

# Monetary Stability

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Despite weakening pressure on the Hong Kong dollar exchange rate, the Hong Kong dollar exchange and money markets continued to operate in an orderly manner with ample liquidity. The Linked Exchange Rate System has served as a strong anchor for Hong Kong's monetary and financial stability and proved to be highly resilient against various shocks.



## 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 notes and coins in circulation
- the Aggregate Balance, which is the sum of the clearing account balances of banks 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 2017	31 December 2016
Certificates of Indebtedness <sup>1</sup>	455,715	407,795
Government-issued currency notes and coins in circulation <sup>1</sup>	12,186	12,000
Balance of the banking system	179,790	259,593
EFBNs issued <sup>2</sup>	1,047,244	962,579
<b>Total</b>	<b>1,694,935</b>	<b>1,641,967</b>

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 balance sheet date. This arrangement is in accordance with the accounting principles generally accepted in Hong Kong.
2. 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 on the balance sheet. 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 HKMA's firm commitment to honour the Convertibility Undertakings (CUs). When the demand for Hong Kong dollars is greater than the supply and the market exchange rate strengthens to the strong-side CU of HK\$7.75 to one US dollar, the HKMA stands ready to sell Hong Kong dollars to banks for US dollars. The Aggregate Balance will then expand to push down Hong Kong dollar interest rates, creating monetary conditions that move the

Hong Kong dollar away from the strong-side limit to within the Convertibility Zone of 7.75 to 7.85. Conversely, if the supply of Hong Kong dollars is greater than the demand and the market exchange rate weakens to the weak-side CU of HK\$7.85 to one US dollar, the HKMA will buy Hong Kong dollars from banks. The Aggregate Balance will then contract to drive Hong Kong dollar interest rates up, pushing the Hong Kong dollar away from the weak-side limit to stay within the Convertibility Zone.

## Monetary Stability

### REVIEW OF 2017

#### Exchange rate stability

The Hong Kong dollar exchange rate generally saw weakening pressure in 2017 (Chart 1). Driven mainly by interest carry trade activities amid widened negative spreads between the Hong Kong dollar and US dollar interest rates, the Hong Kong dollar eased gradually against the US dollar, from 7.7566 on 3 January to the year-low of 7.8265 on 22 August. The Hong Kong dollar exchange rate

gained some strength between late September and early November, underpinned by a tightening of Hong Kong dollar liquidity due to initial public offering (IPO)-related funding demand, and traded steadily within a narrow range of 7.80–7.81. Weakening pressures on the Hong Kong dollar were seen again towards the end of the year, partly reflecting slightly improved Hong Kong dollar liquidity conditions as well as increased year-end commercial demand for the US dollar. Overall, the Hong Kong dollar exchange market functioned normally throughout 2017.

**Chart 1 Market exchange rate in 2017**



## Monetary Stability

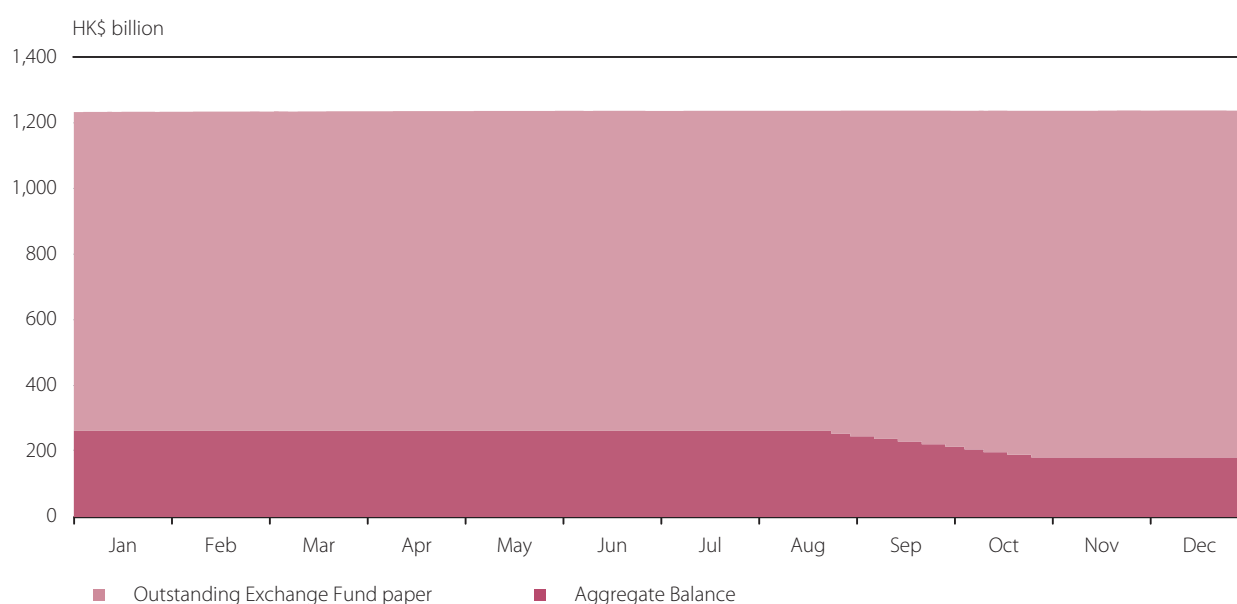
As the CUs were not triggered, the total of the Aggregate Balance and outstanding EFBNs remained virtually unchanged at around HK\$1,225.3 billion in 2017 (Chart 2). During the year, the HKMA issued a total of HK\$80 billion additional Exchange Fund Bills to meet banks' increased demand for liquidity management. This led to a

contraction of the Aggregate Balance to HK\$179.8 billion at the end of 2017. The issuance of additional Exchange Fund Bills was consistent with Currency Board principles, as it only represented a change in the composition of the Monetary Base, with a shift from the Aggregate Balance to the outstanding EFBNs. The Monetary Base remained fully backed by foreign exchange reserves.

Total Aggregate Balance and outstanding Exchange Fund Bills and Notes at around **HK\$1,225.3 billion**.



**Chart 2 Aggregate Balance and outstanding Exchange Fund paper in 2017**



## Monetary Stability

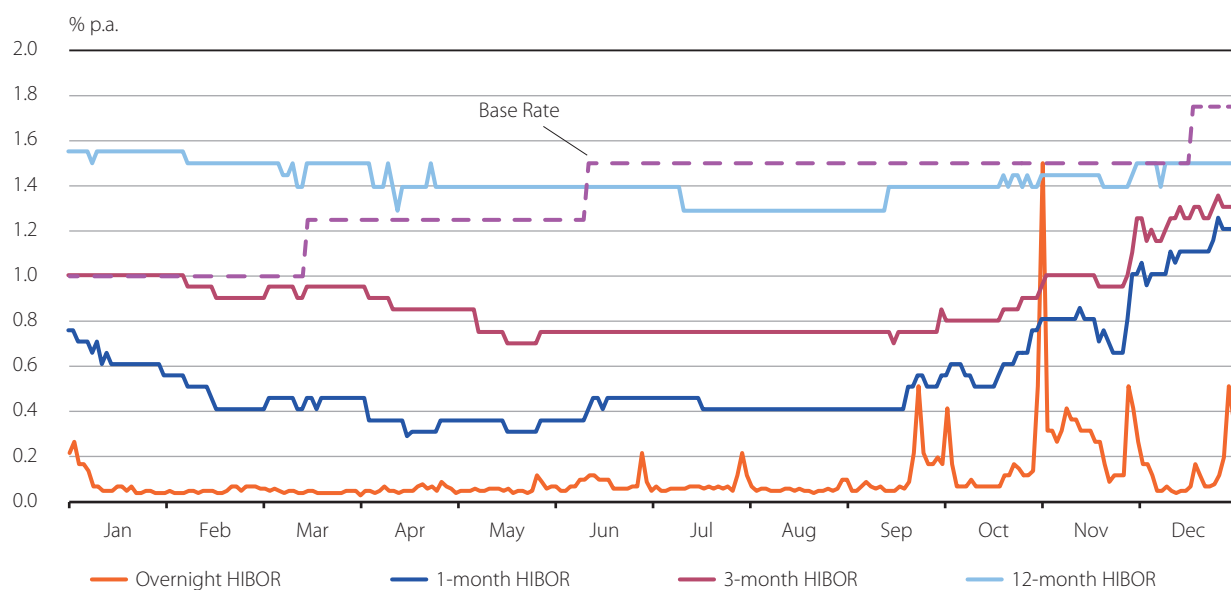
### Money market

The Hong Kong dollar interbank interest rates stayed soft in the first eight months of 2017 before facing more upward pressure towards the end of the year (Chart 3). Despite concerns about the US Federal Reserve's interest rate hikes and balance sheet normalisation, the Hong Kong dollar interbank rates generally remained soft for the first eight months. As such, the negative spreads between the Hong Kong dollar and US dollar interest rates widened between January and August. From September onward, the short-dated Hong Kong dollar interbank rates witnessed large pick-ups, driven mainly by IPO-related and year-end funding demand. Correspondingly, the negative spreads between the Hong Kong dollar and US dollar interest rates narrowed

in the short-dated segment. Overall, the short-dated interbank rates traded mostly below the Base Rate in 2017.

The Base Rate was adjusted upwards on 16 March, 15 June and 14 December, by a total of 75 basis points from 1.00% to 1.75%, as the target range for the US federal funds rate moved upward three times by a total of 75 basis points from 0.50–0.75% to 1.25–1.50% during the year. The adjustment of the Base Rate was in accordance with the revised formula announced on 26 March 2009, in which the Base Rate is set 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 Hong Kong Interbank Offered Rates (HIBORs), whichever is the higher.

**Chart 3 Hong Kong dollar interbank interest rates in 2017**



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Roughly tracking the movements of the Hong Kong dollar-US dollar interest rate spreads, the discounts of the Hong Kong dollar forward points widened gradually during the first three quarters, with the 12-month Hong Kong dollar forward points reaching about -615 pips in mid-September (Chart 4). In the fourth quarter, the discounts of the Hong Kong dollar forward points narrowed slightly

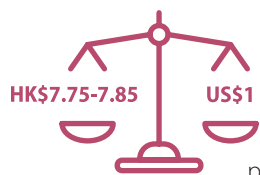
along with the narrowing of the negative spreads between the Hong Kong dollar and US dollar interest rates. Overall, Hong Kong's money market continued to operate in an orderly manner and interbank liquidity remained ample. Discount Window borrowing increased from HK\$5.3 billion in 2016 to HK\$10.3 billion in 2017.

**Chart 4 Hong Kong dollar forward points in 2017**



## Monetary Stability

### The Linked Exchange Rate System



Since its establishment in 1983, the Linked Exchange Rate System (LERS) has served as a strong anchor for Hong Kong's monetary and financial stability, and proved to be highly resilient in a series of regional and global financial crises. The Government has reasserted its full commitment to the LERS and the credibility of its commitment was further reinforced by the stability in the foreign exchange and money markets. There is also continued strong public confidence in the Hong Kong dollar as a means of payment and a storage of value. In its 2017 Article IV consultation with Hong Kong, the International Monetary Fund reaffirmed its support for the LERS, commenting that the LERS remained the best exchange rate arrangement for Hong Kong. Combined with robust financial supervision and regulation, prudent fiscal management, and flexible markets, the LERS has worked well to help Hong Kong navigate successfully through both external and domestic challenges.

International Monetary Fund:

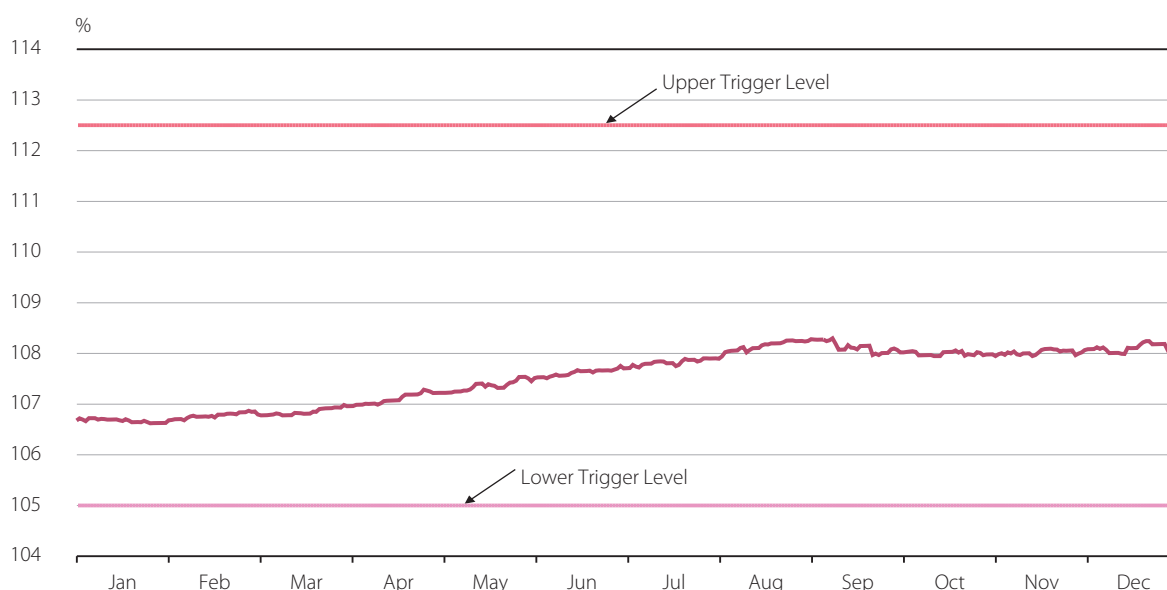
**“The Linked Exchange Rate System remains the best arrangement for Hong Kong.”**

A sound banking system is crucial to the normal functioning of the LERS. During 2017, the HKMA continued to monitor

closely banks' management of credit, liquidity and interest rate risks and stress-test results, and stepped up its supervisory efforts on corporate, property-related and mainland-related lending to bolster the resilience of the banking sector. As the US Federal Reserve continues to normalise its monetary policy, the Hong Kong dollar interest rates will gradually normalise as well. The HKMA reiterated that, under the design of the LERS, the outflow of capital, the weakening of the Hong Kong dollar exchange rate, the triggering of the weak-side CU and the reduction of the Monetary Base are part of the necessary process of the normalisation of Hong Kong dollar interest rates. The HKMA also reminded the public to manage their risks prudently and be well prepared for potential financial turbulence.

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 106.7–108.2% during 2017, without touching the Upper or Lower Trigger Level. The ratio closed at 108.1% on 31 December (Chart 5). 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. In the event of abrupt shocks, the sizeable amount of financial resources of the Exchange Fund will provide a powerful backstop in protecting Hong Kong's monetary and financial stability.

**Chart 5 Daily movement of the Backing Ratio in 2017**



## Monetary Stability

### Other activities

The Currency Board Sub-Committee (CBC) of the Exchange Fund Advisory Committee monitors and reviews issues relevant to the monetary and financial stability of Hong Kong. In 2017, the CBC considered various issues, including the drivers of short-run dynamics in Hong Kong's housing prices, the determinants of HIBOR-London Interbank Offered Rate (LIBOR) spreads, the effect of property valuation changes on corporate borrowing in Mainland China, and the effect of mortgage debt service burden on private consumption in Hong Kong. Records of the CBC's discussions on these issues and the reports on Currency Board operations submitted to the CBC are published on the HKMA website.

The Hong Kong Institute for Monetary Research (HKIMR) continued to sponsor research in the fields of monetary policy, banking and finance. Over the past three years, the HKIMR has been re-orienting its activities towards higher policy relevance. This is reflected, in particular, in its conference activities and visiting fellowship programmes. The HKIMR has been collaborating with major central banks and policy institutions to jointly organise more policy-focused conferences. Meanwhile, a thematic research fellowship programme introduced in 2016 has been supporting more research projects related to policy issues that are of importance to the HKMA.

In 2017, the HKIMR hosted 18 research fellows and published 29 working papers. It also organised four international conferences and workshops during the year:

- The Eighth Annual International Conference on the Chinese Economy, titled "China's Economic Rebalancing: Where is it Heading?", was held in January in Hong Kong. The conference provided a forum for academics, policy makers and business economists to discuss important analytical and policy issues related to the Mainland economy. 11 high-quality research papers were presented, covering a wide variety of issues including Mainland's economic rebalancing, structural reform and international spillovers, issues on the renminbi exchange rate, and Mainland's monetary policy framework and transmission.

- The 15th HKIMR Summer Workshop was held in July. The workshop was intended to provide an opportunity for staff members of the HKIMR and the HKMA to present their research papers, and to enhance interaction between research staff and visiting fellows.
- A joint conference organised by the HKMA and the Bank for International Settlements, titled "The Price, Real and Financial Effects of Exchange Rates", was held in August. The conference provided a platform for in-depth and insightful discussion. A wide range of important topics were covered, including the exchange rate system, the pricing system of international trade, risk taking in the accumulation of foreign currency reserves, and foreign exchange market behaviour.
- A conference jointly sponsored by the HKMA, the US Federal Reserve Board and the Federal Reserve Bank of Atlanta on "Unconventional Monetary Policy: Lessons Learned" was held in October. The conference reviewed lessons learned from the unconventional monetary policies (UMP) of major central banks over the past ten years. The topics included monetary policy in a low interest rate environment, UMP and its spillovers to emerging economies, UMP and bank lending, and UMP and its effects on the real economy and financial stability.

In addition, the HKIMR held 35 public seminars during the year covering a broad range of economic, monetary and financial issues.



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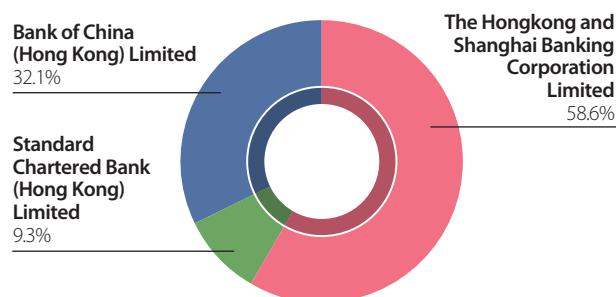
### Notes and coins



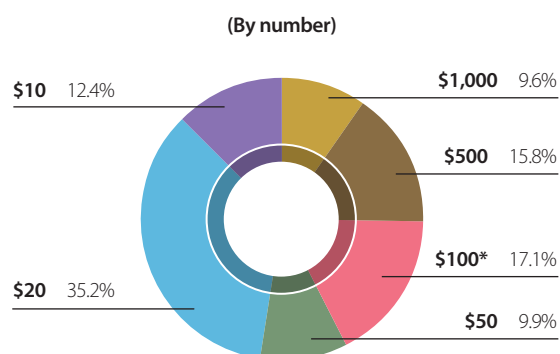
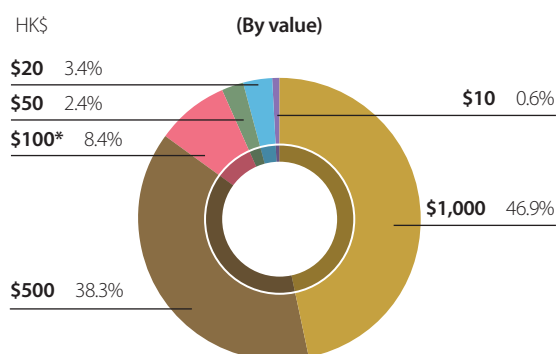
At the end of 2017, the total value of banknotes (notes issued by note-issuing banks) in circulation was HK\$455.7 billion, an increase of 11.7% from a year earlier (Charts 6, 7 and

8). The total value of government-issued notes and coins in circulation amounted to HK\$12.0 billion, up 1.6% (Charts 9 and 10). Among the government-issued notes and coins, the value of HK\$10 notes in circulation amounted to HK\$4.3 billion, 85% of which were polymer notes.

**Chart 6 Banknotes in circulation by note-issuing banks at the end of 2017**

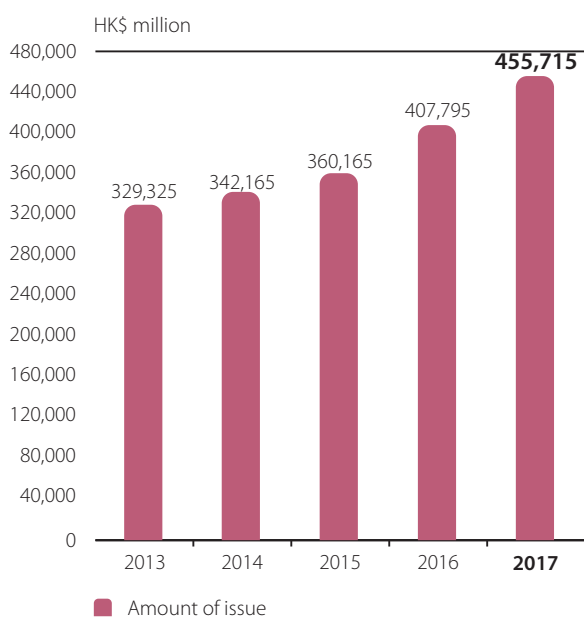


**Chart 7 Distribution of banknotes in circulation at the end of 2017**

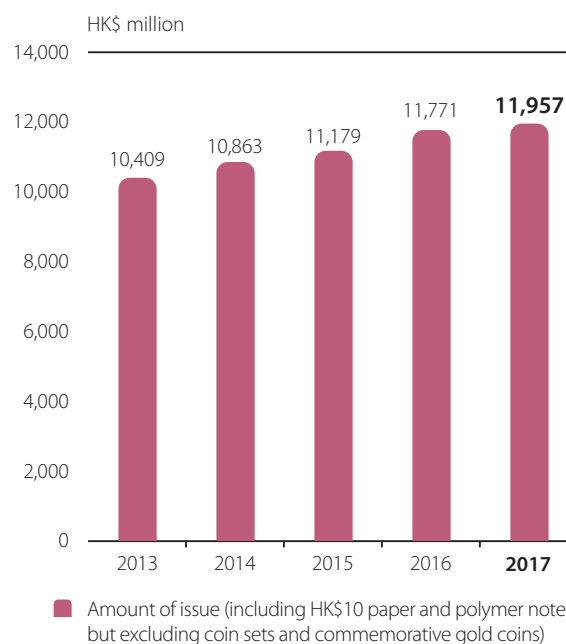


\* Includes 0.1 percentage point contributed by HK\$150 banknote.

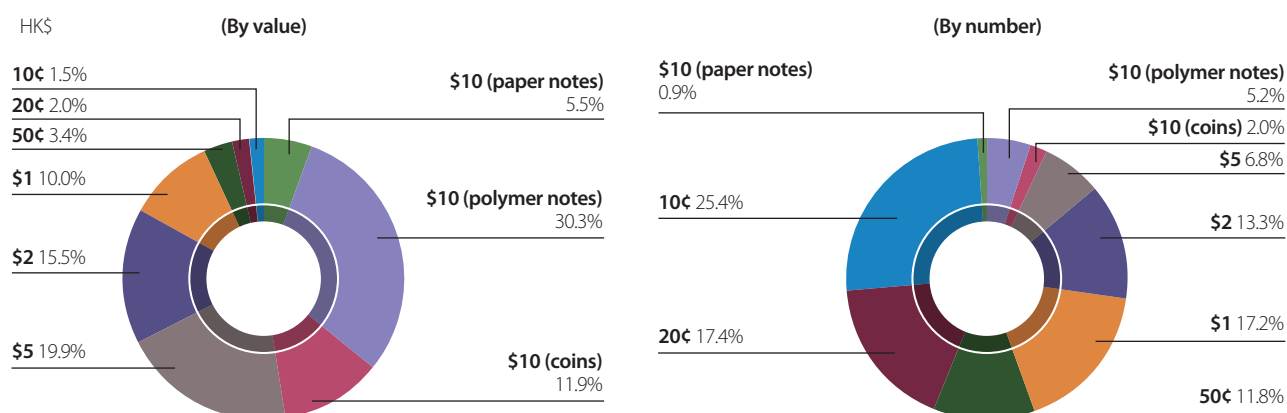
**Chart 8 Banknotes in circulation at the end of 2017**



**Chart 9 Government-issued notes and coins in circulation at the end of 2017**



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**Chart 10 Government-issued notes and coins in circulation at the end of 2017****Hong Kong banknotes**

The HKMA and the three note-issuing banks are preparing for the launch of a new series of banknotes with completely new designs and advanced security features.

Meanwhile, the HKMA continued its public education programme to promote awareness of the designs and security features of Hong Kong's current banknotes. During the year, 26 seminars were conducted for over 4,200 participants, including bank tellers, retailers and students, to enhance their knowledge and skills in authenticating banknotes.

**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.

Up to end-2017, the two Coin Carts have served about 380,000 people and collected 320 million pieces of coins with a total face value of HK\$421 million since inception. 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](http://coincollection.hkma.gov.hk)).

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## Monetary Stability

### Exchange Fund Bills and Notes

To satisfy the strong demand from banks for short-dated Exchange Fund Bills, for example, for liquidity management purposes, the HKMA issued a total of HK\$80 billion worth of

additional Exchange Fund Bills in the second half of 2017.

The additional issuance resulted in a corresponding reduction of the Aggregate Balance. At the end of 2017, the nominal amount of outstanding Exchange Fund paper stood at HK\$1,048.5 billion (Table 2).

**Table 2 Outstanding issues of EFBNs**

HK\$ million	2017	2016
<b>Exchange Fund Bills (by original maturity)</b>		
28 days	2,200	2,200
91 days	605,779	524,998
182 days	351,000	338,000
364 days	51,700	49,700
<b>Sub-total</b>	<b>1,010,679</b>	<b>914,898</b>
<b>Exchange Fund Notes (by remaining tenor)</b>		
1 year or below	10,400	15,200
Over 1 year and up to 3 years	12,000	16,000
Over 3 years and up to 5 years	3,800	3,200
Over 5 years and up to 10 years	9,200	10,200
Over 10 years	2,400	3,600
<b>Sub-total</b>	<b>37,800</b>	<b>48,200</b>
<b>Total</b>	<b>1,048,479</b>	<b>963,098</b>

## Monetary Stability

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### PLANS FOR 2018 AND BEYOND



While the world's major economies have been growing in sync, the outlook for the global financial environment remains uncertain in 2018. In particular, the uncertain timing and pace of monetary policy normalisation across

major advanced economies, coupled with the possibilities of escalating geopolitical tensions and rising trade protectionism, may weigh on global financial conditions. In Hong Kong, fund flows may become more volatile and the risk of fund flow reversals may increase.

The HKMA will continue to monitor closely the 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. More research will be conducted on 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.