Monetary Stability

Monetary conditions remained stable in 2007 despite domestic and external shocks, demonstrating the resilience of the Linked Exchange Rate system. Activities in Hong Kong's foreign exchange and money markets were generally orderly, although there was increased volatility in exchange rates and interest rates in the second half of 2007.

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 per cent backed by US dollar reserves held in the Exchange Fund, and changes in the Monetary Base to be 100 per cent matched by corresponding changes in US dollar reserves.

The Monetary Base comprises (Table 1)

- 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 clearing account balances of banks kept with the HKMA
- Exchange Fund Bills and Notes issued by the HKMA on behalf of the Government.

> Monetary Base

Table 1. Monetary Base

$ million	31 Dec 2007	31 Dec 2006
Certificates of Indebtedness[1]	**163,435**	157,385
Government-issued notes and coins in circulation[1]	**7,547**	6,862
Balance of the banking system	**10,639**	2,035
Exchange Fund Bills and Notes issued[2]	**138,369**	132,113
TOTAL	**319,990**	298,395

[1] The Certificates of Indebtedness and the government-issued 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 Exchange Fund Bills and Notes (EFBN) shown here is different from that in the balance sheet of the Exchange Fund in this Annual Report. In accordance with the accounting principles generally accepted in Hong Kong, the EFBN held by the HKMA on behalf of the Exchange Fund in relation to its trading of the EFBN in the secondary market are offset against the EFBN issued, and the net amount is recorded in the balance sheet. The EFBN issued on tender dates but not yet settled are included in the balance sheet but excluded from the Monetary Base.

The stability of the Hong Kong dollar exchange rate is maintained through an automatic interest-rate adjustment mechanism as well as the firm commitment to honour the Convertibility Undertakings (CUs) by the HKMA. When the demand for Hong Kong dollars is greater than supply and the market exchange rate strengthens to the strong-side CU of HK$7.75 to the 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. On the other hand, if the supply of Hong Kong dollars is greater than demand

and the market exchange rate weakens to the weak-side CU of HK$7.85 to the 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 > Currency Board System

REVIEW OF 2007

Monetary conditions remained stable in 2007 despite continued strengthening of the renminbi; a number of large initial public offerings (IPOs) in the equities market; increased volatility in global financial markets in the wake of the US sub-prime mortgage crisis; and large and unpredictable capital flows partly induced by the announcement of the pilot scheme for Mainland individuals to invest directly in the Hong Kong equity market (the so-called "through train" scheme) and the scheme's subsequent delay. This underscored the resilience of the Linked Exchange Rate system in the face of domestic and external shocks.

Throughout 2007, activities in Hong Kong's foreign exchange and money markets were generally orderly, although there was increased volatility in exchange rates and interest rates in the second half of the year. Under the present monetary arrangements, the CUs limit the fluctuations of the Hong Kong dollar exchange rate within a narrow band, and the Discount Window borrowing mechanism dampens volatility of domestic interest rates during shocks.

After staying close to the strong side of the Convertibility Zone in 2006, the Hong Kong dollar market exchange rate depreciated in the first seven months of 2007, reaching a peak of 7.8295 on 2 and 3 August (Chart 1). This partly reflected interest rate arbitrage taking advantage of the lower domestic interest rates relative to those of the US and the conversion of proceeds from IPOs into US dollars by Mainland companies newly listed in Hong Kong. When the renminbi strengthened beyond the Hong Kong dollar spot exchange rate in mid-January, there was little reaction in the foreign exchange market.[1] This suggests that the HKMA was successful in managing market expectations to address speculation that the Hong Kong dollar would follow the appreciation of the renminbi.

Chart 1. Market exchange rate, January-December 2007

[1] The renminbi appreciated beyond 7.85 (entering the Convertibility Zone of the Hong Kong dollar) on 27 November 2006, breached 7.80 on 11 January 2007, surpassed the Hong Kong dollar on 15 January 2007, and appreciated beyond 7.75 (leaving the Convertibility Zone) on 16 February 2007.

From August to October, the Hong Kong dollar exchange rate quickly strengthened towards the strong-side CU of 7.75. The rise was due to several factors. In August the US sub-prime mortgage problems and the resulting increase in global risk aversion induced the unwinding of Hong Kong dollar-funded carry-trade positions. Later, equity-related demand for Hong Kong dollars increased substantially under the influence of a series of heavily subscribed IPOs between September and November. A buoyant stock market, which was partly boosted by the announcement of the "through train" scheme allowing Mainland residents to invest in the local stock market and the extension of the Qualified Domestic Institutional Investors scheme, also helped sustain equity-related demand for the Hong Kong dollar.

Following the strengthening of the Hong Kong dollar to near the strong-side CU, the HKMA operated within the Convertibility Zone on 23 October, for the second time since the introduction of the three refinements in 2005.[2] On that day, the Hong Kong dollar spot exchange rate once touched 7.75 although no banks approached the HKMA to activate the strong-side CU. Meanwhile, short-term Hong Kong dollar interest rates were firm and a forthcoming large IPO was expected to tighten the money market considerably. Taking into account the prevailing market conditions, the HKMA operated within the Convertibility Zone, selling Hong Kong dollars against US dollars. The Aggregate Balance increased by $775 million on 25 October (Chart 2). This operation was consistent with the Currency Board principles because the increase in the Aggregate Balance, which is a component of the Monetary Base, was fully matched by an increase in the US dollar reserves.

Chart 2. Aggregate Balance, January-December 2007

[2] The first time the HKMA operated within the Convertibility Zone was on 25 May 2005, shortly after the introduction of the three refinements to the Linked Exchange Rate system. The HKMA sold HK$554 million to banks on that date, catering to increased liquidity demand arising from a number of equity IPOs.

Licensed banks triggered the strong-side CU once on 26 October and five times on 31 October, prompting the HKMA to passively sell Hong Kong dollars against US dollars at HK$7.75 to US$1. The strong demand for Hong Kong dollars was supported by persistent equity-related inflows associated with a large IPO and the buoyant stock market. Rumours regarding possible changes to the peg also briefly boosted speculative demand for Hong Kong dollars. With the triggering of the strong-side CU, the Aggregate Balance increased by $775 million on 30 October and $7,828 million on 2 November. These market operations softened both the Hong Kong dollar exchange rate and interbank interest rates, normalising the relationship between a strong exchange rate and tight interbank interest rates observed previously.

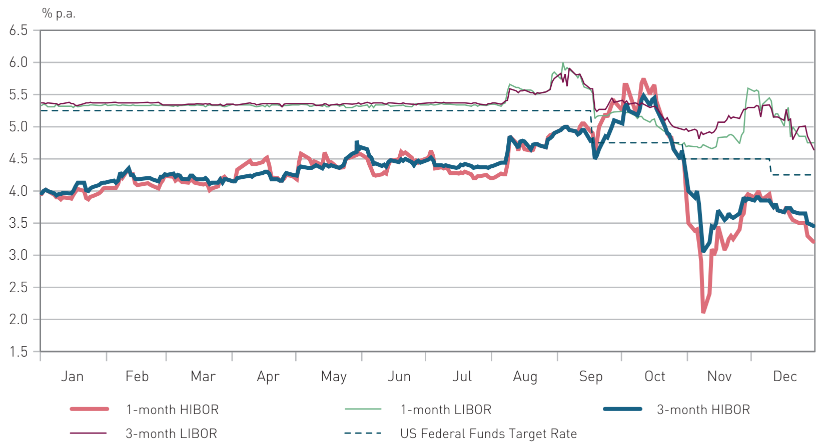
In the last two months of 2007, the Hong Kong dollar exchange rate depreciated towards the centre of the Convertibility Zone due to carry trades in a low interbank interest rate environment. In the absence of further triggering of the CU, the Aggregate Balance closed at around $10.6 billion at the end of 2007, after staying at $1.3 billion for more than two years.

Movements in the Hong Kong dollar interbank interest rates largely tracked the equivalent US dollar rates, with occasional deviations due to sharp rises in funding demand arising from heavily subscribed IPOs. Part of the volatility of US dollar interest rates between August and December was transmitted to local interbank interest rates, as shown by the increased standard deviation of daily changes in one-month interbank interest rates (relative to the annual average level) over the same period. However, banks and other financial institutions in Hong Kong are generally well capitalised and experienced in dealing with this situation.

Hong Kong dollar interbank interest rates generally increased between January and mid-September, first as a result of interest rate arbitrage activities, and then because of increased liquidity demand arising from concerns about the effect of the US sub-prime mortgage problem (Chart 3). There were temporary decreases in short-term Hong Kong Interbank Offered Rates (HIBORs) when the US Federal Reserve cut both the federal funds target rate and the discount rate by 50 basis points to 4.75% and 5.25% respectively on 18 September.

Short-term HIBORs rose shortly afterwards. The one-month and three-month HIBORs reached highs of 5.75% and 5.48% respectively on 12 October, underpinned by the increased funding demand associated with IPOs of Mainland companies. For a short period, the HIBORs were higher than the corresponding US dollar London Interbank Offered Rates (LIBORs), as the latter declined along with the easing US monetary policy. This resulted

Chart 3. HIBORs and LIBORs, January-December 2007



in a temporarily positive HIBOR-LIBOR differential in mid-October (Chart 4).

From mid-October, Hong Kong dollar interbank interest rates eased, gaining momentum when the supply of liquid funds in the interbank market increased because of the expansion in the Aggregate Balance after the triggering of the strong-side CU. The one-month and three-month HIBOR-LIBOR differentials also turned negative and widened. On 31 October, the US Federal Reserve reduced the federal funds target rate by another 25 basis points to 4.50%, further reinforcing the declines in HIBORs and LIBORs.

While overseas financial markets showed signs of improvement following the US Federal Reserve's actions in mid-September and late-October, the market situation and sentiment deteriorated significantly as major US financial institutions and some of their Structured Investment Vehicles reported multi-billion dollar write-offs for sub-prime-related debt securities and a large decline in quarterly profits. Continued bad news from the US finance industry increased uncertainties about the magnitude and impact of sub-prime-related losses and fuelled fears that losses would be much worse than anticipated, leading to a renewed bout of risk aversion and rising credit spreads in almost all asset classes.

Consequently, short-term LIBORs increased markedly and were well above the US federal funds target rate in November. Because of this external factor, coupled with higher domestic liquidity demand associated with IPO activities, domestic interbank interest rates also rose. However, there were no signs of spill-over from the US sub-prime mortgage crisis causing stress in the local credit markets. Discount Window borrowing activity remained normal, and the overnight interbank interest rate did not exceed the Base Rate.

On 11 December, the US Federal Reserve cut the federal funds target rate by another 25 basis points to 4.25% to address increased strains in financial markets and slowing economic growth associated with intensifying correction in the US housing market. On the following day, the US Federal Reserve, the Bank of England, the European Central Bank, the Bank of Canada, and the Swiss National Bank announced a joint effort to address elevated pressures in short-term funding markets by injecting term funds through a range of counterparties and against a broader range of collateral than that used for open market operations. The resulting decreases in short-term LIBORs were followed by a similar decline in short-term HIBORs and the negative HIBOR-LIBOR differentials of around 150 basis points persisted towards the end of 2007.

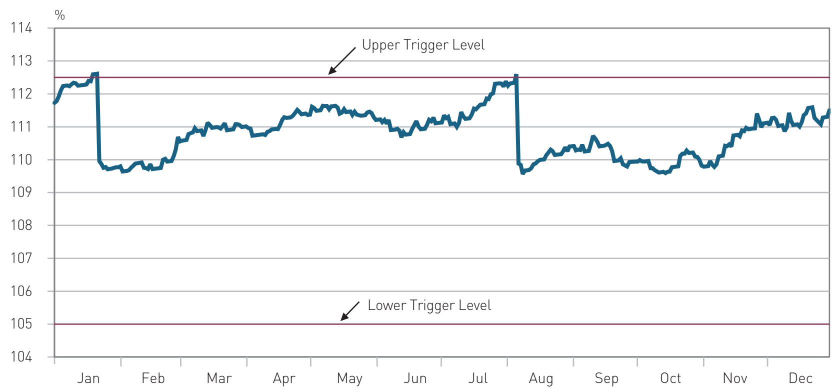
Chart 4. HK dollar – US dollar interest rate differentials, January-December 2007

Despite momentarily turning from discounts to small premiums in mid-October, the Hong Kong dollar forward points were generally negative, narrowing from January to mid-October but then widening (Chart 5). This was consistent with the movements in the interest rate differentials. The three-month and 12-month forward points closed at -260 and -660 pips respectively on 31 December.

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 over the Monetary Base, surpassed 112.5% (defined as the Upper Trigger Level) on 21 January and 6 August, reflecting interest income and revaluation gains (Chart 6). Under the arrangements approved by the Financial Secretary in 2000, a portion of the Backing Assets was then transferred to the Investment Portfolio, restoring the Backing Ratio to around 110% on 22 January and 7 August. Following the asset transfer in August, there were downward pressures on the Backing Ratio as the effect of interest income was offset by valuation losses, resulting from the strengthening of the Hong Kong dollar

Chart 5. Hong Kong dollar forward points, January-December 2007

Chart 6. Daily movement of the Backing Ratio, January-December 2007



against the US dollar, and the subsequent expansion of the Aggregate Balance.[3] In November and December, benefiting from revaluation gains associated with the weakening of the Hong Kong dollar against the US dollar and interest income, the Backing Ratio increased again and closed at 111.5% on 31 December.

Activities at the HKMA

The EFAC Currency Board Sub-Committee, established in August 1998, continued to monitor and review issues pertinent to monetary and financial stability in Hong Kong. Records of the Sub-Committee's meetings and the monthly reports on Currency Board operations submitted to the Sub-Committee are published on the website of the HKMA. In 2007, these issues included the best lending rate adjustment decisions of Hong Kong banks, Hong Kong's trade patterns and trade elasticities, the behaviour of the Hong Kong dollar exchange rate within the Convertibility Zone and the credibility of the Linked Exchange Rate system, sources of employment growth in Hong Kong, the significance of Mainland macroeconomic shocks in affecting Hong Kong's interest rates, the impact of the renminbi exchange rate on Asian currencies, the equilibrium real effective exchange rate of the Hong Kong dollar, and the development of an early warning system for banking distress.

> Press Releases > Monetary Policy

The Hong Kong Institute for Monetary Research, established in August 1999, continued to sponsor research in the fields of monetary policy, banking and finance. In 2007, the Institute hosted 15 full-time and five part-time research fellows. It also published 24 working papers and one occasional paper, and jointly published a book entitled *Hong Kong's Link to the US Dollar* by John Greenwood with the Hong Kong University Press.

The Institute co-organised two international conferences. The first, held in April with the Centre of Asian Studies of the Hong Kong University, reviewed the monetary and banking history of Hong Kong. The second, held in July with the Hong Kong University of Science and Technology, looked at the issues of monetary policy and monetary transmission mechanisms in open economies. In October, the Institute organised jointly with the Wang Yanan Institute for Studies in Economics of the Xiamen University a two-day workshop entitled "Analysing, Modelling and Forecasting Macroeconomic Fluctuations in Mainland China". Other programmes included a joint three-day workshop in May with the Bank of England's Centre for Central Banking Studies on advanced economic modelling and forecasting, with participants from seven central banks in the region, and the Fifth Summer Workshop in August. In addition to conferences and workshops, 52 public seminars were organised during the year on a broad range of economic and monetary issues.

> Research

PLANS FOR 2008 AND BEYOND

The global economy is facing a high degree of uncertainty. The HKMA will continue to monitor risks and vulnerabilities in the domestic and external environment. The EFAC Currency Board Sub-Committee will 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. Examples include the increase in the supply of Exchange Fund paper to meet the strong demand for settlements alongside the increase in equity market transactions, and the strengthening of the efficiency of Hong Kong's payment systems to handle large and volatile payment flows.

3 The expansion in the Aggregate Balance exerted a downward influence on the Backing Ratio because while the Backing Assets rose by the same magnitude as the Monetary Base (as required under the Currency Board arrangements), the proportional increase was smaller in the former due to its larger size.