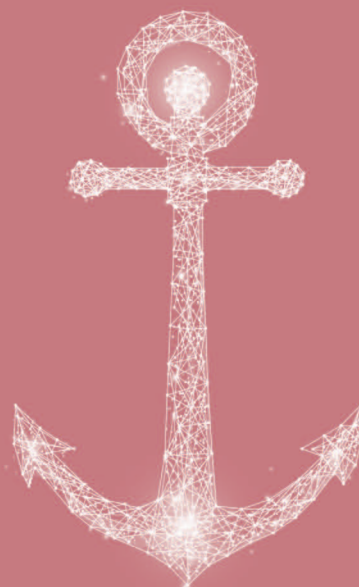


Monetary Stability

Notwithstanding the heightened uncertainty created by the COVID-19 pandemic, the Hong Kong dollar foreign exchange and money markets traded in a smooth and orderly manner. Underpinned by strong equity-related inflows, the Hong Kong dollar firmed throughout most of 2020, with repeated triggering of the strong-side Convertibility Undertaking. As the cornerstone of Hong Kong's financial system, the Linked Exchange Rate System has shown its strength and resilience to shocks.



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
- ◆ Exchange Fund Bills and Notes (EFBNs) issued by the HKMA on behalf of the Government.

Table 1 Monetary Base

HK\$ million	31 December 2020	31 December 2019
Certificates of Indebtedness ¹	559,515	516,605
Government-issued currency notes and coins in circulation ¹	12,920	13,001
Balance of the banking system ²	457,466	54,288
EFBNs issued ³	1,069,180	1,078,748
TOTAL	2,099,081	1,662,642

1. 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.
2. 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.
3. 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 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 7.75

(or 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 that would help move the Hong Kong dollar back to within the Convertibility Zone of 7.75 to 7.85.

Monetary Stability

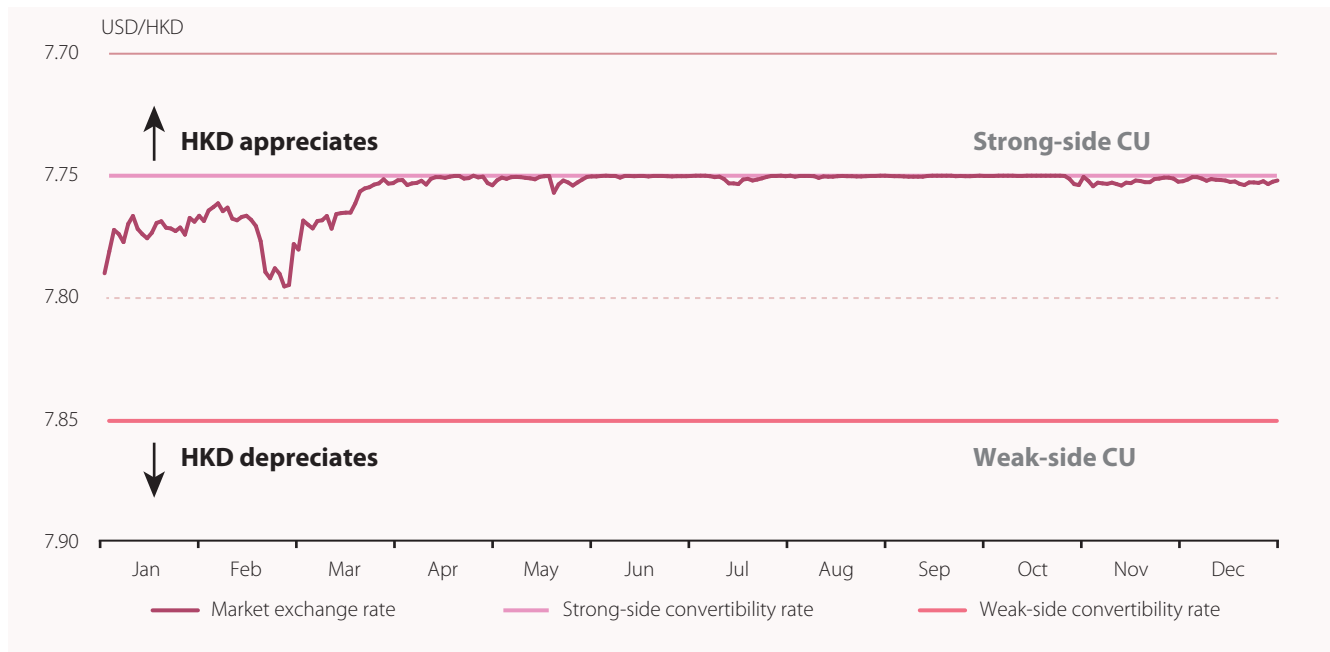
REVIEW OF 2020

Exchange rate stability

Amid the global COVID-19 outbreak in March, global investors sought more US dollars under risk-off sentiment, leading to a notable tightening in US dollar funding conditions. Under the Linked Exchange Rate System (LERS), as Hong Kong dollar interest rates are influenced by their US dollar counterparts, the strain in US dollar liquidity led to a tightening of the monetary conditions in Hong Kong. While US dollar funding pressure subsequently eased along with the implementation of the US Federal Reserve's liquidity programmes, Hong Kong's monetary conditions remained tight due to equity-related demand and the quarter-end effect. The strong

demand for Hong Kong dollars, together with carry trade activities spurred by the positive Hong Kong dollar-US dollar interest rate spreads, led to the strengthening of the Hong Kong dollar exchange rate towards the strong-side CU (Chart 1). The strong-side CU was eventually triggered in April. Thereafter, equity-related inflows stemming from vibrant initial public offering (IPO) activities and the southbound Stock Connects kept the Hong Kong dollar close to the 7.75 level and led to a series of triggering of the strong-side CU throughout 2020. In total, the strong-side CU was triggered 85 times between 21 April and 28 October, with aggregate inflows of HK\$383.5 billion. Overall, the Hong Kong dollar foreign exchange market functioned normally throughout 2020.

Chart 1 Market exchange rate in 2020



Monetary Stability

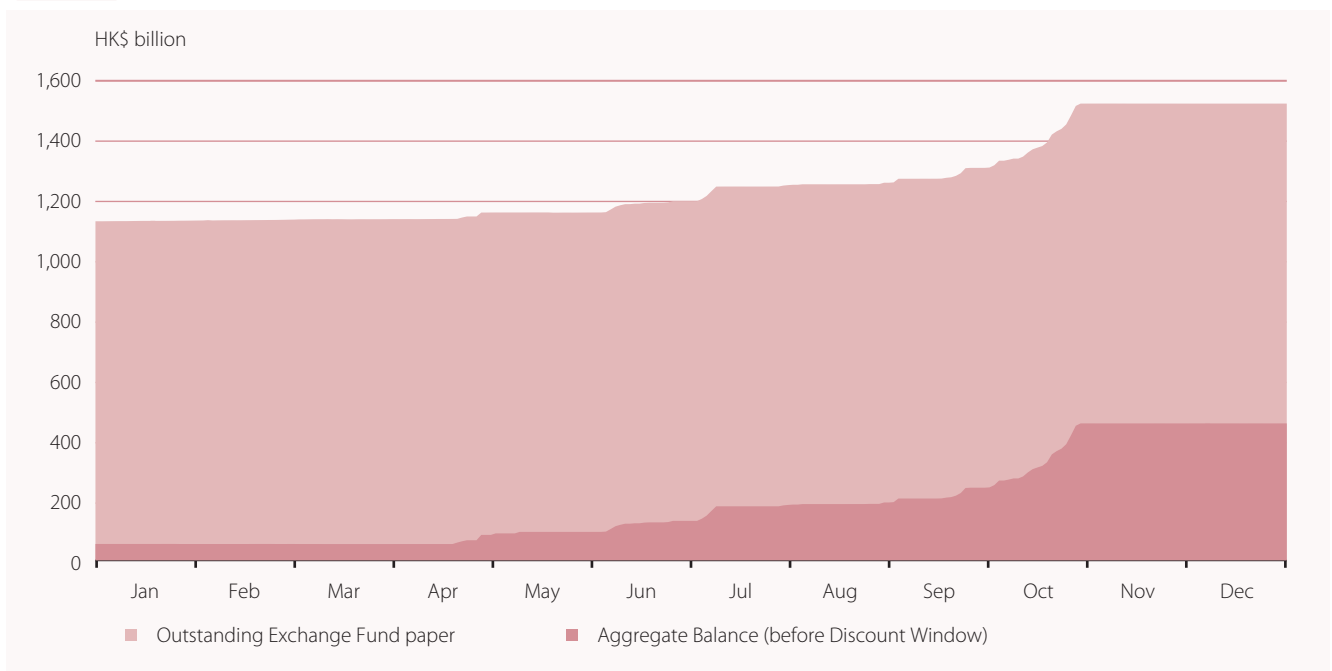
The sum of the Aggregate Balance (before Discount Window) and outstanding EFBNs increased from HK\$1,133.0 billion at the end of 2019 to HK\$1,526.6 billion at the end of 2020 (Chart 2). Following the triggering of the strong-side CU, the HKMA sold a total of HK\$383.5 billion at the request of banks. To provide additional Hong Kong dollar liquidity amid a volatile global macro environment due to the COVID-19 pandemic, the HKMA also gradually reduced the issuance of Exchange Fund Bills in late April and early May by a total of HK\$20 billion¹. Taking into account the triggering

of the strong-side CU and the reduced issuance of Exchange Fund Bills, the Aggregate Balance (before Discount Window) expanded from HK\$54.3 billion at the end of 2019 to HK\$457.5 billion at the end of 2020. The outstanding EFBNs decreased slightly from HK\$1,078.7 billion to HK\$1,069.2 billion during the year, reflecting the reduced issuance of Exchange Fund Bills, which more than offset the issuance of EFBNs to absorb EFBNs' interest payments according to the established practice. The Monetary Base as a whole remained fully backed by foreign exchange reserves.



Total Aggregate Balance (before Discount Window) and outstanding Exchange Fund Bills and Notes at **HK\$1,526.6 billion** at end-2020.

Chart 2 Aggregate Balance (before Discount Window) and outstanding Exchange Fund papers in 2020



¹ To help ensure continued smooth operation of the Hong Kong dollar interbank market amid a volatile global macro environment stemming from the COVID-19 pandemic, the HKMA made available more Hong Kong dollar liquidity in the banking system by reducing the issue size of 91-day Exchange Fund Bills by HK\$5 billion in each of the four regular tenders on 21 April, 28 April, 5 May and 12 May 2020. The issuance of the Bills was reduced by HK\$20 billion in total and the Aggregate Balance increased by the same amount. The reduced issuance of Exchange Fund Bills simply represents a change in the component of the Monetary Base, with a shift from the Exchange Fund Paper to the Aggregate Balance. As the Monetary Base remains fully backed by US dollars, such operations are consistent with the Currency Board principles.

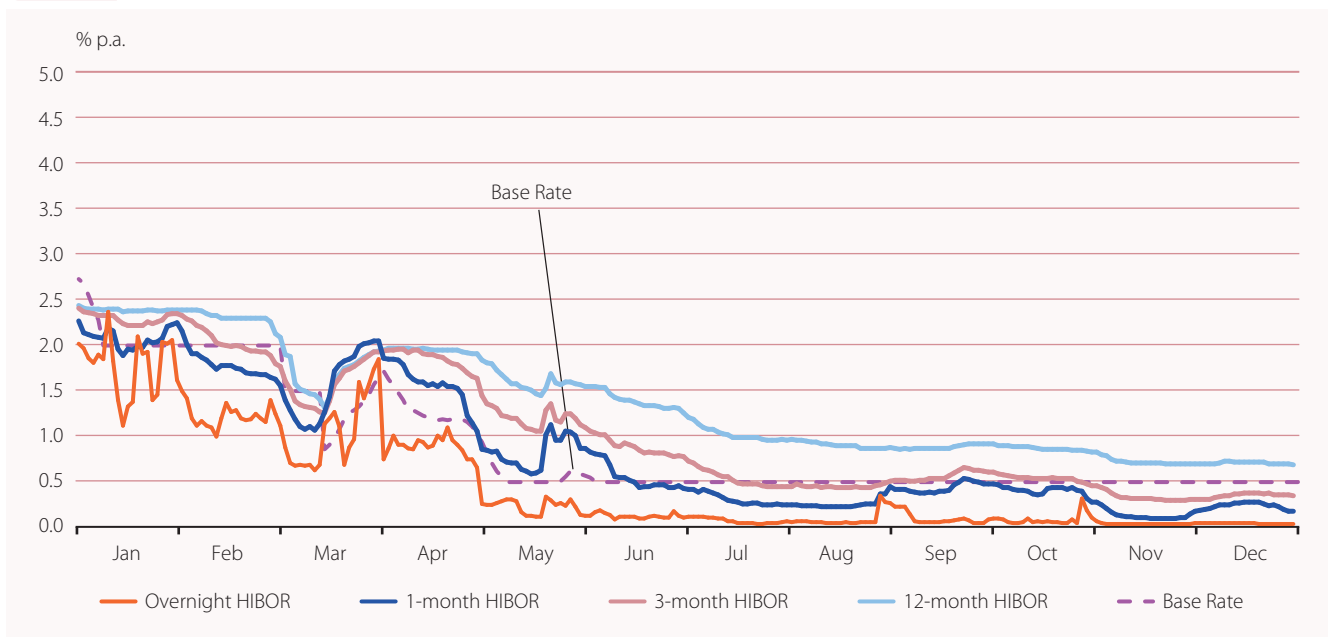
Monetary Stability

Money market

The Hong Kong dollar interbank interest rates generally softened in February as liquidity demand receded after the Chinese New Year holiday (Chart 3). Stepping into March, the Hong Kong dollar interbank interest rates were once elevated amid the US dollar funding stress and local factors such as IPO-related and quarter-end funding demand. Thereafter, Hong Kong dollar liquidity conditions gradually eased along with the expansion of the Aggregate Balance due to the triggering of the strong-side CU and reduced issuance of Exchange Fund Bills.

Reflecting two downward shifts in the target range for the US federal funds rate in March and the movements in overnight and one-month Hong Kong Interbank Offered Rates (HIBORs) during the year, the Base Rate decreased from 2.73% at the beginning of the year to close at 0.50%². On the retail front, banks kept their Best Lending Rates unchanged despite the lower target range for the US federal funds rate. Overall, Hong Kong's money markets continued to function normally. Discount Window borrowing decreased to HK\$9.1 billion in 2020 from HK\$38.3 billion in 2019.

Chart 3 Hong Kong dollar interbank interest rates in 2020



² The adjustment of the Base Rate was in accordance with the revised formula announced on 26 March 2009, 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 higher.

Monetary Stability

The Linked Exchange Rate System



The LERS has been the cornerstone of Hong Kong's financial system for more than three decades and has shown its strength and resilience to shocks. Despite the challenges of

2020, the normal functioning of the Hong Kong dollar foreign exchange and money markets once again proved the robustness of the LERS. In the face of unfounded rumours casting doubt on the LERS and financial stability of Hong Kong during the year, the HKMA acted swiftly to reassure the public that the LERS would remain in place and the free flow of capital and free convertibility of the Hong Kong dollar is safeguarded by Article 112 of the Basic Law. The HKMA also published a number of articles providing facts that Hong Kong's financial system continued to display strong resilience against adversity. The Government is also firmly committed to the LERS. These efforts were effective in maintaining public confidence in the LERS, as evidenced by the orderly functioning of the markets and continued use of the Hong Kong dollar as a means of payment and storage of value. The International Monetary Fund in its *External Sector Report 2020* reiterates that the credibility of the LERS is assured by the transparent set of rules, ample fiscal and foreign reserves, strong financial regulation and supervision, a flexible economy, and a prudent fiscal framework.

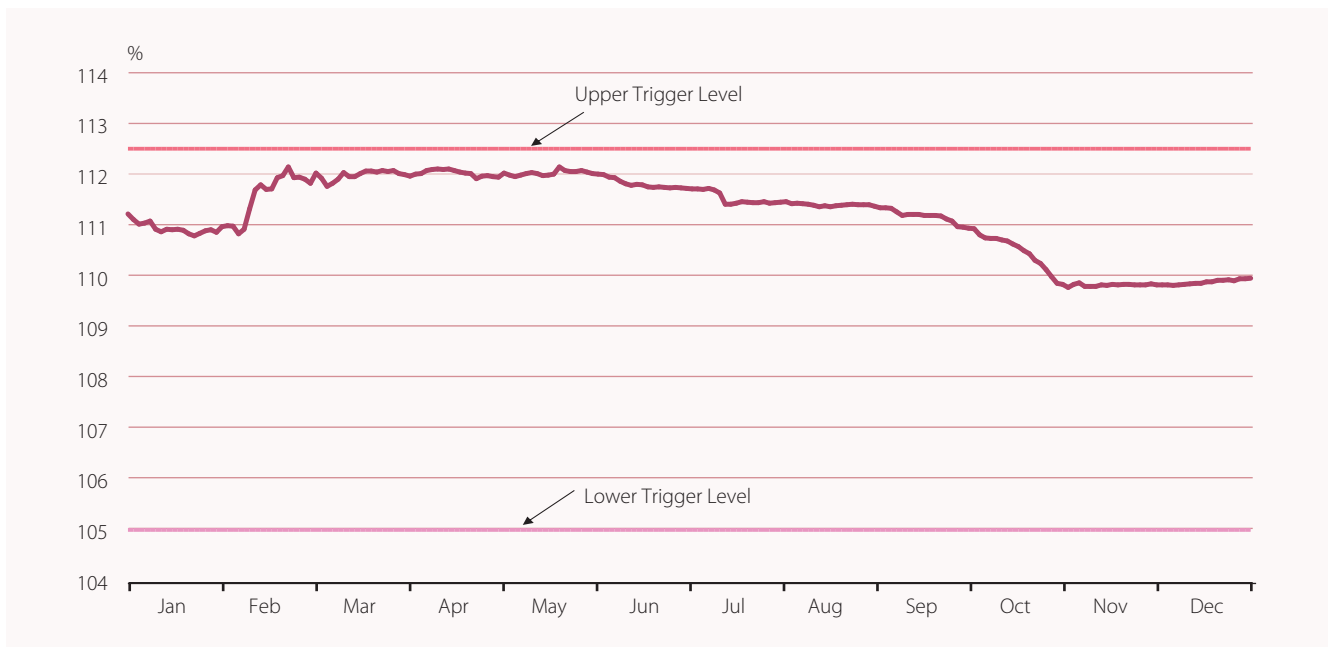
A robust banking system is crucial to the normal functioning of the LERS. Despite the negative impact of the COVID-19 pandemic, Hong Kong's banking sector continued to operate smoothly with liquidity positions and capitalisation faring very well by international standards. To ensure the resilience of 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. Meanwhile, the HKMA also made available more liquidity to the banking system to safeguard monetary and financial stability. Apart from reducing issuance size of Exchange Fund Bills to increase Hong Kong dollar liquidity, the HKMA has a range of liquidity facilities in place for banks. Furthermore, the HKMA communicates with banks to ensure that banks make use of these liquidity facilities in times of stress. Amid considerable volatilities and uncertainties in the global financial markets brought about by COVID-19, the HKMA introduced a temporary US Dollar Liquidity Facility to make available US dollar liquidity assistance for licensed banks and help alleviate tightness in the global US dollar interbank money markets.

Monetary Stability

To improve the transparency of the Currency Board Account, a specific portion of 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 109.8–112.1% during 2020, without touching the Upper or Lower Trigger Level. The

ratio closed at 109.9% 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 2020



Monetary Stability

Other activities

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 2020, the CBC considered issues including a scenario analysis of the Hong Kong economy, assessment of the Hong Kong property market, a conceptual framework for understanding cross-border fund flows, and understanding Hong Kong's interbank market. 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.

Monetary research

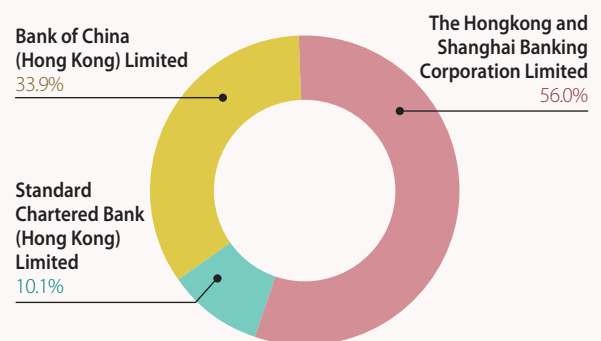
The Hong Kong Institute for Monetary and Financial Research (HKIMR) maintained steady research output in 2020 despite the ongoing pandemic. In 2020, the HKIMR released 20 Working Papers that covered a wide range of topics including monetary policy, banking stability, market microstructure and fintech development. Several of them have been accepted or under review for publication in professional journals. With social distancing and travel restrictions in place due to the pandemic, major events organised by the HKIMR such as conferences, seminars and the Visiting Research Programmes were postponed to later dates and will resume when the public health and travel situations normalise.

Notes and coins



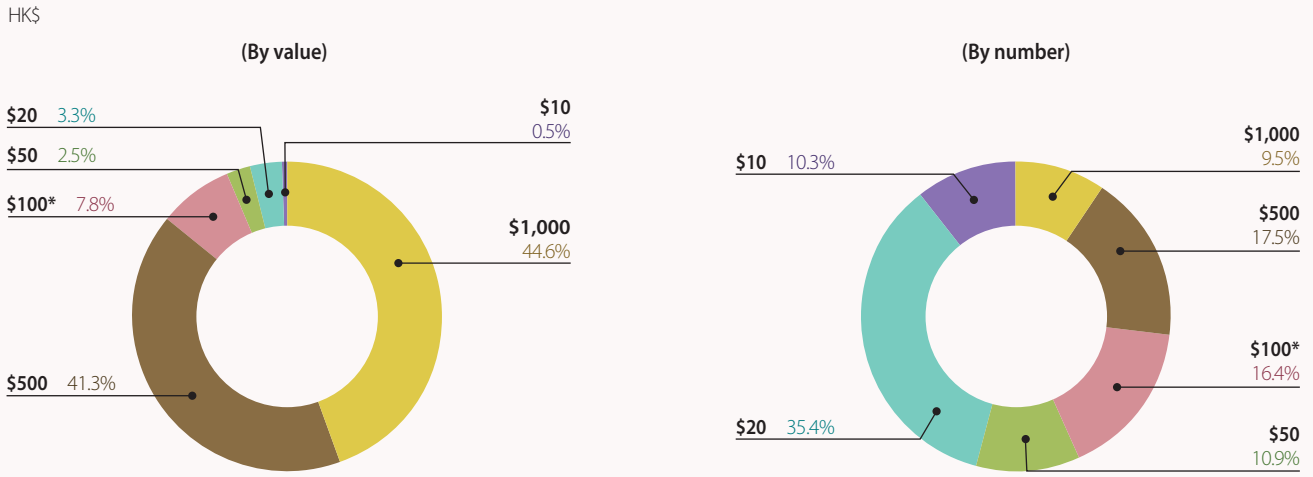
At the end of 2020, the total value of banknotes (notes issued by note-issuing banks) in circulation was HK\$559.5 billion, an increase of 8.3% from a year earlier (Charts 5, 6 and 7). The total value of government-issued currency notes and coins in circulation amounted to HK\$12.7 billion, down 0.6% (Charts 8 and 9). Among the government-issued currency notes and coins, the value of HK\$10 notes in circulation amounted to HK\$4.6 billion, 79% of which were polymer notes.

Chart 5 Banknotes in circulation by note-issuing banks at the end of 2020



Monetary Stability

Chart 6 Distribution of banknotes in circulation at the end of 2020



* Includes 0.1 percentage point contributed by HK\$150 banknote.

Chart 7 Banknotes in circulation at the end of 2020

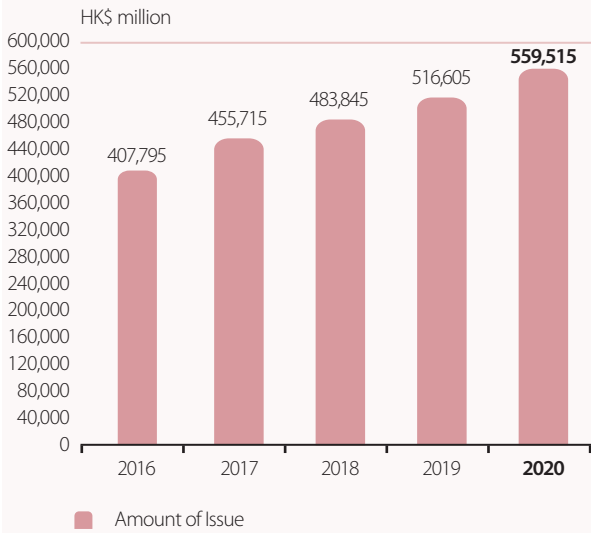
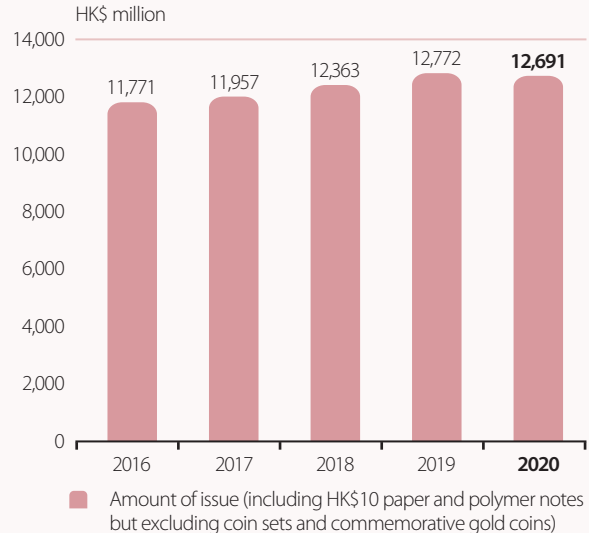
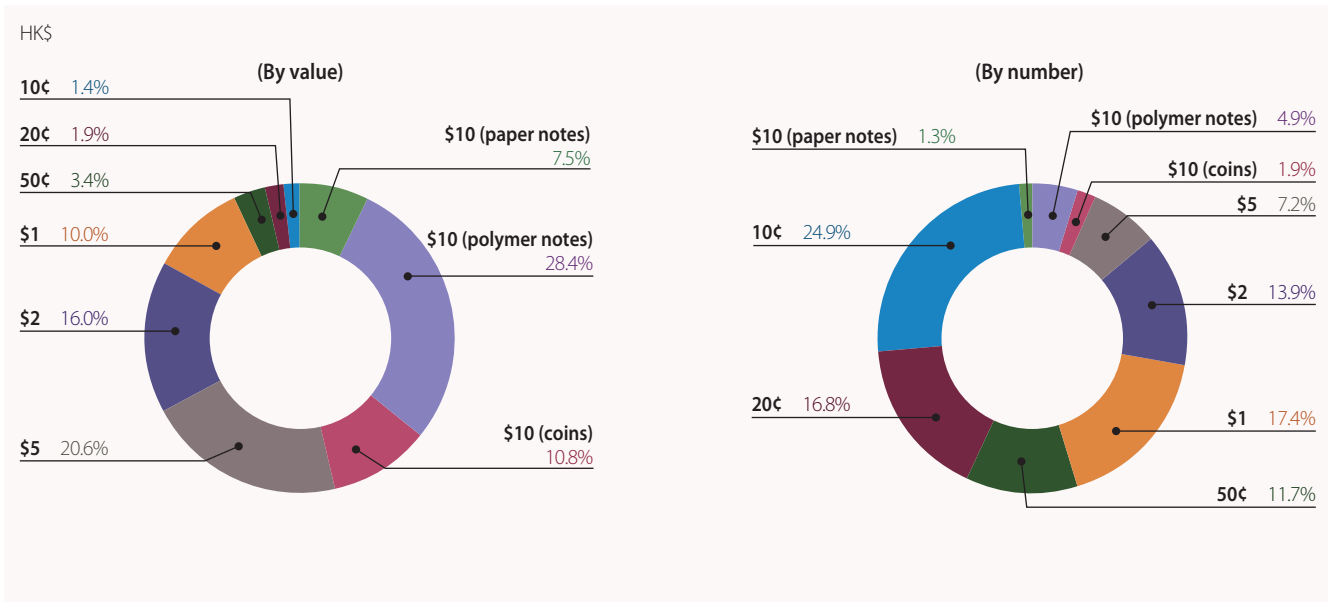


Chart 8 Government-issued currency notes and coins in circulation at the end of 2020



Monetary Stability

Chart 9 Breakdown of government-issued currency notes and coins in circulation at the end of 2020



Hong Kong banknotes

With the issuance of the new HK\$20 and HK\$50 banknotes in January 2020, all the five denominations of the latest 2018 Series are in circulation. The 2018 Series, which carry robust and easy-to-use security features, are well received by the public and gradually replacing the old version banknotes.

During the year, the HKMA continued to provide seminars on the design and security features of Hong Kong banknotes. Eight seminars were arranged, including online sessions, for over 2,000 bank tellers, retailers and students to raise public awareness.

Monetary Stability

Coin Collection Programme

The Coin Collection Programme, launched in October 2014, continued to be well received by the public. It is the world's first structured coin collection scheme, with two mobile trucks, known as Coin Carts, visiting the public across all 18 districts of Hong Kong on a rotational basis. Each Coin Cart is equipped with two high-speed coin counting machines. The public may choose to exchange their coins for banknotes, top up their stored value facilities such as Octopus cards or e-wallets, or donate the coins to the Community Chest box on board. Collaborating with the Hong Kong Council of Social Service, the Coin Carts collected coins on flag days for non-governmental organisations. The Coin Carts also visited schools to raise students' awareness of the programme. Over the years, the Coin Collection Programme has won several local and international awards in recognition of its innovative and green approach.

Details of the programme and its up-to-date information, including the service schedule, are available on a designated page of the HKMA website (coincollection.hkma.gov.hk).



By end-2020, the two Coin Carts had served about **778,000** people and collected **631 million** pieces of coins with a total face value of **HK\$932 million** since inception.

Exchange Fund Bills and Notes

The EFBN Programme continued to operate smoothly. The HKMA reduced the issuance size of Exchange Fund Bills by a total of HK\$20 billion in April and May to increase liquidity in the interbank market amidst a volatile global macro environment brought about by COVID-19. At the end of 2020, the nominal amount of outstanding Exchange Fund papers stood at HK\$1,068.1 billion (Table 2).

Table 2 Outstanding issues of EFBNs

HK\$ million	2020	2019
Exchange Fund Bills (by original maturity)		
28 days	0	1,800
91 days	630,430	644,362
182 days	361,000	357,600
364 days	51,700	51,700
Sub-total	1,043,130	1,055,462
Exchange Fund Notes (by remaining tenor)		
1 year or below	6,400	6,400
Over 1 year and up to 3 years	9,800	8,600
Over 3 years and up to 5 years	4,000	5,600
Over 5 years and up to 10 years	4,800	6,000
Sub-total	25,000	26,600
Total	1,068,130	1,082,062

Monetary Stability

PLANS FOR 2021 AND BEYOND



While the global economy is expected to recover in 2021 with the rollout of the COVID-19 vaccines and the release of pent-up demand, the outlook remains highly uncertain

and much will depend on the pandemic development and the availability and reach of the vaccines. While these uncertainties, together with the lingering China-US tension, may lead to higher volatility in the flow of funds, Hong Kong's financial system is able to withstand adverse shocks given the resilience and buffers built up over the years. The HKMA has the capability, resources and commitment to safeguard monetary and financial stability.

The HKMA will continue to closely monitor risks and vulnerabilities in the domestic and external environments and stand ready to deploy appropriate measures where necessary to maintain Hong Kong's monetary and financial stability. Research programmes in 2021 will study issues affecting the Hong Kong economy and assess their potential risks. The CBC will continue to examine issues relevant to Hong Kong's monetary and financial stability, review the technical aspects of the Currency Board arrangements and, where appropriate, recommend measures to strengthen them.