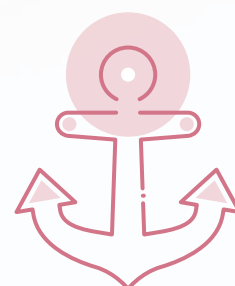


# Monetary Stability

Amid tightening of the US monetary policy, the Hong Kong dollar softened in 2022, with the weak-side Convertibility Undertaking triggered 41 times between May and November. The Hong Kong dollar began regaining momentum in mid-November, thanks to stronger local equity market activities and seasonal year-end funding demand. Under the Linked Exchange Rate System, the Hong Kong Interbank Offered Rates generally track their US dollar counterparts. As the US continued to raise interest rates, the Hong Kong Interbank Offered Rates gradually rose during 2022. Overall, the Hong Kong dollar exchange and money markets remained stable and traded in a smooth and orderly manner. As the cornerstone of Hong Kong's monetary and financial stability, the Linked Exchange Rate System has shown its strength and resilience to various external shocks time and again.



## Monetary Stability

### Objectives

The overriding objective of Hong Kong's monetary policy is currency stability. This is defined as a stable external exchange value of Hong Kong's currency, in terms of its exchange rate in the foreign exchange market against the US dollar, within a band of HK\$7.75–7.85 to US\$1. The structure of the monetary system is characterised by Currency Board arrangements, requiring the Monetary Base to be at least 100% backed by US dollar reserves held in the Exchange Fund, and changes in the Monetary Base to be 100% matched by corresponding changes in US dollar reserves.

The Monetary Base (Table 1) comprises:

- Certificates of Indebtedness, which provide full backing to the banknotes issued by the three note-issuing banks;
- Government-issued currency notes and coins in circulation;
- The Aggregate Balance, which is the sum of clearing account balances kept with the HKMA; and
- Exchange Fund Bills and Notes (EFBNs) issued by the HKMA on behalf of the Government.

**Table 1** Monetary Base

| HK\$ million   | 31 December<br>2022 | 31 December<br>2021 |
|--|---------------------|---------------------|
| Certificates of Indebtedness <sup>a</sup>                              | 605,575             | 592,645             |
| Government-issued currency notes and coins in circulation <sup>a</sup> | 13,151              | 13,132              |
| Balance of the banking system <sup>b</sup>                             | 96,251              | 377,516             |
| EFBNs issued <sup>c</sup>  | 1,200,422           | 1,148,769           |
| <b>TOTAL</b>   | <b>1,915,399</b>    | <b>2,132,062</b>    |

- a. The Certificates of Indebtedness and the Government-issued currency notes and coins in circulation shown here are stated at Hong Kong dollar face values. The corresponding items shown in the balance sheet of the Exchange Fund in this *Annual Report* are in Hong Kong dollars equivalent to the US dollar amounts required for their redemption at the prevailing exchange rates on the reporting date. This arrangement is in accordance with the accounting principles generally accepted in Hong Kong.
- b. Balance of the banking system shown here is the carrying value before the amount advanced to the banks under the Discount Window Operations. In accordance with the accounting principles generally accepted in Hong Kong, the corresponding item shown in the balance sheet of the Exchange Fund in this *Annual Report* includes the amount of these advances.
- c. The amount of EFBNs shown here refers to their fair value. In accordance with the accounting principles generally accepted in Hong Kong, the EFBNs held by the HKMA on behalf of the Exchange Fund in relation to its trading of the EFBNs in the secondary market are offset against the EFBNs issued, and the net amount is recorded in the balance sheet. The EFBNs allotted on tender dates but not yet settled are included in the balance sheet but are excluded from the Monetary Base. Therefore, the amount of EFBNs shown here is different from that in the balance sheet of the Exchange Fund in this *Annual Report*.

The stability of the Hong Kong dollar exchange rate is maintained through an automatic interest rate adjustment mechanism and the firm commitment by the HKMA to honour the Convertibility Undertakings (CUs). With the HKMA standing ready to sell (or buy) Hong Kong dollars to (or from) banks in exchange for US dollars upon request at

HK\$7.75 (or HK\$7.85) per US dollar, when the strong-side (or weak-side) CU is triggered, the Aggregate Balance will expand (or contract) to push down (or up) Hong Kong dollar interest rates, helping move the Hong Kong dollar back to within the Convertibility Zone of 7.75 to 7.85.

# Monetary Stability

## Review of 2022

### Exchange rate stability

Driven by the correction of the local stock market, market expectation of further US interest rate hikes and carry trades amid the negative HIBOR-LIBOR<sup>1</sup> spread, the Hong Kong dollar softened in early 2022 and stayed close to the weak-side CU in the following months. The weak-side CU was triggered 41 times between May and November. The Hong Kong dollar began regaining momentum in mid-November amid stronger local equity market activities and seasonal year-end funding demand (Chart 1). Overall, the Hong Kong dollar exchange market continued to function normally throughout 2022.

**HK\$1,296.7 billion**

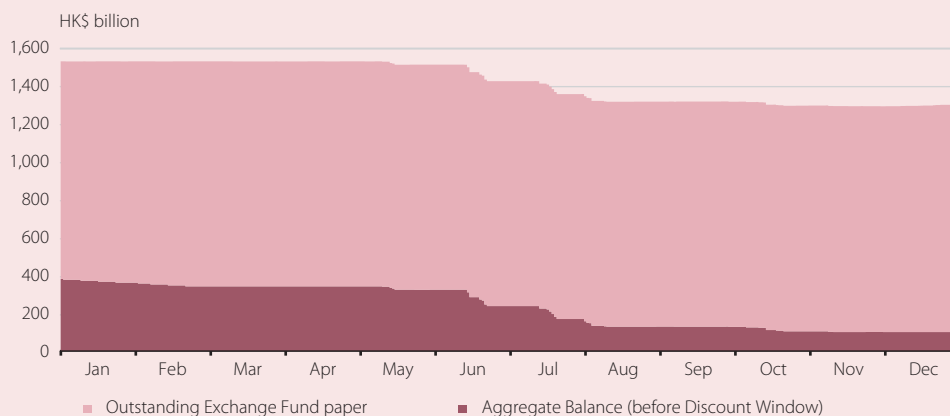
Total Aggregate Balance and outstanding EFBNs

In early 2022, the HKMA issued a total of HK\$40 billion additional Exchange Fund Bills to meet the ongoing demand for Exchange Fund paper by banks. Also, from May to November 2022, the HKMA purchased a total of HK\$242.1 billion at the weak-side CU at the request of banks in accordance with the design of the Linked Exchange Rate System (LERS). Reflecting the increased issuance of Exchange Fund Bills and the triggering of the weak-side CU, the Aggregate Balance decreased from HK\$377.5 billion at the end of 2021 to HK\$96.3 billion at the end of 2022. Meanwhile, the outstanding EFBNs increased slightly from HK\$1,148.8 billion to HK\$1,200.4 billion during the year. The total of the Aggregate Balance and outstanding EFBNs therefore declined from HK\$1,526.3 billion at the end of 2021 to HK\$1,296.7 billion at the end of 2022 (Chart 2). The Monetary Base as a whole remained fully backed by foreign exchange reserves.

**Chart 1** Market exchange rate in 2022



**Chart 2** Aggregate Balance (before Discount Window) and outstanding Exchange Fund papers in 2022



<sup>1</sup> HIBOR and LIBOR stand for Hong Kong Interbank Offered Rate and London Interbank Offered Rate respectively.

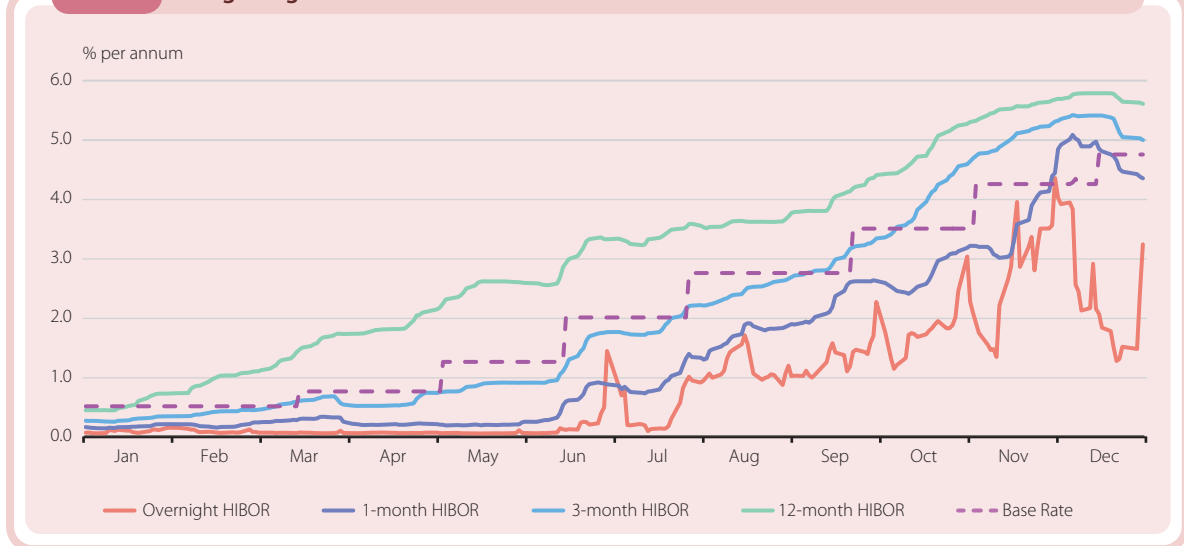
## Monetary Stability

### Money market

Under the LERS, the HIBORs generally track their US dollar counterparts. As the US continued to raise interest rates during 2022, the HIBORs gradually rose (Chart 3). For the year as a whole, the overnight, 1-month and 3-month HIBORs increased by 318, 419 and 473 basis points to 3.23%, 4.35% and 4.99% respectively at year end.

Following the increases in the target range for the US federal funds rate, the Base Rate was adjusted upwards seven times by a total of 4.25 percentage points (i.e. 425 basis points) from 0.5% to 4.75% (Chart 3).<sup>2</sup> On the retail front, following the US policy rate hikes, many banks raised their Best Lending Rates by 12.5 basis points in late September, 25 basis points in early November and another 25 basis points in mid-December. Some banks also increased the cap on HIBOR-based mortgage rates of newly approved mortgage loans during the year. Overall, Hong Kong's money markets continued to function normally. Discount Window borrowing increased to HK\$8.4 billion in 2022 from HK\$6.8 billion in 2021.

**Chart 3** Hong Kong Interbank Offered Rates in 2022



<sup>2</sup> The adjustments of the Base Rate were in accordance with the established formula, which sets the Base Rate at either 50 basis points above the lower bound of the prevailing target range for the US federal funds rate or the average of the five-day moving averages of the overnight and one-month HIBORs, whichever is the higher.

## Monetary Stability

### The Linked Exchange Rate System



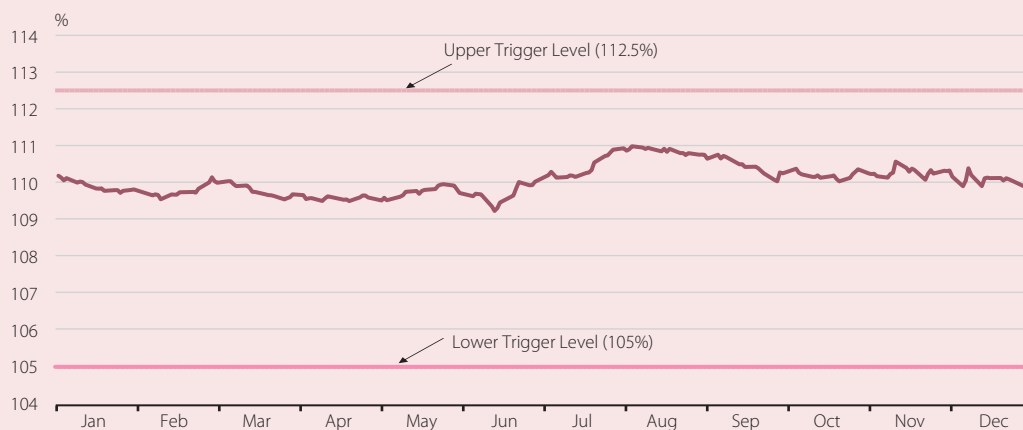
The LERS has been a strong anchor of Hong Kong's financial system for nearly four decades and has shown its strength and resilience to challenges. Despite volatile global financial conditions during 2022, the Hong Kong dollar exchange

and money markets continued to function in an orderly manner, reflecting the robustness of the LERS. The Government is firmly committed to the LERS. In its 2022 *External Sector Report*, the International Monetary Fund once again reiterated that the credibility of the LERS has been ensured by a transparent set of rules, large fiscal and foreign reserves, strong financial regulation and supervision, a flexible economy and a prudent fiscal framework.

A robust banking system is crucial to the normal functioning of the LERS. Hong Kong's banking sector continued to operate smoothly, with liquidity positions and capitalisation faring very well by international standards. To ensure resilience of the banking sector, the HKMA has been closely monitoring banks' management of credit, liquidity and interest rate risks and stress-test results, and has maintained its supervisory efforts on bank lending.

To improve transparency of the Currency Board Account, a specific portion of the Exchange Fund assets has been allocated to back the Monetary Base since October 1998. The Backing Ratio (defined as the Backing Assets divided by the Monetary Base) moved within a range of 109.3–111.0% during 2022, without touching the Upper or Lower Trigger Level. The ratio closed at 110.1% on 31 December (Chart 4). Under the LERS, while specific Exchange Fund assets have been designated for the Backing Portfolio, all Exchange Fund assets are available to support the Hong Kong dollar exchange rate. The ample financial resources of the Exchange Fund, together with the sound banking system, provide a powerful backstop to Hong Kong's monetary and financial stability.

**Chart 4** Daily movement of the Backing Ratio in 2022



## Monetary Stability

### Currency Board Sub-Committee

The Currency Board Sub-Committee (CBC) of the Exchange Fund Advisory Committee monitors and reviews issues relevant to monetary and financial stability in Hong Kong. In 2022, the CBC considered issues including property market conditions in the Mainland, the role of non-bank institutions in the residential mortgage market, the application of deep learning to assess credit risk, and a monitoring framework for assessing Hong Kong dollar liquidity. Records of the CBC's discussions on these issues and reports on Currency Board operations submitted to the CBC are published on the HKMA website.



### Notes and coins

The below table summarises the value of the notes and coins in circulation at the end of 2022:



**Total value of banknotes issued by note-issuing banks**  
(Charts 5, 6 and 7)

**HK\$605.6 billion**

up 2.2% year on year



**Total value of notes and coins issued by Government**  
(Charts 8 and 9)

**HK\$12.9 billion**

up 0.1% year on year

Of which:  
– Total value of HK\$10 notes

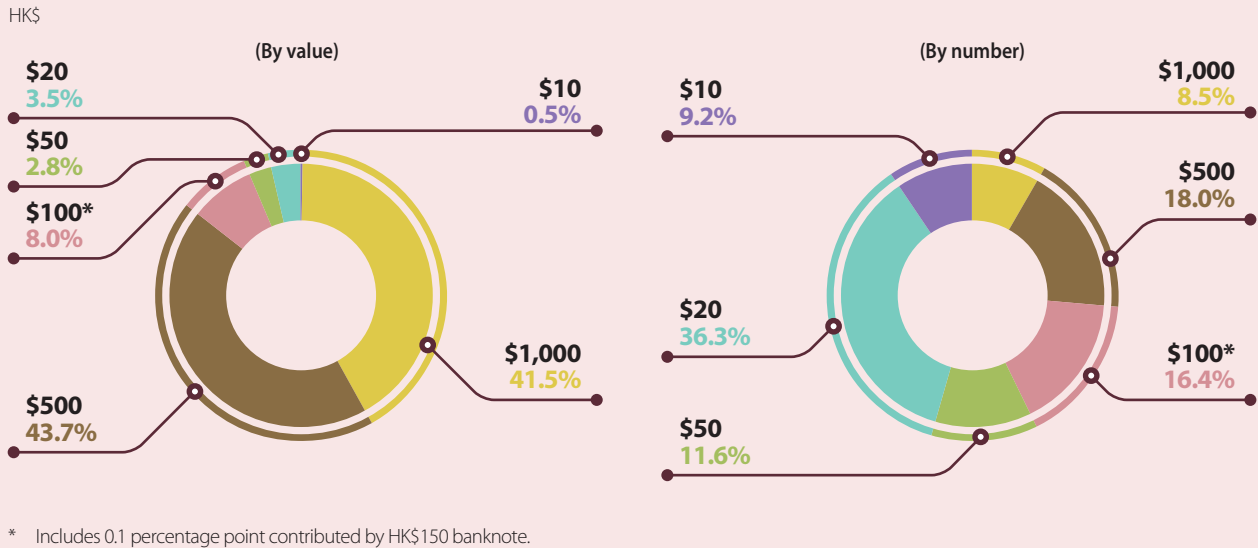
**HK\$4.8 billion**  
(81% were polymer notes)

**Chart 5** Banknotes in circulation by note-issuing banks at the end of 2022

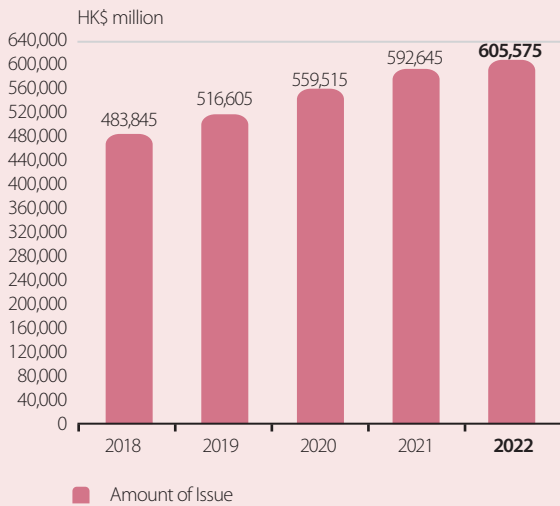


# Monetary Stability

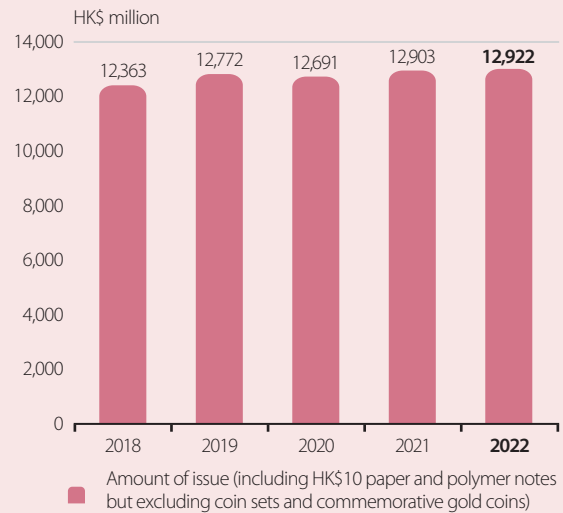
**Chart 6** Distribution of banknotes in circulation at the end of 2022



**Chart 7** Banknotes in circulation at the end of 2022

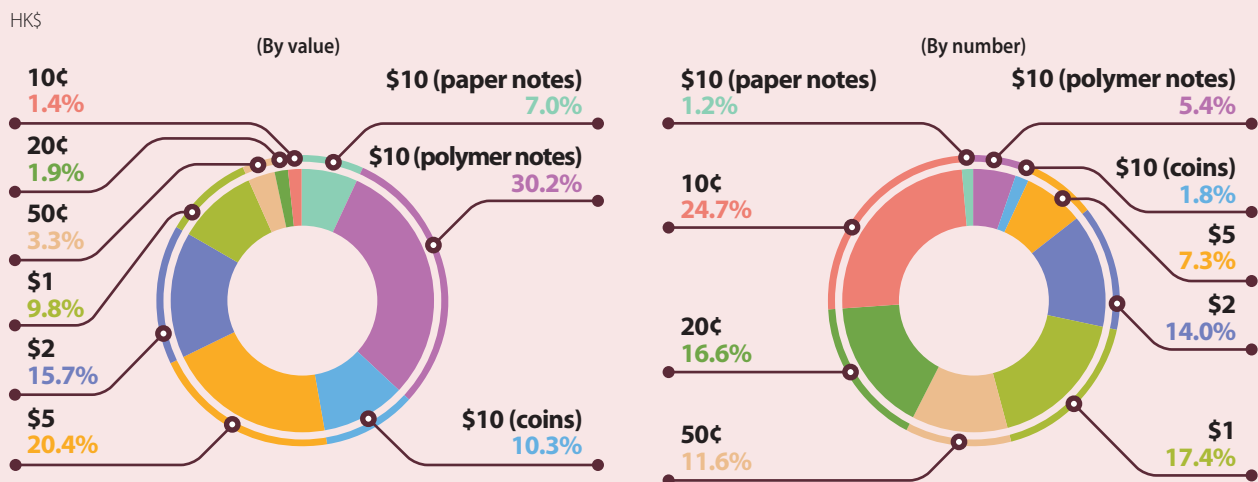


**Chart 8** Government-issued currency notes and coins in circulation at the end of 2022



## Monetary Stability

**Chart 9** Breakdown of Government-issued currency notes and coins in circulation at the end of 2022



### Hong Kong banknotes

The HKMA continued to provide seminars on the design and security features of Hong Kong banknotes for bank tellers, cashiers from retail establishments and students to help enhance their knowledge and skills in authenticating banknotes. During 2022, 15 seminars were arranged for over 4,200 participants.

### Coin Collection Programme

The Coin Collection Programme continued to be well received by the public. More information about the Programme can be found in the *Sustainable HKMA* chapter of the *Sustainability Report 2022*.

### Exchange Fund Bills and Notes

The EFBN Programme continued to operate smoothly. To meet the ongoing demand for Exchange Fund paper by banks and having regard to market conditions, the HKMA issued a total of HK\$40 billion additional Exchange Fund Bills in the first two months of 2022, which resulted in a corresponding reduction of the Aggregate Balance. At the end of 2022, the nominal amount of outstanding Exchange Fund papers stood at around HK\$1,207.5 billion (Table 2).

**Table 2** Outstanding issues of EFBNs

| HK\$ million  | 2022             | 2021             |
|---|------------------|------------------|
| <b>Exchange Fund Bills<br/>(by original maturity)</b> |                  |                  |
| 28 days   | 0                | 800              |
| 91 days   | 769,798          | 710,917          |
| 182 days  | 364,800          | 361,800          |
| 364 days  | 51,700           | 51,700           |
| <b>Subtotal</b>                                       | <b>1,186,298</b> | <b>1,125,217</b> |
| <b>Exchange Fund Notes<br/>(by remaining tenor)</b>   |                  |                  |
| 1 year or less  | 7,600            | 7,000            |
| More than 1 year and up to 3 years                    | 8,800            | 10,400           |
| More than 3 years and up to 5 years                   | 2,400            | 2,400            |
| More than 5 years and up to 10 years                  | 2,400            | 3,600            |
| <b>Subtotal</b>                                       | <b>21,200</b>    | <b>23,400</b>    |
| <b>Total</b>  | <b>1,207,498</b> | <b>1,148,617</b> |



# Monetary Stability

## Monetary research

The Hong Kong Institute for Monetary and Financial Research (HKIMR)<sup>3</sup> completed three commissioned policy studies, released 24 working papers, and held 16 seminars/webinars on monetary and financial research topics that are of strategic importance to Hong Kong and the region. The HKIMR also made further efforts in disseminating the research findings to a wider audience through a new open-access electronic journal. Moreover, a new publication series called *Insights from Monetary Research Digest* was launched on the HKIMR's website to provide the public with a high-level non-technical summary of the Institute's recent research outputs.

Apart from its research output, the HKIMR organised two international conferences and three expert webinars to promote dialogue and exchange on economic and financial issues:

- A webinar featuring Mr Joseph Yam, former Chief Executive of the HKMA, and Professor Huang Yiping, Sinar Mas Chair Professor of Finance and Economics and Deputy Dean of the National School of Development of Peking University, on *Macroeconomic Developments, Fed Tightening and Offshore RMB Market Development*, was co-organised with the Hong Kong Academy of Finance (AoF) on 12 April. It attracted 840,000 real-time online views via various broadcasting platforms.
- A webinar, titled *China's Property Sector — Transformation and Policy Choices*, was held on 24 June, featuring Ms Qin Hong, Senior Research Fellow of Renmin University of China and former Director of the Policy Research Center of the Ministry of Housing and Urban-Rural Development, and moderated by Dr Wang Tao, Head of Asia Economic Research and Chief China Economist of UBS. It attracted close to 1.13 million real-time online views from Mainland China, Hong Kong and the rest of the world.



<sup>3</sup> The HKIMR is a subsidiary of the Hong Kong Academy of Finance.

## Monetary Stability

- A virtual workshop co-organised with the Asian Development Bank and the Bank for International Settlements on *Monetary Policy Spillovers* was held on 25 August. More than 200 participants from global central banks, international financial institutions and academia attended the workshop online.
- As a side event of the *Global Financial Leaders' Investment Summit*, a webinar, titled *Inflation in the Aftermath of COVID-19: Was It Inevitable or Avoidable?*, featuring Dr John Greenwood, Founder and Chief Economist of International Monetary Monitor Ltd and former Chief Economist of Invesco, was co-hosted with the AoF on 2 November. Almost 200 economists attended the webinar online.
- The 12th Annual International Conference on the Chinese Economy, titled *The Next Phase of China's Economic Development*, was held on 23 November, featuring a keynote speech on the short-term outlook and long-term prospect of the Chinese economy by Dr Wang Yiming, Vice Chairman of China Center for International Economic Exchanges and Chairman of its Academic Committee, and a panel discussion by four leading chief China economists on China's COVID policy, property market development, supply chain reshuffle and longer-term growth prospects. It attracted more than 1.18 million real-time online views.

