

HONG KONG MONETARY AUTHORITY

Briefing to the Legislative Council Panel on Financial Affairs

7 February 2022



HONG KONG MONETARY AUTHORITY

- The Hong Kong Monetary Authority (HKMA)'s main functions are:
 - ➤ To maintain currency stability within the framework of the Linked Exchange Rate System
 - ➤ To promote the stability and integrity of the financial system, including the banking system
 - ➤ To help maintain Hong Kong's status as an international financial centre, including the maintenance and development of Hong Kong's financial infrastructure
 - ➤ To manage the Exchange Fund



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
- Hong Kong Mortgage Corporation

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FINANCIAL AND ECONOMIC ENVIRONMENT



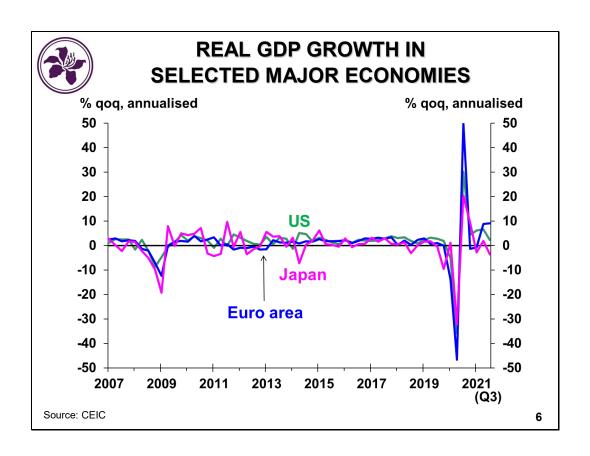
GLOBAL ECONOMIC GROWTH FORECASTS

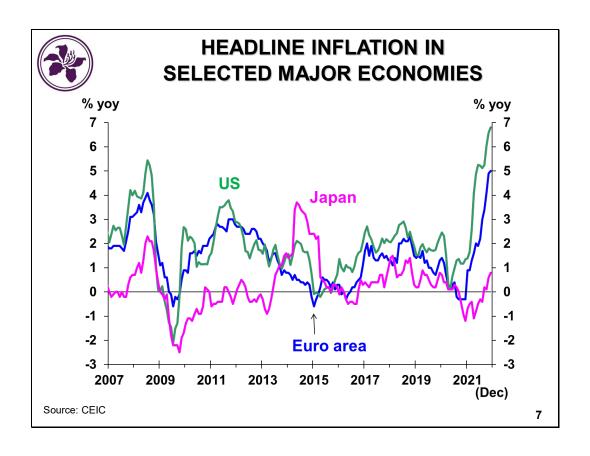
Real GDP Growth

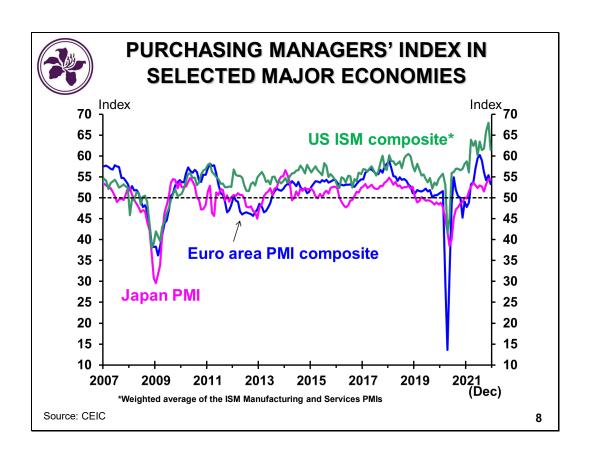
(% year-on-year)

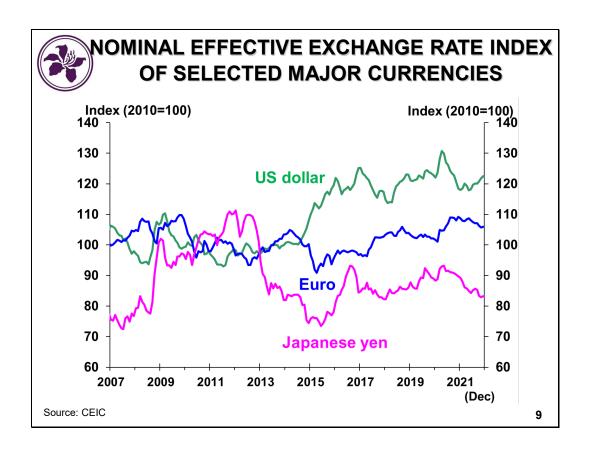
	2020	2021 Forecasts	2022 Forecasts	
us	-3.4	5.6	3.9	
Euro area	-6.5	5.1	4.0	
Japan	-4.7	1.7	3.1	
Asia (ex-Japan)	0.0	7.0	5.1	
Mainland China	2.3	8.1	5.0	
Hong Kong	-6.1	6.5	3.0	

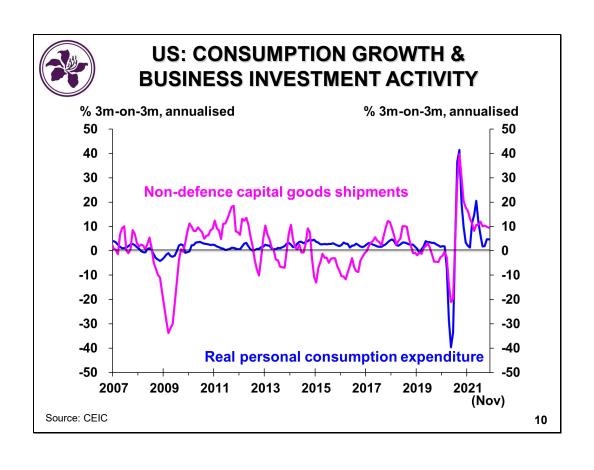
Source: January 2022 Consensus Forecasts

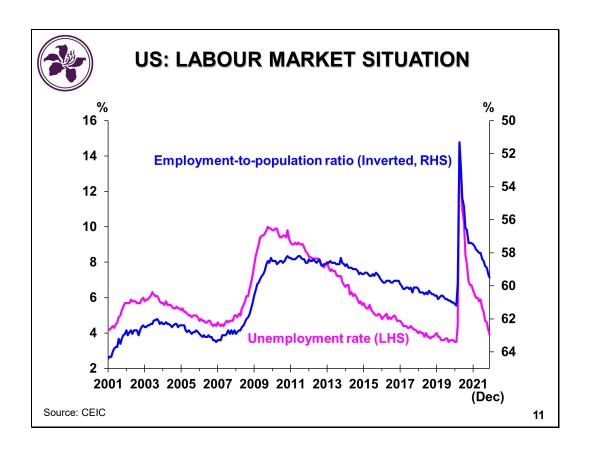


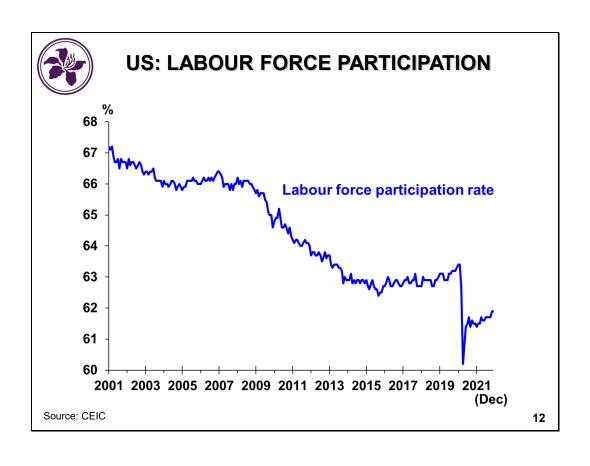


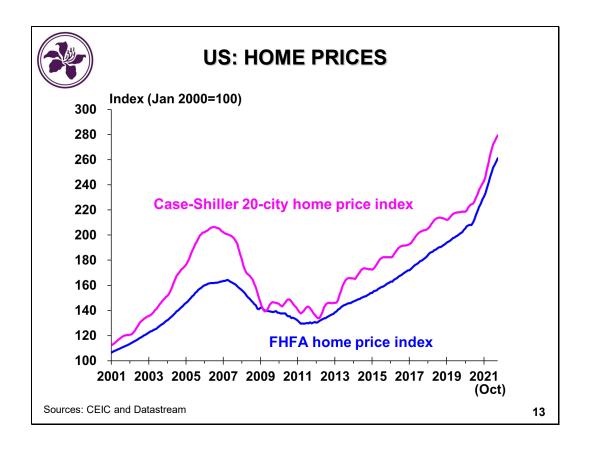


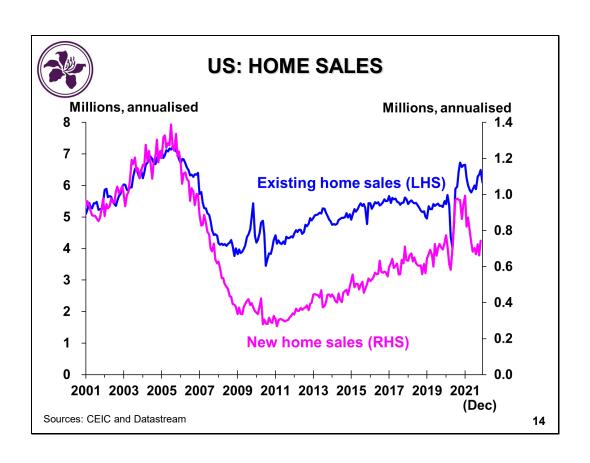


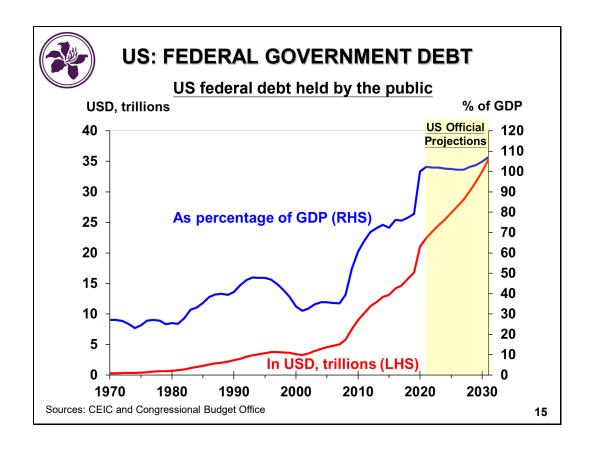


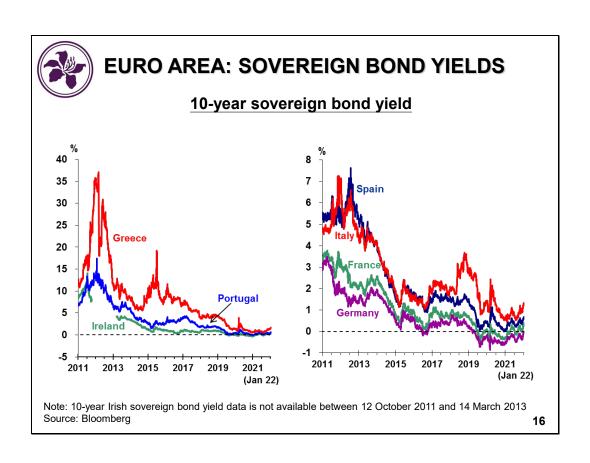


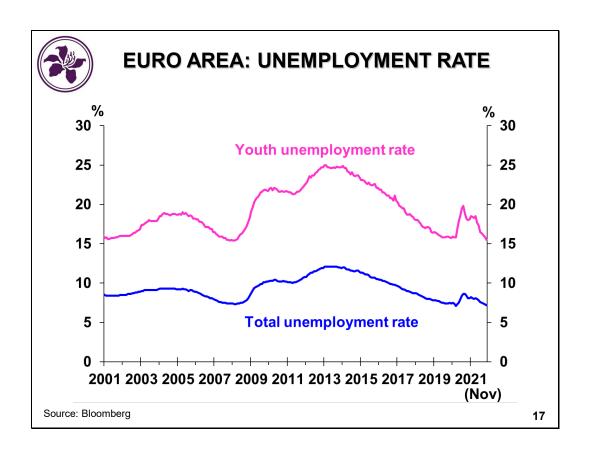


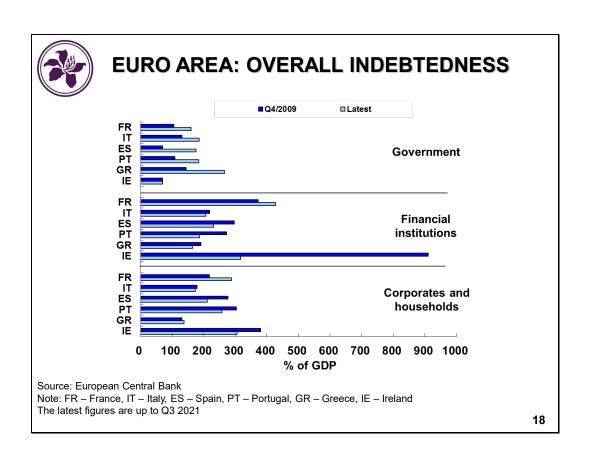


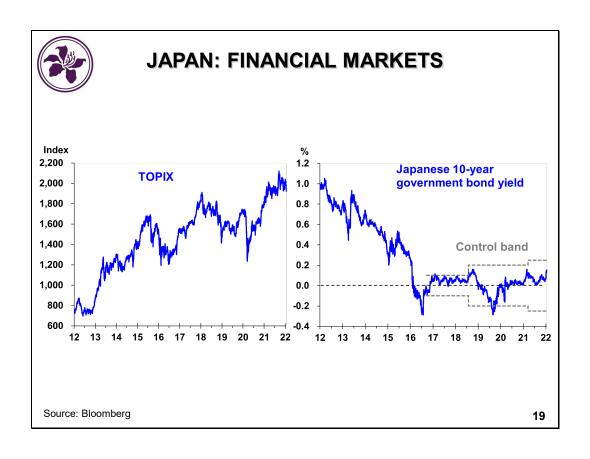


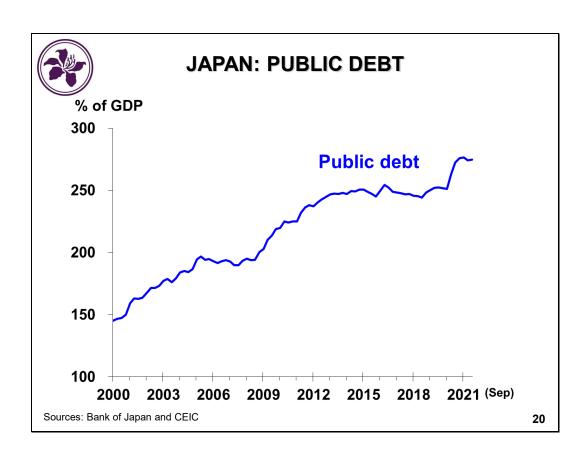


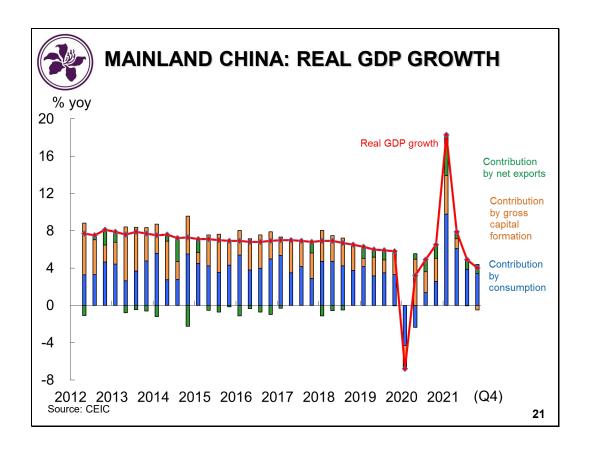


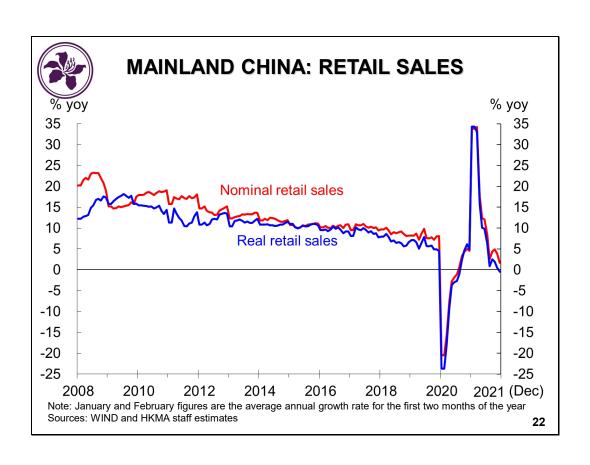


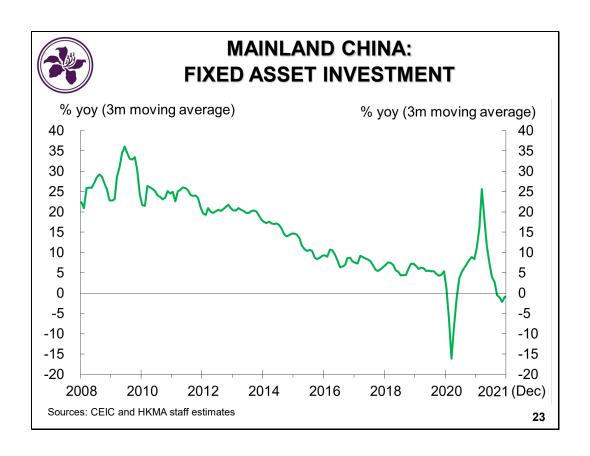


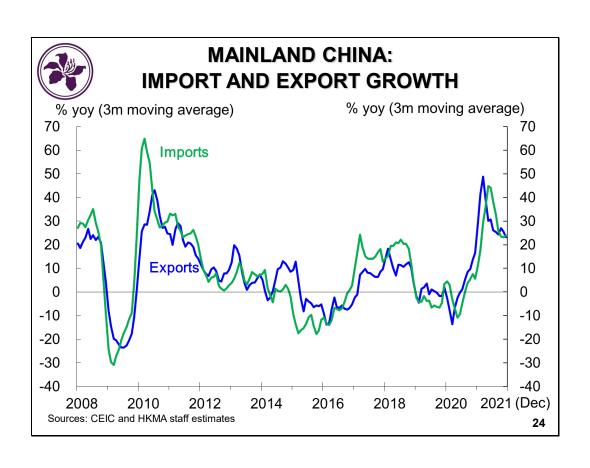


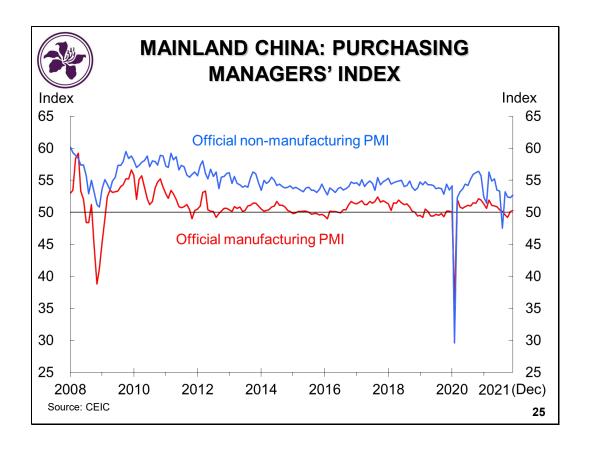


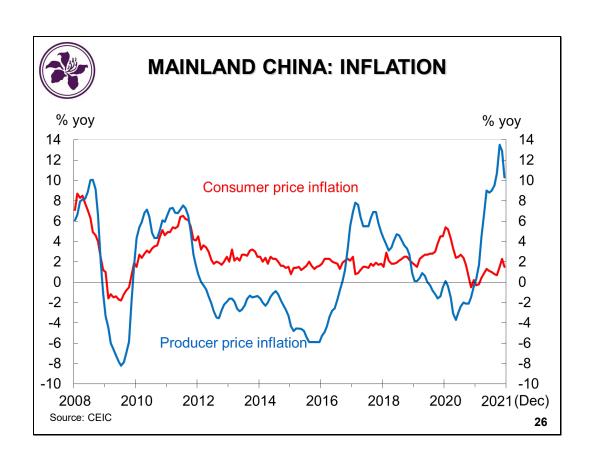


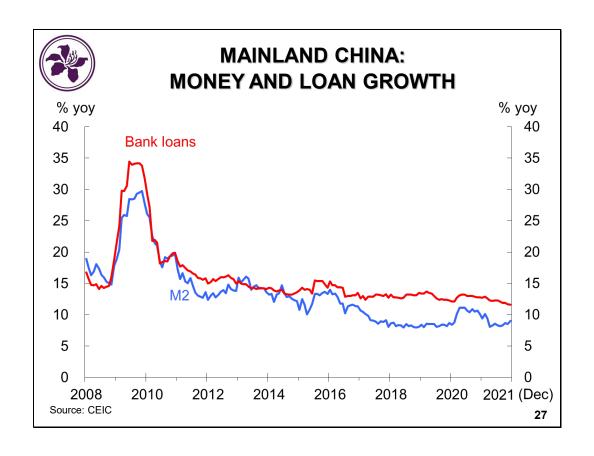


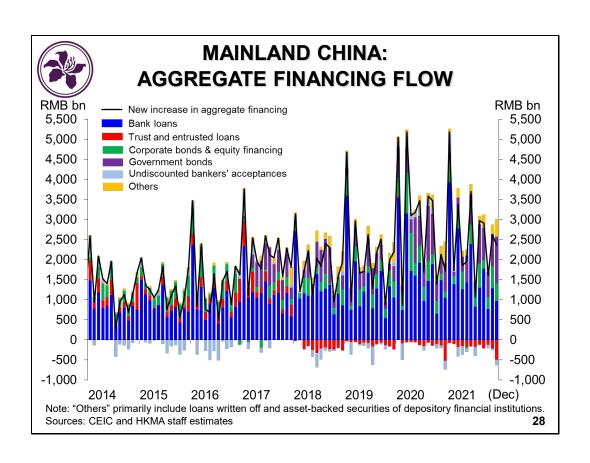


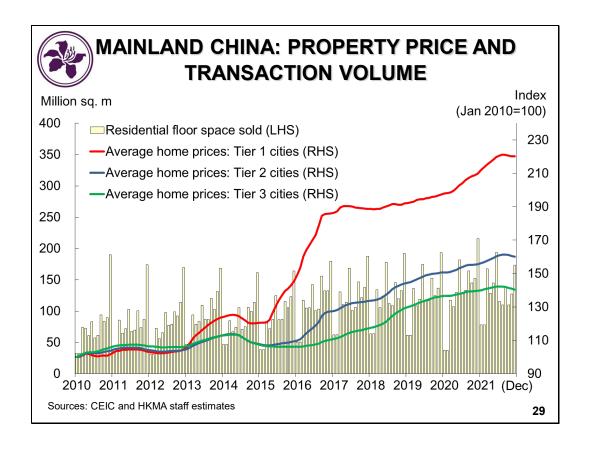


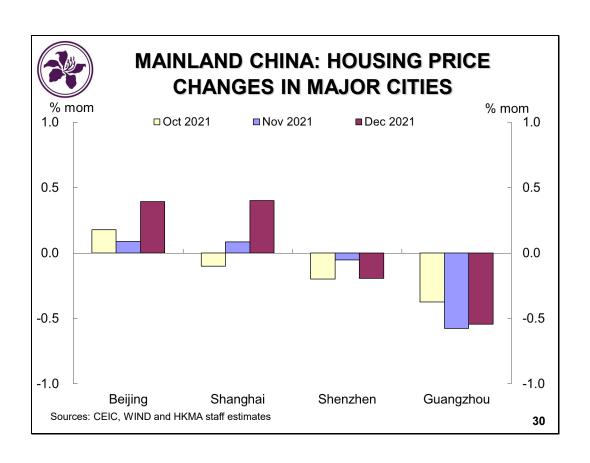


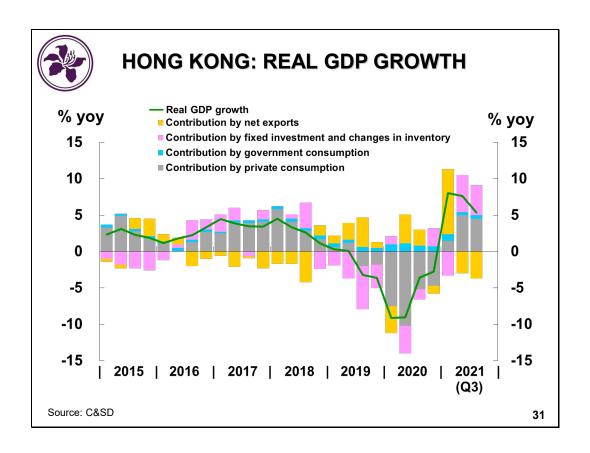


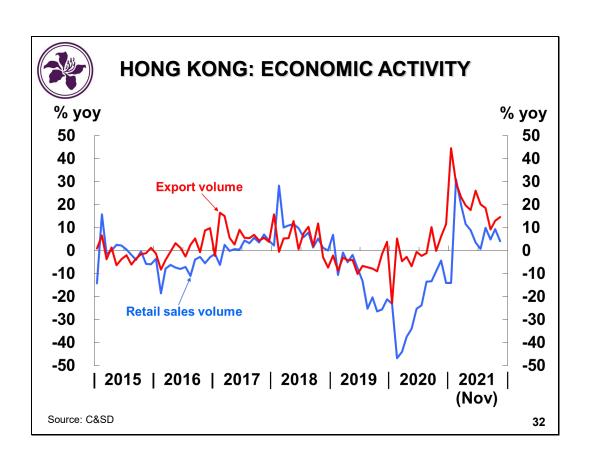


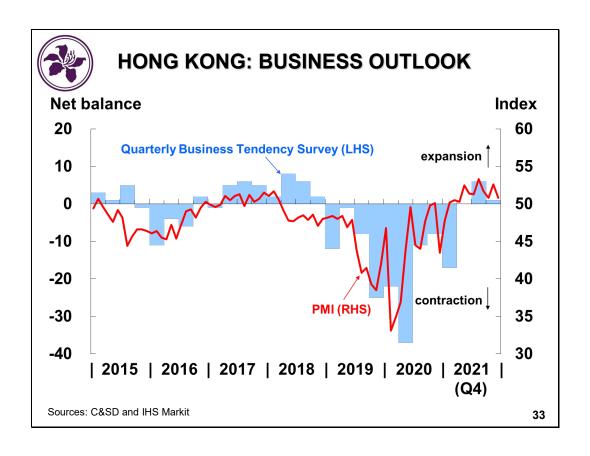


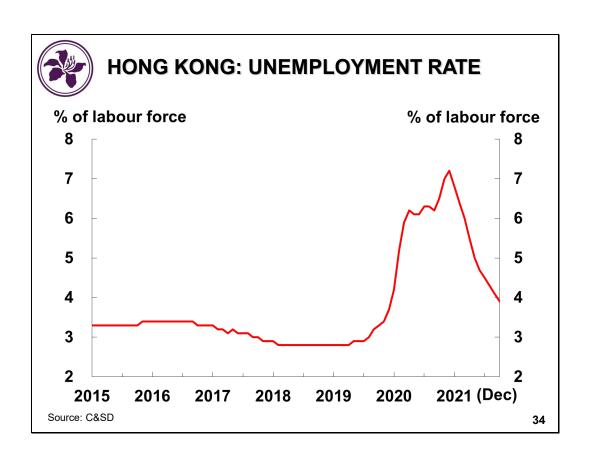


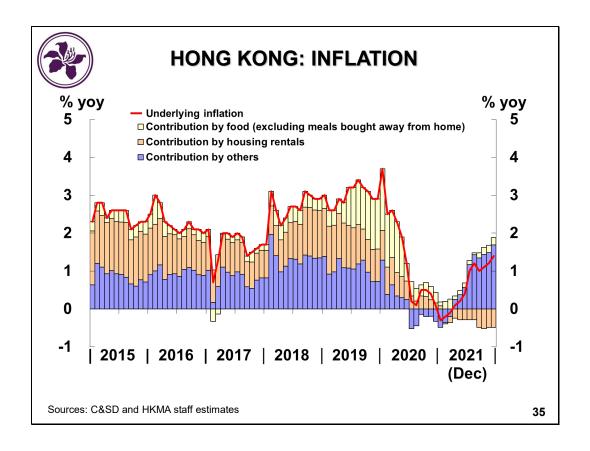


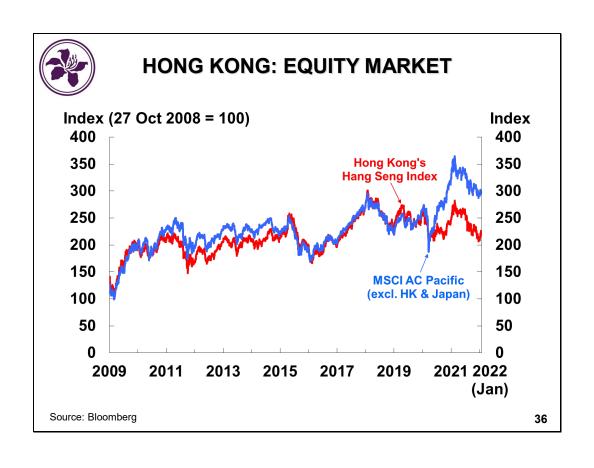


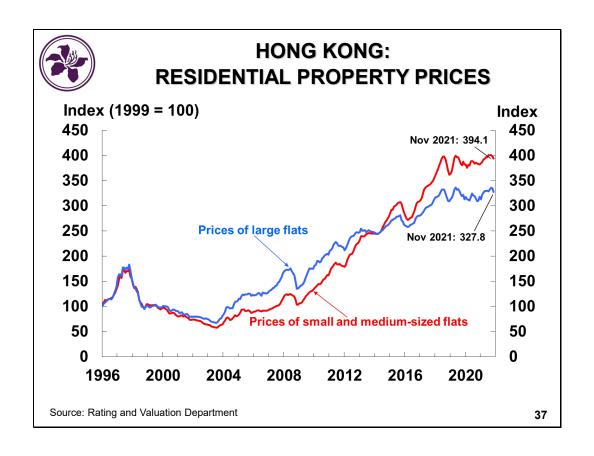


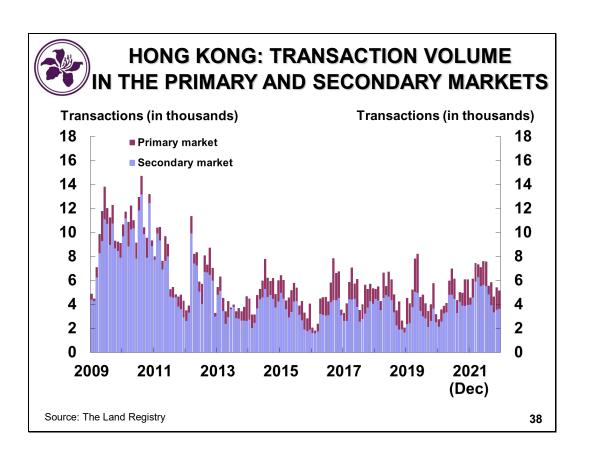


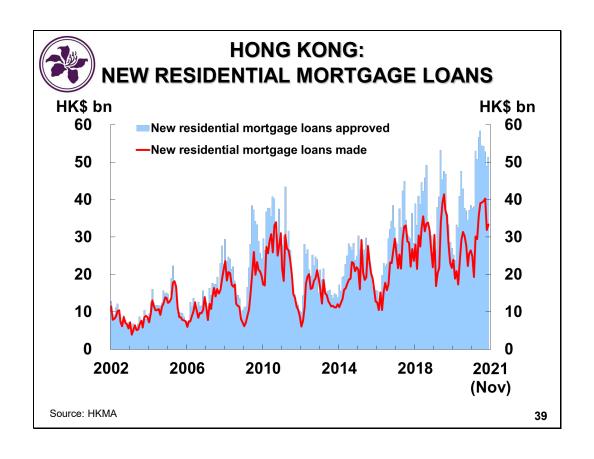


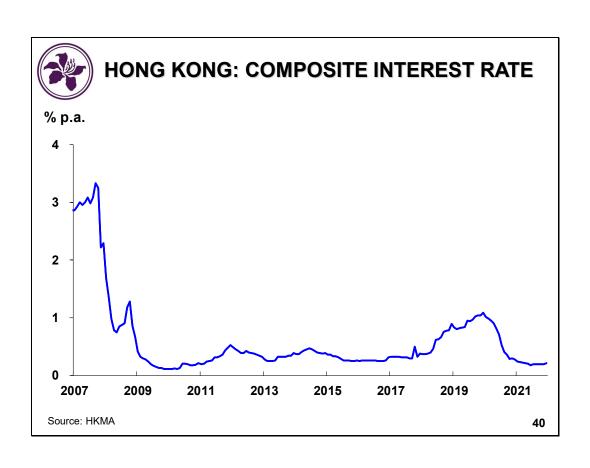


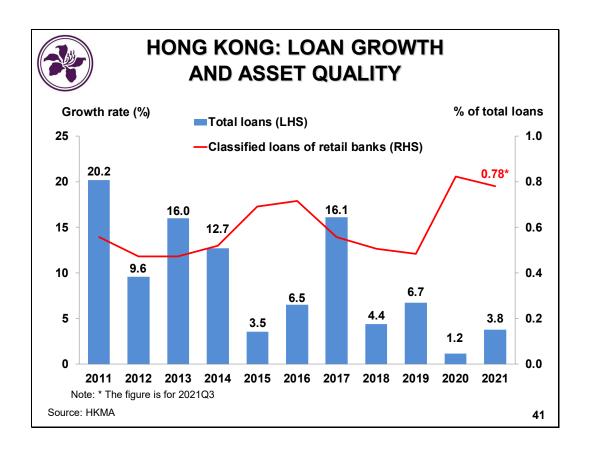


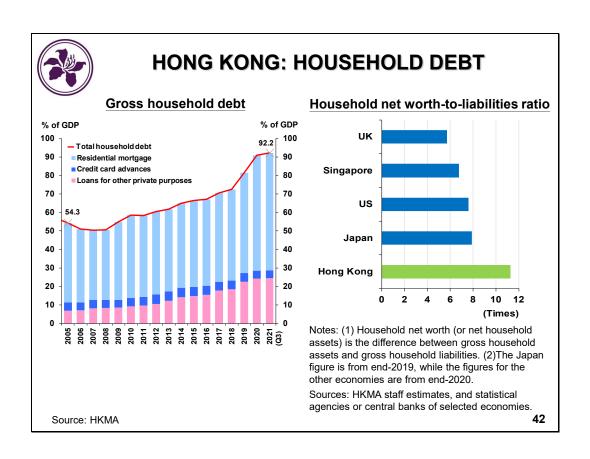






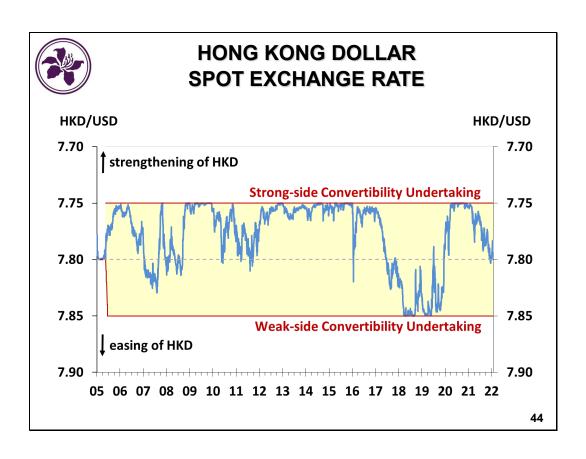


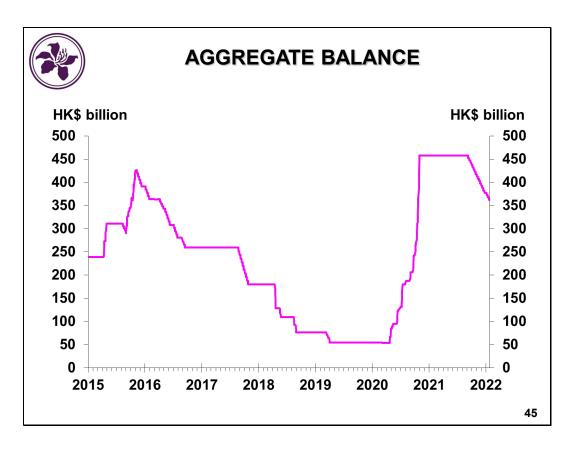




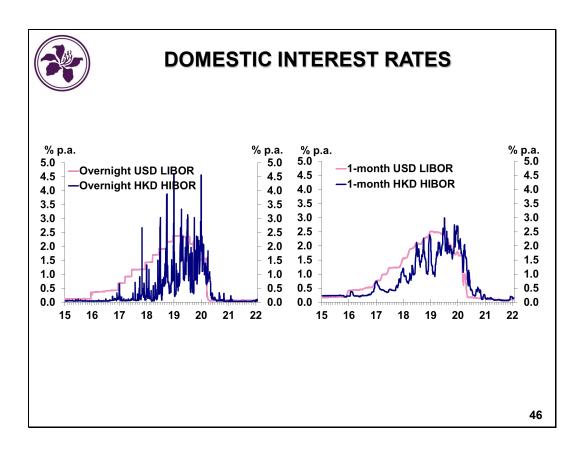


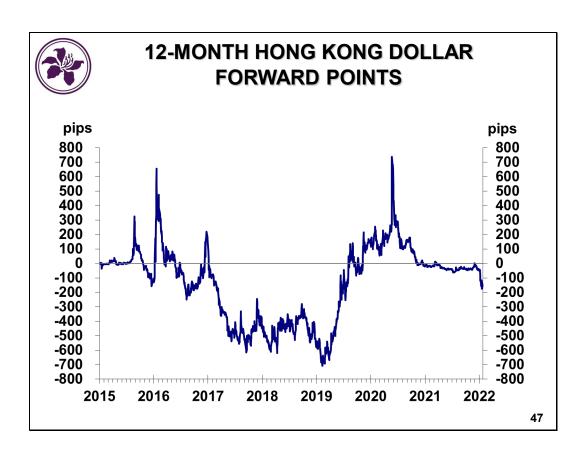
CURRENCY STABILITY





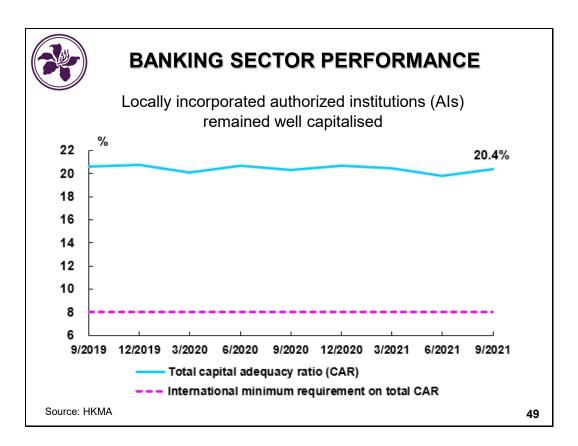
 The HKMA increased or will increase the issuance size of Exchange Fund Bills in September 2021 to February 2022 by a total of HK\$120 billion to meet the ongoing demand for Exchange Fund paper by banks amidst the abundance of liquidity in the banking system. The Aggregate Balance decreases by the same amount as the Exchange Fund Bills increase.



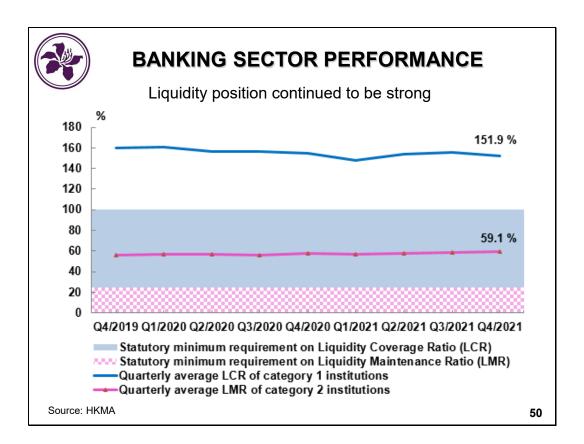




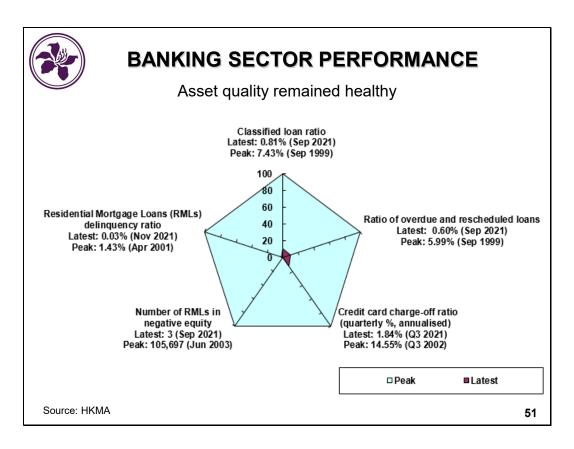
BANKING STABILITY



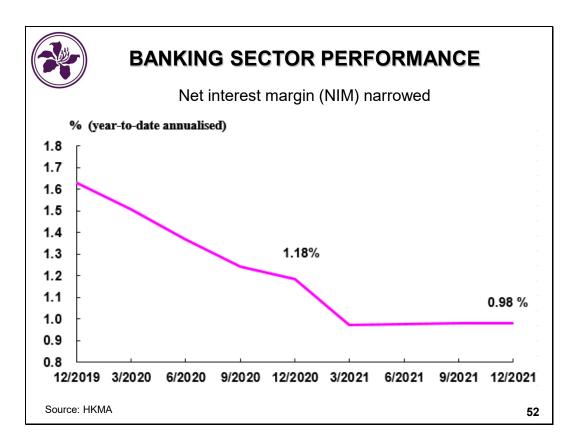
 The banking sector remained well capitalised. The total CAR of locally incorporated Als stood at 20.4% at end-September 2021, well above the international minimum requirement of 8%.



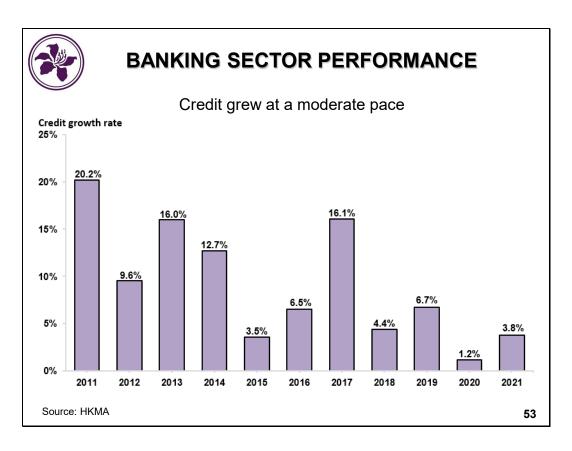
• In the fourth quarter of 2021, the quarterly average LCR of category 1 institutions was 151.9%, well above the statutory minimum requirement of 100%. For category 2 institutions, their quarterly average LMR was 59.1% during the same period, also well above the statutory minimum requirement of 25%.



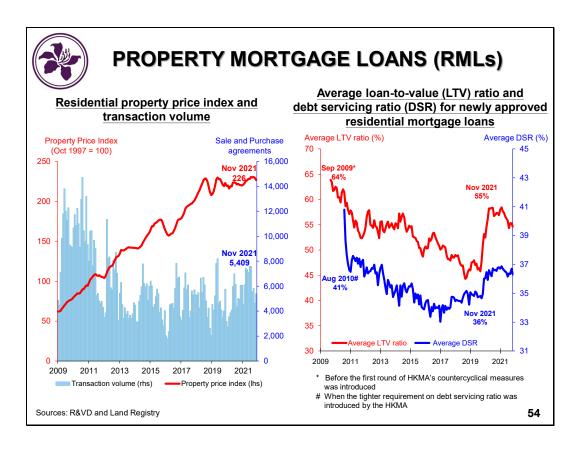
 The classified loan ratio of the banking sector decreased to 0.81% at end-September 2021 from 0.86% at end-June 2021, remaining at a healthy level by historical and international standards.



 The NIM of retail banks' Hong Kong offices narrowed to 0.98% in 2021 from 1.18% in 2020.



• Total loans increased by 3.8% in 2021.



 The average LTV ratio of newly approved RMLs decreased to 55% in November 2021, from the recent peak of 58% in February 2021. The average DSR for newly approved RMLs hovered at around 36% recently.

Latest statistics on RMLs

	Monthly average in 2019	Monthly average in 2020	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021
Number of sale and purchase agreements	4,983	4,990	7,591	7,579	5,546	5,844	4,643	5,409
Number of new RML applications	12,245	11,709	15,326	15,176	13,927	13,327	11,340	12,828
Number of new RMLs approved	8,981	7,763	11,477	10,952	10,895	10,341	9,628	10,122

Latest statistics on residential property prices

Property price index		Period	Property price index
Rating and Valuation Department (10/1997=100)	Latest position	11/2021	226.4
	Recent peak	9/2021	230.3
	Peak in 1997	10/1997	100.0
Centaline (6/7/1997=100)	Latest position	19/12/2021	186.1
	Recent peak	8/8/2021	191.3
	Peak in 1997	19/10/1997	102.9



FIGHTING THE VIRUS AND SUPPORTING THE ECONOMY

- Aggregate number of cases involving credit relief (up to December 2021):
 - ➤ Corporate customers: 83,000 cases (HK\$920 billion)
 - ➤ Individual customers: 52,000 cases (HK\$53 billion)
- The take-up rate of the "Pre-approved Principal Payment Holiday Scheme" (Scheme) is 3%, as compared to 16% when the Scheme was first launched.
- The Scheme has been in place for almost two years and is set to expire at the end of April. The HKMA and the Banking Sector SME Lending Coordination Mechanism are considering ways to strike a balance between banks' need for prudent risk management and supporting corporates that are still hardpressed by the pandemic



INTERNATIONAL STANDARDS IMPLEMENTATION

Basel revised capital treatment on banks' equity investments in funds

Q1 2022: Amendments to Banking (Capital) Rules

Basel III final reforms

 Q1 2023: Amendments to Banking (Capital) Rules and Banking (Disclosure) Rules

Consequential and other technical updates

Q1 2023: Amendments to Banking (Exposure Limits)
 Rules

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Preparatory work for legislative amendments to implement the Basel regulatory standards is progressing:

Year 2022

Targeted to be submitted to LegCo sometime in early 2022 are amendments to the Banking (Capital) Rules to reflect the revised Basel capital requirement on banks' exposures to equity investments in funds.

Year 2023

The above will be followed sometime in early 2023 with the submission of amendments to the Banking (Capital) Rules and the Banking (Disclosure) Rules to implement the Basel III final reforms based on the latest local implementation schedule:

- revisions to the credit risk, operational risk, and leverage ratio frameworks, as well as an output floor for the use of internal models (which are scheduled to take effect from 1 July 2023 as minimum standards for locally incorporated Als);
- revised market and credit valuation adjustment risk frameworks which are scheduled to take effect from 1 July 2023 initially for reporting purposes only by locally incorporated Als (and no earlier than 1 January 2024 for the actual capital requirements); and
- revisions to the disclosure requirements to reflect the above revised capital frameworks.

Following the amendments to the Banking (Capital) Rules, some consequential amendments to the Banking (Exposure Limits) Rules will also be submitted in early 2023 along with certain technical refinements to enhance clarity and better reflect the policy intent of some existing provisions.



ANTI-MONEY LAUNDERING AND COUNTER-FINANCING OF TERRORISM (AML/CFT)

- In collaboration with Cyberport, launched first AML Regtech Lab (AMLab) during Hong Kong Fintech Week 2021 to further encourage use of Regtech under "Fintech 2025" strategy
- Five banks worked with data experts using synthetic data for the first time to explore use of digital footprints and conduct network analysis
- AMLab will strengthen banks' capabilities to apply Regtech tools to prevent and detect abuse of bank accounts for illicit activities and protect customers from fraud and financial crime losses

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AML Regtech Lab (AMLab)

- The HKMA, in collaboration with Cyberport, launched first AMLab during Hong Kong Fintech Week 2021 to further encourage the use of Regtech under the "Fintech 2025" strategy.
- The first group of five banks had:
 - ➤ for the first time, helped by data experts, used synthetic data to experiment with network diagrams for identifying suspected money mule network;
 - ➤ learnt how to integrate alternative data (e.g. IP address) into more traditional data sets (e.g. transactional data) for analysis; and
 - developed skills and capabilities to apply network analytics to identify hidden money laundering risks.
- AMLab will strengthen banks' capabilities to apply Regtech tools to prevent and detect abuse of bank accounts for illicit activities and protect customers from fraud and financial crime losses, as well as to reduce risk displacement across the banking sector and raise the overall effectiveness of the AML ecosystem.



RESOLUTION REGIME

 Published on 22 December 2021 a code of practice chapter which provides guidance on the operation of certain provisions in the Financial Institutions (Resolution) (Contractual Recognition of Suspension of Termination Rights—Banking Sector) Rules

- Following the coming into operation on 27 August 2021 of the Financial Institutions (Resolution) (Contractual Recognition of Suspension of Termination Rights—Banking Sector) Rules (Cap. 628C) ("Stay Rules"), a new chapter of the code of practice ST-1 "Resolution Planning Contractual Recognition of Suspension of Termination Rights" was issued by the Monetary Authority under the Financial Institutions (Resolution) Ordinance (Cap. 628) on 22 December 2021. The chapter provides guidance on the operation of certain provisions in the Stay Rules.
- Comments from the industry consultation on the draft chapter have been reflected as appropriate.



GREEN AND SUSTAINABLE BANKING

- Following industry consultation in Q3 2021, supervisory requirements on climate risk management were finalised
- Shared sound practices to support transition to carbon neutrality
- Published results of pilot exercise on climate risk stress testing
- To operationalise the Common Ground Taxonomy (CGT) to achieve interoperability, comparability and inclusiveness
- To continue assessing "greenness" of banks regarding their measures in climate risk management and practices in green businesses

- Following an industry consultation on our draft supervisory policy module (SPM) on climate risk
 management in the third quarter of 2021, the SPM was finalised in December 2021. The SPM
 sets out the high level principles covering governance, strategy, risk management and disclosure.
 Banks are given 12 months to implement the guidance.
- The HKMA issued a circular on 8 December 2021 to share with the industry some sound practices adopted by banks to support the transition to carbon neutrality. These sound practices are grouped into four areas, namely reducing greenhouse gas emissions of own operations, reducing financed emissions through portfolio alignment, assisting clients to transition, and promoting collective efforts to assist the economy to net zero transition. These sound practices would be of reference value to banks in formulating their own climate strategies.
- The HKMA undertook a pilot exercise on climate risk stress test in 2021 to assess the climate resilience of the banking sector as a whole and facilitate banks' capacity building in measuring climate risks. A report was published in December 2021 to share the results of the exercise with the industry.
- The International Platform on Sustainable Finance issued the CGT report on 4 November 2021. We have been working with other financial regulators with the aim to operationalising the CGT. We will explore developing a local green classification framework facilitating navigation among the CGT, China and European Union green definitions, for adoption across different financial sectors. We will also explore including other definitions of green and "transitional" activities, as well as any other local considerations.
- Further to the first round of "greenness assessment" conducted in 2020, we will revamp the framework to reflect the supervisory requirements on climate risk management and potentially cover a wider scope, such as green business activities. We will engage the industry during the process and expect to launch the revamped framework in late 2022.



ENHANCED COMPETENCY FRAMEWORK (ECF)

- Launched the Fintech module on 3 December 2021
- To conduct an industry consultation on the new Compliance module in Q1 2022
- Commenced preparatory work for developing a new module on Green and Sustainable Finance (GSF)

- The HKMA launched the ECF on Fintech on 3 December 2021. This new module aims to develop an all-rounded fintech competency framework to build up a fintech talent pipeline and enhance the professional competence of fintech practitioners working in such functions as fintech solution development, fintech product design, fintech strategy and management, and Regtech. The training programmes will cover topics related to various applications of fintech, including artificial intelligence, big data analytics, and Regtech, etc.
- The HKMA will roll out new ECF modules for other professional areas where talent shortages are more apparent. In particular, the HKMA aims to launch a new ECF on Compliance in 2022 after conducting a formal industry consultation in the first quarter of 2022. The HKMA has also commenced preparatory work for developing a new module on GSF to cater for the strong demand of the industry for talent with GSF knowledge and skill sets.



FINANCIAL INCLUSION

- Issuance of Guideline on Banking Services for Persons with Dementia
- Ongoing engagement with business community on bank account opening and maintenance

- The HKMA has worked with Hong Kong Association of Banks (HKAB) in engaging relevant stakeholders to develop the Guideline on Banking Services for Persons with Dementia. The Guideline was issued by HKAB in December 2021 setting out the principles and good practices recommended for the banking industry in the provision of banking services to persons with dementia and customers in need. Meanwhile, the HKMA issued a circular to set out the expectation that banks should observe the principles and recommended practices stipulated in the Guideline.
- The HKMA's dedicated email account and hotline continued to be in operation and made available for the public as well as the local and overseas business community to lodge enquiries and provide feedback on account opening and maintenance matters. The HKMA has also continued its efforts to facilitate direct dialogue among the banking industry and business sector for the exchange of views and sharing of practical experiences in respect of account opening and maintenance.



BANKING CONSUMER PROTECTION

- Enhanced the Code of Banking Practice to strengthen customer protection in digitalised banking services
- Working closely with Industry Associations to introduce more than one consumer Credit Reference Agency (CRA)
- Published Interim Report on Focused Review on Incentive Systems of Front Offices in Retail Banks
- Launched consultation on Payment Arrangements for Property Transactions (PAPT)
- Enhanced protection for real-time fund transfers
- Issued circular to provide guidance to banks on sharing customers' personal data to third parties for direct marketing
- The HKMA is committed to strengthening and enhancing consumer protection with respect to digital banking services. Upon completing a comprehensive review, 15 enhancement measures were introduced to the Code of Banking Practice. These measures will 1) enhance customer experience and consumer protection in digital banking services; 2) strengthen protection and transparency of general banking services; and 3) ensure the spirit of financial inclusion is put into practice amidst digitalisation of banking services.
- The HKMA has been working closely with Hong Kong Association of Banks (HKAB), DTC Association (DTCA) 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 is in progress, and the new platform is expected to be in operation by the end of 2022.
- In March 2021, the HKMA embarked on a large-scale Focused Review on incentive systems of front offices of 20 retail banks as part of the ongoing supervisory work to promote sound culture in the banking sector. As a key activity of the Focused Review, an industry-wide employee survey inviting all frontline staff of retail banks to gauge their perceptions on their banks' incentive systems and culture was completed in May 2021, with a response rate of 70%. The HKMA has published an interim report in November 2021 to share the preliminary observations so far. We are advancing to the next phase of the Focused Review, and aim to share the results of the whole review with the industry in 2022.

- Since the intervention into the practice of Messrs. Wong, Fung & Co at end-2020, the banking industry and HKMA have been looking into PAPT to replace the current practice of routing such payments through the client accounts of the law firms, with a view to enhancing protection to all parties in the transaction. In December 2021, HKAB and DTCA launched a consultation with their members on the PAPT proposal. The banking industry is expected to take three to six months to prepare for implementation of PAPT after the finalisation of the PAPT proposal. This includes the time required for system and process development as well as staff training.
- To enhance protection in respect of real-time fund transfer by bank customers, the HKMA has issued a circular in December 2021 to require banks to conduct name matching on real-time fund transfer of HK\$10,000 or above effected through Faster Payment System and intra-bank fund transfer of similar nature, where a payer inputs payee's bank account number as the identifier for the fund transfer. Banks are also required to display a reminder to the payer to carefully verify the payee's account number and other payment details before confirming the online fund transfers.
- Given the special trust relationship between banks and their customers, and some of the
 third parties are not subject to any regulatory regime like that of banks, the HKMA
 considers that banks should aspire to a higher standard on protection of customer data
 when providing customer data collected through online channels to third parties for direct
 marketing purpose. The HKMA issued a circular in November 2021 to provide guidance
 on the approaches Als should adopt when sharing customers' data for direct marketing by
 third parties.



BANKING INVESTOR PROTECTION

- Launched the Cross-boundary Wealth Management Connect Pilot Scheme
- Issued a joint circular with the Securities and Futures Commission (SFC) on distribution of insurance-linked securities (ILS) and related products
- Working with SFC to provide guidance on provision of investment services related to virtual assets (VAs)
- Collaborated with the Insurance Authority (IA) and the Mandatory Provident Fund Schemes Authority (MPFA) on instituting a joint mystery shopping programme on selling practices for two tax-deductible products

- Following the promulgation of the Implementation Arrangements for the Cross-Boundary WMC in September 2021, the HKMA announced in October 2021 a list of 19 eligible banks in Hong Kong which can launch Cross-boundary WMC services.
- The HKMA and the SFC issued a joint circular in October 2021 to remind intermediaries
 of important investor protection measures in distributing ILS and related products. In
 particular, same approach should be adopted when identifying target investors for ILS and
 related products irrespective of whether issued in or outside Hong Kong. The circular
 also makes it clear that ILS funds (i.e. funds whose investment objective or principal
 investment strategy is investing in ILS) in general are unsuitable for retail investors.
- The HKMA is working with the SFC to provide further guidance concerning provision of investment services related to VAs by intermediaries. There is a range of risks associated with investing in VAs by customers, and these risks are not reasonably likely to be understood by a retail investor. Hence, there is a need to impose additional investor protection measures to the distribution of VA-related products.
- The IA, the MPFA and the HKMA issued a joint circular in December 2021 on the conduct
 of a joint mystery shopping programme on selling practices of intermediaries in respect of
 two tax-deductible products, namely Qualifying Deferred Annuity Policies and
 Tax-deductible MPF Voluntary Contributions. Observations identified through the
 programme will be shared with the industry as appropriate.



PUBLIC EDUCATION

- Reminded the public of the issues to note when assessing personal loan products for tax payment
- Launched various initiatives to encourage the public to give laisee through electronic channels
- · Through the HKMA's digital media channels
 - Promoted the Cross-boundary Wealth Management Connect Scheme and the HKMA's new Fintech initiatives, including the Commercial Data Interchange (CDI)
 - Shared the key takeaways of HKMA and industry seminars







- Arranged radio promotion during tax season to remind the public of the issues to note when assessing personal loan products for tax payment.
- Launched social media posts, video, radio and animated stickers before the Chinese New Year to encourage the public to give lai-see through electronic channels, and to remind them of issues to note about exchanging new notes.
- Through the HKMA's digital media channels:
 - Promoted the Cross-boundary Wealth Management Connect Scheme with creative media content; also highlighted the features of the HKMA's new fintech initiatives including the CDI and AML Regtech Lab (AMLab) series; and
 - Shared the key takeaways of the HKMA and industry seminars, keeping the public abreast of the latest development trends in fintech, Regtech, as well as green and sustainable banking.



DEPOSIT PROTECTION SCHEME (DPS)

- Completed a payout rehearsal in Q4 2021 to ensure the overall payout readiness
- Held a media briefing to announce the findings of the "Hongkongers' Sense of Security on Savings" survey and implemented a series of educational radio programmes
- Participated in "The 55th Hong Kong Brands and Products Expo" with a drama performance to engage the public to promote the DPS



- A payout rehearsal was conducted in November 2021. The results once again illustrated that the Hong Kong Deposit Protection Board has the capability to pay DPS compensation to depositors within the seven-day target. The rehearsal also demonstrated that the adoption of electronic payment channels could further improve the speed of making compensation payment to depositors.
- A series of publicity initiatives were conducted to promote the public awareness and understanding of the DPS:
 - Conducted the fourth "Hongkongers' Sense of Security on Savings" Survey studying Hong Kong people's saving habits and organised a media briefing announcing the survey findings in November 2021;
 - Collaborated with RTHK Radio 2 to produce and broadcast a half-year long educational radio programmes, including drama series, 1-minute infosegments, and DPS quiz competition with recorded videos sharing on RTHK's social media platforms;
 - Implemented a multi-media advertising campaign themed "Bank Deposits Always Come With Protection"; and
 - Rolled out the second rounds of "E-stamps Collection" campaign and "Street Interviews" video campaign on the DPS Facebook page to engage the public via digital channels.
- At the 55th Hong Kong Brands and Products Expo, information panels, interactive educational games, and an on-stage DPS talk cum drama were utilised to engage visitors and promote the knowledge of DPS key features.



FINANCIAL INFRASTRUCTURE



FINANCIAL INFRASTRUCTURE: OVERVIEW

Payment systems

- Four Real Time Gross Settlement (RTGS) Systems for HKD, RMB, USD and Euro:
 - ➤ Average daily turnover in 2021 reaching HK\$940 billion, RMB1,523 billion, US\$50 billion and €0.5 billion respectively
- Faster Payment System:
 - ➤ 9.62 million registrations at end-2021; the average daily volume of Hong Kong dollar transactions in 2021 rose by 90% from 2020 to 670,000

Central Moneymarkets Unit (CMU)

- · Providing settlement and custodian service for debt securities
 - ➤ HK\$2,211 billion equivalent outstanding debt securities lodged with CMU at end-2021
- · Supporting Bond Connect
 - ➤ 3,233 institutional investors at end-2021; RMB26 billion average daily turnover in 2021 for Northbound Trading

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

• 3,251,179 outstanding transactions at end-2021

New fintech initiatives

E.g. Commercial Data Interchange, Multiple Central Bank Digital Currency (CBDC)
 Bridge (mBridge) project



FINANCIAL INFRASTRUCTURE : CURRENT PROGRESS

- Financial infrastructure remains safe and efficient
- Operation of Bond Connect has been smooth; following the launch of Northbound Trading in 2017, Southbound Trading was also launched on 24 September 2021
- Further refine the Hong Kong Trade Repository (HKTR) for over-the-counter derivatives according to the relevant local and international standards

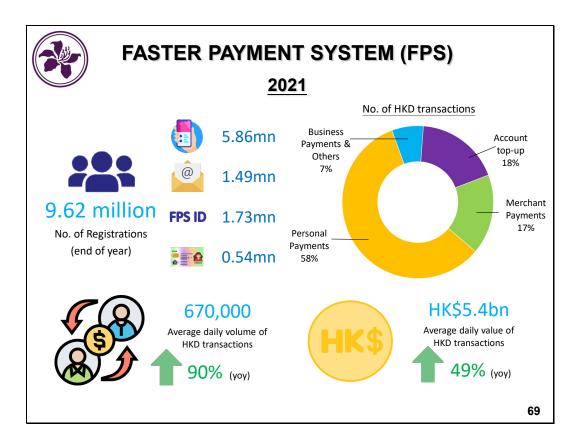
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Bond Connect

- Since the launch of Bond Connect on 3 July 2017, the related settlement operations performed by the Central Moneymarkets Unit have been smooth.
- With the Delivery-versus-Payment settlement fully implemented in August 2018, as well as the inclusion of renminbi-denominated Mainland government and policy bank securities into the Bloomberg Barclays Global Aggregate Index in April 2019, J.P. Morgan Government Bond Index-Emerging Markets in February 2020 and FTSE World Government Bond Index in October 2021, more overseas investors have started to invest in the Mainland interbank bond market via the Bond Connect. The HKMA has been maintaining close communications with the People's Bank of China (PBoC) and other relevant Mainland institutions to explore enhancements to Northbound Trading.
- The HKMA and PBoC jointly announced on 15 September 2021 the implementation of Southbound Trading under Bond Connect which was launched on 24 September. By strengthening the cooperation of the financial infrastructure services institutions of the two jurisdictions, Southbound Trading aims to provide Mainland institutional investors with a convenient, efficient and secure channel to allocate to offshore bond assets through the Hong Kong bond market with flexibility.

Over-the-counter derivatives trade repository (HKTR)

• Since the reporting function of the HKTR was launched in July 2013, reporting by banks to the HKTR has been smooth.



- The number of registrations and turnover of the FPS have been growing steadily. Since the launch of the system till end-December 2021, the FPS recorded 9.62 million registrations (including 5.86 million in mobile number, 1.49 million in email address, 1.73 million in FPS ID and 0.54 million in HKID number), up by 40% or 2.7 million registrations year-on-year (yoy).
- The turnover of the FPS continues to grow. The average number of Hong Kong dollar real-time transactions per day in 2021 rose by 90% from 2020 to 670,000. Average daily value of Hong Kong dollar real-time transactions also rose by 49% to HK\$5.4 billion in 2021.
- The usage of FPS has expanded gradually to merchant payments (including personal and corporate payments to merchants, for example, bill payments and retail payments at merchants, etc.) and account top-up transactions in 2021 from primarily P2P transactions previously.



LATEST FINTECH INITIATIVES

- Guangdong-Hong Kong-Macao Greater Bay Area (GBA) Fintech Innovation Supervisory "Network Link-up"
- Considerable progress made on initiatives under the "Fintech 2025" Strategy:
 - Retail Central Bank Digital Currency (CBDC): released a technical whitepaper on e-HKD
 - Wholesale CBDC: identified 15 potential use cases, with priority to pilot the international trade settlement use case in 2022
 - Announced the pilot launch of the Commercial Data Interchange (CDI)
 - Launched Fintech Supervisory Sandbox (FSS) 3.0
- Co-organised with InvestHK "Hong Kong FinTech Week 2021", attracting over 20,000 attendees and more than 4 million online views from 87 economies

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GBA Fintech Innovation Supervisory "Network Link-up"

- ➤ The HKMA and People's Bank of China (PBoC) jointly announced on 21 October 2021, the signing of a Memorandum of Understanding which links up the PBoC's Fintech Innovation Regulatory Facility with the HKMA's FSS, in the form of a "network".
- ➤ The "network link-up" provides a "one-stop platform" that allows eligible financial institutions and tech firms to conduct pilot trials of cross-boundary fintech initiatives, concurrently in HK and Mainland GBA cities.

Retail CBDC research

- Making reference to the technical model under Project Aurum, a joint technical study with the Bank for International Settlements Innovation Hub (BISIH) Hong Kong Centre on retail CBDC, the HKMA published a technical whitepaper on e-HKD in October.
- ➤ The whitepaper explores potential technical design options for issuing and distributing retail CBDCs, and invites feedback and suggestions from academia and industry on the proposed architecture.

Wholesale CBDC research: the Multiple CBDC Bridge (mBridge) Project

- ➤ The HKMA, the participating authorities and the BISIH Hong Kong Centre identified and published 15 potential business use cases under the project on 3 November 2021, involving a total of 22 private sector participants from financial institutions, banking associations and exchange.
- ➤ In one of the use cases, testing of sample trade settlement transactions across 11 industries and four jurisdictions has commenced on the trial platform and is expected to enter pilot stage from 2022 onwards.

· CDI

- ➤ The HKMA has completed two phases of Proof-of-Concept study on applying alternative data to facilitate the underwriting of small and medium-sized enterprises (SME) loans over 550 SME loans amounting to over HK\$900 million were approved by the participating banks as of 1 November 2021.
- ➤ The HKMA announced the pilot launch of CDI on 3 November 2021, with the participation of eight pairs of banks and data providers.

FSS 3.0

- ➤ To promote innovation and encourage collaboration between banks and local tech firms, the HKMA enhanced its FSS in November 2021.
- ➤ Up to HK\$1 million of funding support will be provided, under the Innovation and Technology Commission's Public Sector Trial Scheme via the FSS 3.0, for eligible projects in areas such as Regtech and Cybersecurity.

Hong Kong FinTech Week 2021

- The hybrid event was held from 1 to 5 November 2021.
- ➤ The event was host to over 300 speakers, more than 400 exhibitors, and 39 international delegations and representatives. It was well received, with 27 satellite events and thousands of business meetings arranged through the event and via the online platforms.



STORED VALUE FACILITIES (SVFs) AND RETAIL PAYMENT SYSTEMS (RPSs)

- SVF usage continued to grow in Q3 2021:
 - ➤ Accounts in use: 65.57 million (+2.5% year-on-year (yoy))
 - > Average daily transaction value: HK\$796 million (+30.0% yoy)
 - > Licensees continue to extend their business reach
- 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

- In June 2021, the HKMA and the SFC jointly published the consultation conclusion paper on the annual update of the Financial Services Providers (FSP) list. The revised FSP list was gazetted in December and became effective on 1 January 2022
- As of end-December 2021, the Hong Kong Trade Repository logged a total of 3.25 million outstanding OTC derivatives trades, covering five asset classes under mandatory reporting requirements, i.e. foreign exchange, interest rate, equity, credit, and commodity derivatives

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• Under the Hong Kong OTC Derivatives Clearing Rules (Clearing Rules), 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 Securities and Futures Commission perform annual review and public consultation of the FSP list to ensure the list remains relevant and appropriate.



INTEREST RATE BENCHMARK REFORMS

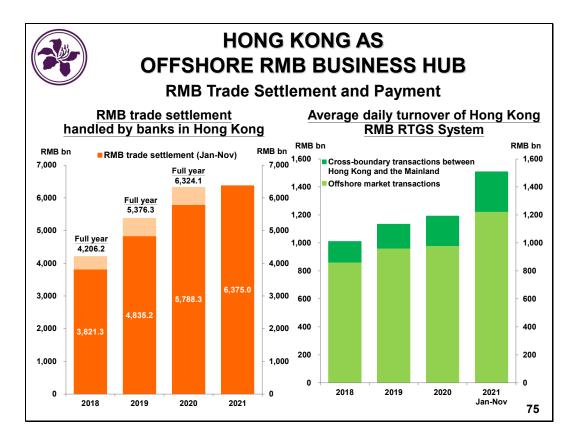
- The HKMA is:
 - actively participating in discussion in international fora and closely monitoring relevant developments;
 - working with the Treasury Markets Association to encourage the use of Hong Kong Dollar Overnight Index Average (HONIA), gauging industry views and promoting market awareness; and
 - continuing to facilitate Als in preparing for the discontinuation of the remaining US dollar LIBOR

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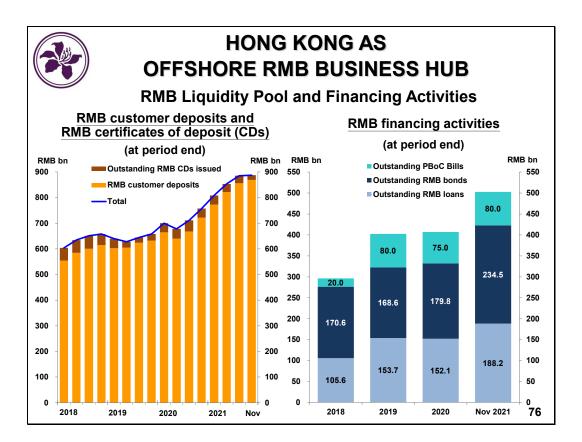
• The UK Financial Conduct Authority (FCA) has discontinued all sterling, euro, Swiss franc and Japanese yen LIBOR settings, and the 1-week and 2-month US dollar LIBOR settings after 31 December 2021 as planned, and new contracts should use the respective alternative reference rates. To facilitate a 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 eleven months of 2021, renminbi trade settlement handled by banks in Hong Kong totalled RMB6,375.0 billion.
- In the first eleven months of 2021, the average daily turnover of Hong Kong RMB Real Time Gross Settlement (RTGS) system stood at RMB1,508.3 billion.



- As at end-November 2021, renminbi customer deposits and outstanding renminbi CDs amounted to RMB868.7 billion and RMB18.5 billion respectively, totalling RMB887.2 billion.
- As at end-November 2021, outstanding renminbi loans amounted to RMB188.2 billion. Outstanding dim sum bonds amounted to RMB234.5 billion. Outstanding PBoC bills amounted to RMB80 billion.



MUTUAL MARKET CONNECT SCHEMES

• Stock Connect trading activities continued to register strong growth:

Stock Connect Average Daily Turnover	2021	2020	YoY growth
Shanghai-HK (Northbound) (RMB bn)	55.2	39.1	+41%
Shenzhen-HK (Northbound) (RMB bn)	65.0	52.2	+24%
Shanghai-HK (Southbound) (HKD bn)	20.1	13.1	+53%
Shenzhen-HK (Southbound) (HKD bn)	21.6	11.3	+91%

- Northbound Trading under Bond Connect continued to see active trading. Average daily turnover amounted to RMB25.8 billion in 2021, up 34% compared to 2020
- Southbound Trading under Bond Connect launched in September 2021, facilitating the two-way opening up of the Mainland bond market and growth of the Hong Kong bond market in the long run. Smooth operations since launch and well received by market
- Cross-boundary Wealth Management Connect launched in October 2021. As at end-December 2021, 19 eligible Hong Kong banks successfully commenced services with their Mainland partner banks, laying a solid foundation for steady development of the scheme

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In 2021, Northbound Trading under Bond Connect recorded 292 trades daily on average.
The daily turnover averaged RMB25.8 billion, up around 34% from the 2020 average of
RMB19.3 billion. As of end of December 2021, Bond Connect on-boarded 3,233
registered institutional investors.



PROMOTING GREEN FINANCE (1)

- In December 2021, the Green and Sustainable Finance Cross-Agency Steering Group (CASG) co-chaired by the HKMA and the SFC announced the progress made and the way forward to advance Hong Kong's position as a leader in green and sustainable finance. In particular:
 - ➤ Centre for Green and Sustainable Finance: continue to address the financial industry's capacity and data constraints through developing a common GSF qualification framework, supporting practitioners to take up GSF training, providing young people with practical industry experience, as well as enhancing access to and availability of GSF data and data analytics tools
 - ➤ Taxonomies, climate-related disclosures and sustainability reporting: explore developing a local green classification framework with the aim of aligning with the Common Ground Taxonomy, and continue to work towards mandating, by 2025, disclosure aligned with Task Force on Climate-related Financial Disclosures and to evaluate and potentially adopt the International Financial Reporting Standards Foundation's Sustainability Disclosure Standards
 - Carbon market opportunities: further explore how Hong Kong may develop into a regional carbon trading centre, including the development of a global high-quality voluntary carbon market, based on earlier preliminary assessment of carbon market opportunities in Hong Kong
- 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 Environment Bureau, the Financial Services and the Treasury Bureau, the Hong Kong Exchanges and Clearing Limited, the Insurance Authority and the Mandatory Provident Fund Schemes Authority.



PROMOTING GREEN FINANCE (2)

- The HKMA has so far assisted the Government in successfully issuing over US\$7 billion equivalent institutional green bonds under the Government Green Bond Programme, covering US dollar, euro and renminbi tranches in multiple tenors. The recent issuances in November 2021 included the Government's inaugural issuance of euro and renminbi-denominated bonds, setting important new benchmarks for potential issuers in Hong Kong and in the region, and further consolidating Hong Kong's leading role as an international finance centre and premier offshore renminbi centre. The HKMA will continue to assist the Government in further green bond issuances, including retail green bonds
- The HKMA continued to administer and promote the Green and Sustainable Finance Grant Scheme, which was launched in May 2021 to attract more green and sustainable financing activities to Hong Kong by covering part of the expenses on bond issuances and external review services. The scheme has been well received by the market and has approved over 50 applications across various kinds of green and sustainable debt instruments as at 25 January 2022
- 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

- Crypto-assets particularly payment-related stablecoins present possible risks regarding monetary and financial stability
- On 12 January, the HKMA issued a discussion paper on crypto-assets and stablecoins, setting out the HKMA's thinking on the regulation of payment-related stablecoins and inviting views from the industry and public
- The policy objectives are to safeguard Hong Kong's monetary and financial stability while supporting financial innovation, with a view to complying with the relevant international regulatory recommendations
- The feedback deadline is 31 March 2022



GOVERNMENT BOND PROGRAMME

- Arranged the inaugural issuance of Floating Rate Notes indexed to the Hong Kong Dollar Overnight Index Average (HONIA) to institutional investors in November 2021 to promote the usage of HONIA as an alternative reference rate in Hong Kong
- Retail outstanding as at end-December 2021
 - ➤ Two iBonds, totalling HK\$35 billion
 - ➤ Three Silver Bonds, totalling HK\$47.7 billion
- Institutional outstanding as at end-December 2021
 - ➤ 13 institutional bonds, totalling HK\$85.5 billion
 - ➤ One Islamic bond, totalling US\$1 billion



HONG KONG ACADEMY OF FINANCE (AoF)

- Financial Leaders Programme launched a new leadership development programme in November 2021. The Programme aims to nurture the next generation of top level financial leaders. Programme activities will begin this April, lasting for nine months
- Financial Leadership Development events a number of collaborative events were organised since October 2021
- Research Activities the Hong Kong Institute for Monetary and Financial Research (HKIMR) released a new Applied Research Report in October 2021. The HKIMR also organised or participated in four webinars to disseminate findings of applied and monetary research between September and December 2021. In addition, the HKIMR organised the 11th Annual International Conference on the Chinese Economy, titled "On the Path to Common Prosperity: China's Economic Development in Dual Circulation" on 11 November 2021

<u>Financial Leaders Programme</u>

• The AoF launched a new Financial Leaders Programme in November 2021. The Programme aims to inspire talents with considerable experience in the financial industry, to equip them with a mindset to lead, to enhance their understanding of financial issues from a macro and systemic perspectives, as well as to expand their professional network. The Programme offers a unique opportunity for participants to engage in dialogue with and learn from top leaders in the Government, regulatory authorities, financial institutions and the business sector. The 2022 Programme will commence in April.

Financial Leadership Development

- The Interview Series featuring Prof Edward Chen, Chairman of HKU SPACE, was rolled out in October 2021.
- A webinar "Asset Management Industry: Interaction with Other Financial Services Segments and Opportunities" under the professional training series of the Banking Talent Programme was co-organised with the HKMA on 8 November 2021.
- A panel discussion "Shaping Fintech up for the New Normal" at the Asian Insurance Forum was co-organised with the Insurance Authority on 7 December 2021.
- A seminar "Leveraging on Hong Kong's Competitive Edge as an International Financial Centre" was co-organised with the Civil Service College on 16 December 2021.

Research Activities

- A new Applied Research Report "Artificial Intelligence and Big Data in the Financial Services Industry" was released by the HKIMR in October 2021. The report findings were disseminated in a panel session in the 2021 Hong Kong Fintech Week in November 2021 and a webinar organised by the CFA Institute in December 2021.
- Between September and December 2021, the HKIMR hosted two webinars on topics related to macro and financial economics, with overseas speakers from academia and policy institutions.
- The 11th Annual International Conference on the Chinese Economy titled "On the Path to Common Prosperity: China's Economic Development in Dual Circulation" was held by the HKIMR on 11 November 2021. The conference featured a keynote speech by Mr Long Guoqiang, Vice President of the Development Research Center of the State Council. The conference discussed recent policy issues related to common prosperity, dual circulation, anti-monopoly regulation, property market, and wealth management connect and Guangdong-Hong Kong-Macao Greater Bay Area financial development. It also held in-depth analysis on the impact of population aging, sustainability of social security fund and China's contribution to the global financial stability and world economy. It has over 3,200 people with 5,900 views participated on-site and online.



INVESTMENT ENVIRONMENT AND PERFORMANCE OF THE EXCHANGE FUND

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THE EXCHANGE FUND

Statutory Purposes*

- The primary purpose of the Exchange Fund is to affect the exchange value of the currency of Hong Kong
- Having regard to the primary purpose, may also be used to maintain the stability and integrity of the monetary and financial systems of Hong Kong with a view to maintaining Hong Kong as an international financial centre

Investment Objectives

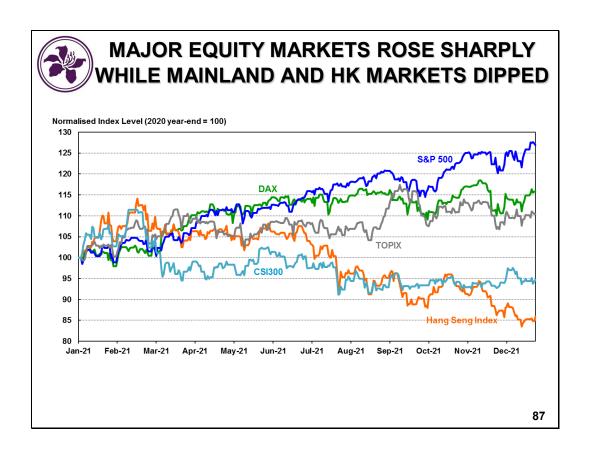
- (1) to preserve capital
- (2) to ensure that the entire
 Monetary Base at all times will
 be fully backed by highly liquid
 US dollar denominated assets
- (3) to ensure sufficient liquidity for the purpose of maintaining monetary and financial stability
- (4) subject to (1) (3), to achieve an investment return that will preserve the long-term purchasing power of the Fund

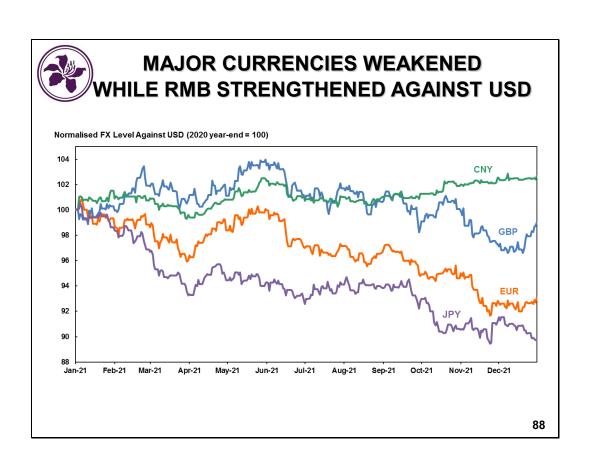
^{*} In accordance with the provisions of The Exchange Fund Ordinance (Cap. 66) (s.3(1)) and (s.3(1A))



INVESTMENT ENVIRONMENT IN 2021

- Interest rates: Affected by heightening inflation pressure and US Federal Reserve's tapering of asset purchases, major sovereign bond yields trended upwards during the year, though remaining at low levels. Bond prices declined overall
- Equity markets: Driven by ultra-loose monetary policies and fiscal measures, recovery of the global economy and financial markets accelerated. Global equity markets rose sharply and hit new record highs. Hong Kong and Mainland equity markets underperformed amid market reforms
- Exchange rates: US dollar strengthened during the year.
 Apart from the renminbi, other major currencies depreciated against the US dollar







INVESTMENT INCOME

	←	2020	2019		
	(u	naudited)		
	Full			Full	Full
(HK\$ billion)	year	2H	1H	year	year
Bonds	12.4	11.1	1.3	92.7	114.5
Hong Kong equities*	(21.0)	(33.5)	12.5	4.0	22.1
Other equities	68.4	22.0	46.4	69.9	100.7
Foreign exchange#	16.8	14.0	2.8	9.6	(13.0)
Other investments@	93.9	17.2	76.7	59.6	37.9
Investment income	170.5	30.8	139.7	235.8	262.2

- * 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 represents valuation changes up to the end of September 2021. Valuations of these investments from October to December are not yet available.

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INCOME AND EXPENDITURE

	l ← (u	–2021 – naudited	 l	2020	2019
(HK\$ billion)	Full year	2H	1H	Full year	Full year
Investment income	170.5	30.8	139.7	235.8	262.2
Other income	0.2	0.1	0.1	0.2	0.2
Interest and other expenses	_(6.1)	_(2.8)	(3.3)	(14.6)	(24.8)
Net income	164.6	28.1	136.5	221.4	237.6
Fee payment to Fiscal Reserves*#	(34.4)	(16.4)	(18.0)	(69.8)	(53.8)
Fee payment to HKSAR government funds and statutory bodies*	(16.8)	(8.9)	(7.9)	(11.5)	(9.0)

- * The rate of fee payment is 4.7% for 2021, 3.7% for 2020 and 2.9% for 2019.
- # This does not include the 2021 fee payment to the Future Fund because such amount will only be disclosed when the composite rate for 2021 is available.

when the composite rate for 2021 is available. (The composite rate was 12.3% for 2020 and 8.7% for 2019. Fee payable to the Future Fund was HK\$37.2 billion for 2020 and HK\$24.4 billion for 2019.)



EXCHANGE FUND ABRIDGED BALANCE SHEET

(HK\$ billion)	At 31 Dec 2021	At 31 Dec 2020	Change	
ASSETS	(unaudited)			
Deposits	299.6	267.0	32.6	
Debt securities	3,291.2	3,238.0	53.2	
Hong Kong equities*	183.2	206.9	(23.7)	
Other equities	559.3	536.3	23.0	
Other assets#	244.5	251.0	(6.5)	
Total assets	4,577.8 =====	4,499.2 =====	78.6 =====	
LIABILITIES AND EQUITY				
Certificates of Indebtedness	592.4	556.2	36.2	
Government-issued currency notes & coins in circulation	13.1	12.8	0.3	
Balance of the banking system	377.5	457.5	(80.0)	
Exchange Fund Bills and Notes issued	1,148.6	1,068.9	79.7	
Placements by banks and other financial institutions	-	87.6	(87.6)	
Placements by Fiscal Reserves@	973.3	881.8	91.5	
Placements by HKSAR government funds and statutory bodies	394.2	342.5	51.7	
Placements by subsidiaries	21.6	15.5	6.1	
Other liabilities	268.2	233.1	35.1	
Total liabilities	3,788.9	3,655.9	133.0	
Accumulated surplus	788.0	842.4	(54.4)	
Revaluation reserve	0.9	0.9		
Total equity	788.9	843.3	(54.4)	
Total liabilities and equity	4,577.8	4,499.2 =====	78.6 =====	

- 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\$190.1 billion at 31 December 2021 (HK\$193.2 billion at 31 December 2020).

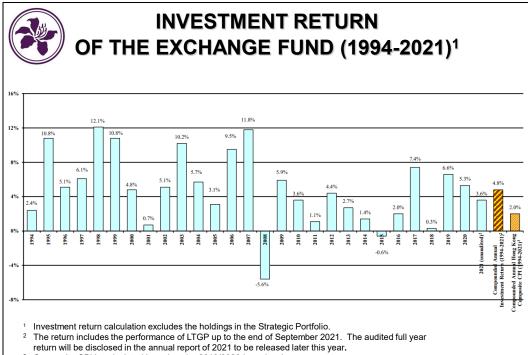
 Including placements by the Future Fund of HK\$217.7 billion (HK\$205.0 billion at 31 December 2020).



HISTORICAL INVESTMENT INCOME

(HK\$ billion)					
Year	Full Year	Q4	Q3	Q2	Q1
2002	47.0	26.3	(2.1)	26.5	(3.7)
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*# (unaudited)	170.5	26.8	4.0	88.4	51.3

- ${\bf Excluding \, valuation \, changes \, of \, the \, \, Strategic \, Portfolio.}$
- Including valuation changes of private equity and real estate investments held under the LTGP.



- ³ Composite CPI is calculated based on the 2019/2020-based series.

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HONG KONG MORTGAGE CORPORATION



MORTGAGE INSURANCE PROGRAMME (MIP)

- In 2021, around 58,800 applications have been approved, of which over 45,700 are under the new coverage after the MIP revisions in October 2019. Over 90% of approved applications are from first-time homebuyers
- Principal moratorium or extension of repayment schedules is available to borrowers to help reduce their repayment burden

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REVERSE MORTGAGE PROGRAMME

- As of 31 December 2021, 5,209 applications had been received:
 - Average age of borrowers: 68 years old
 - Average monthly payout: HK\$16,800
 - Payment terms: 10-year (22.9%);15-year (14.7%); 20-year (12.6%); life (49.7%)
 - Average property value: HK\$5.7 million
 - Average property age: 30 years



SME FINANCING GUARANTEE SCHEME (SFGS)

- Special 100% Loan Guarantee:
 - ➤ As of 31 December 2021, over 47,000 applications were approved, amounting to about HK\$81.6 billion. Around 31,000 applications have chosen the principal moratorium option
- 80% and 90% Guarantee Products:
 - As of 31 December 2021, over 26,900 applications were approved, amounting to about HK\$103.1 billion. Around 1,900 applications have chosen the principal moratorium option
- The application period for the SFGS products and principal moratorium has been extended to end-June 2022

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100% PERSONAL LOAN GUARANTEE SCHEME

- As of 31 December 2021, around 35,800 applications were approved, amounting to about HK\$2.5 billion. Average loan size was about HK\$69,400
- The application period has been extended to end-April 2022



HKMC ANNUITY PLAN

- Total premium received in 2021 grew by 18% over 2020 to HK\$3 billion
- Detailed business results:

	2020	2021	Since launch
No. of policies issued	2,606	4,059	14,275
Total premium amount (HK\$ billion)	2.5	3.0	10.0
Average premium amount (HK\$)	970,000	740,000	700,000