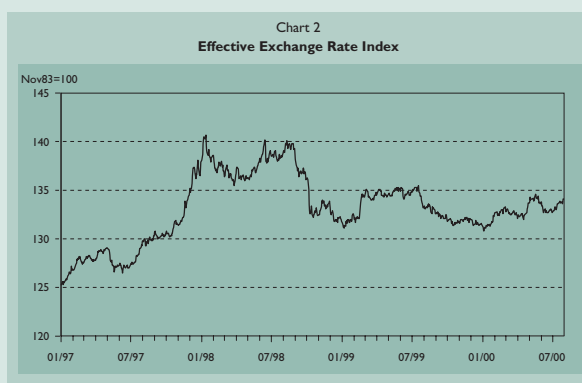
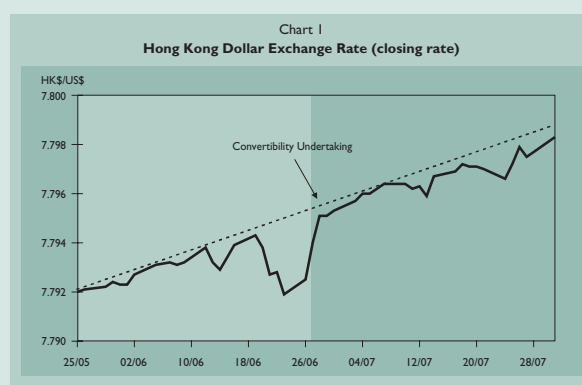


## REPORT ON CURRENCY BOARD OPERATIONS (27 JUNE - 31 JULY 2000)

The market exchange rate for the Hong Kong dollar eased slightly from 7.7940 to 7.7983, broadly in line with the movement of the convertibility rate in respect of the Aggregate Balance. The Convertibility Undertaking was triggered on 7 July and the Aggregate Balance shrank into negative territory, leading to a temporary firming of local interest rates. At the end of the reporting period, the exchange rate closed at 7.7983, 5 pips stronger than the convertibility rate. The monetary base rose from HK\$204.80 bn to HK\$207.82 bn during the reporting period. Changes in the monetary base were fully matched by corresponding changes in foreign reserves in accordance with the Currency Board arrangements.

### Hong Kong Dollar Exchange Rate

The Hong Kong dollar exchange rate eased slightly from 7.7940 to 7.7983 during the reporting period, broadly matching the movement of the convertibility rate in respect of the Aggregate Balance. Alongside an increase in interbank liquidity with the sale of some Hong Kong dollars by the HKMA in response to bank offers in late June, Hong Kong dollar interest rates softened and the exchange rate started to ease. The Convertibility Undertaking was triggered in the London market on 7 July, and the HKMA bought a total of HK\$1.17 bn. The Aggregate Balance shrank into negative territory accordingly, while local interest rates firmed up. Thereafter, amid some inflows of funds, the exchange rate strengthened to reach 7.7959 on 13 July. In response to bank offers, the HKMA sold a total of HK\$0.39 bn in the New York market on 13 July, bringing the Aggregate Balance back to positive territory. The exchange rate then eased marginally, but strengthened again to 7.7966 on 24 July. The HKMA sold another HK\$0.78 bn in response to bank offers. The exchange rate subsequently eased to close at 7.7983 at the end of the period, 5 pips stronger than the convertibility rate (Charts 1 and 2).



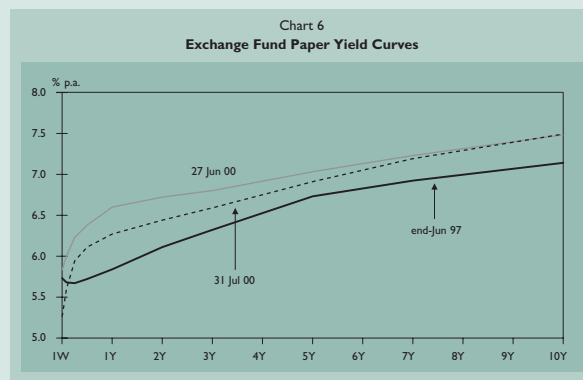
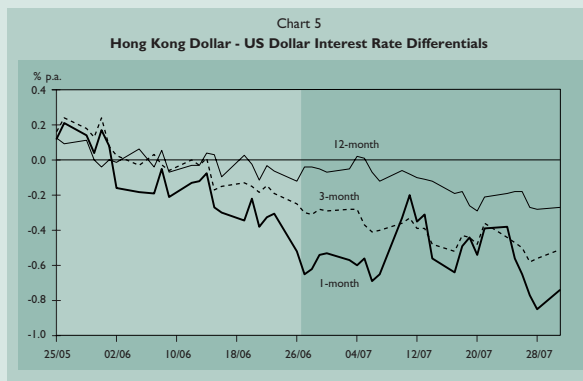
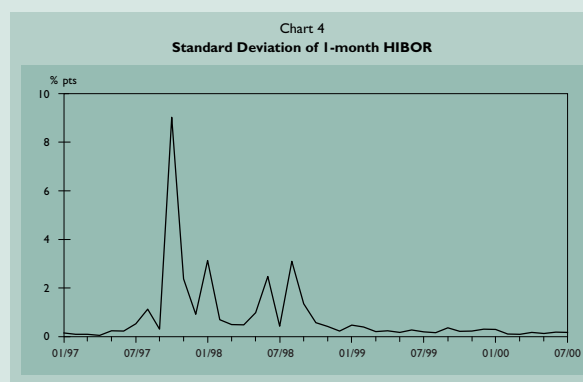
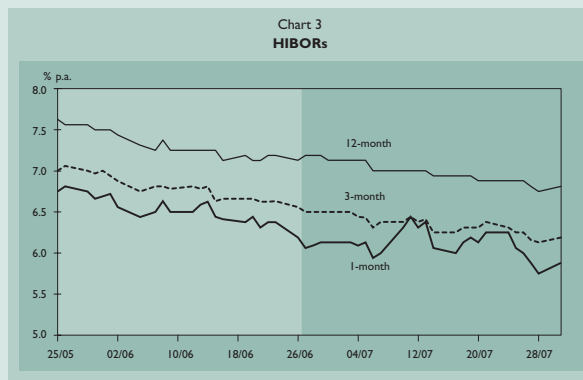
## Interest Rates

Interbank interest rates moved on a general downtrend during the reporting period, with **1-month HIBOR easing from 6.06% on 27 June to 5.88% on 31 July**. 1-month HIBOR was generally steady in late June before rising significantly to 6.44% on 11 July when the Aggregate Balance fell to a negative level of HK\$0.14 bn. It subsequently eased to 6.00% on 17 July as the Aggregate Balance returned to a positive level. Thereafter, as the Aggregate Balance increased further to HK\$1.10 bn on 28 July, 1-month HIBOR eased to 5.75% before closing at 5.88% at the end of the reporting period. 3-month HIBOR followed a similar downward trend, easing from 6.50% to 6.19%. **12-month HIBOR also eased from 7.19% to 6.81%** during the reporting period (Chart 3).

**Interest rate volatility**, measured in terms of the standard deviation of 1-month HIBOR (Chart 4), **decreased slightly** from 0.19 percentage points in June to 0.18 percentage points in July (up to 31 July).

Reflecting the downward movements of Hong Kong dollar interbank interest rates, **the negative spreads between Hong Kong dollar and US dollar interbank rates widened during the reporting period**. The negative spread in respect of 1-month rates, which stood at -65bp at the beginning of the reporting period, narrowed to -20 bp on 11 July when the Aggregate Balance shrank to a negative level. Subsequently, it widened to -64 bp on 17 July as the Aggregate Balance rebounded to positive territory. Towards the end of the reporting period, the negative spread widened further to reach -85 bp on 28 July on the back of a higher Aggregate Balance before closing at -75 bp at the end of the reporting period. Likewise, **the negative spread between 12-month Hong Kong dollar and US dollar interbank rates widened from -4 bp to -27 bp** during the reporting period (Chart 5).

In line with the softening of local interbank interest rates, **yields on Exchange Fund paper declined** during the reporting period (Chart 6). Yields on 5-year and 10-year Exchange Fund notes decreased by 12 bp and 1 bp to 6.91% and 7.49% respectively. **The yield spread between 5-year Exchange Fund**



paper and US Treasuries remained at 64 bp, while the yield spread between 10-year Exchange Fund paper and US Treasuries widened by 3 bp to 133 bp on 31 July (Table 1).

The savings rate under the Interest Rate Rules and the best lending rate offered by major banks remained unchanged during the period. The weighted average deposit rate offered by 44 major authorised institutions for 1-month time deposits (which are outside the Interest Rate Rules) decreased from 6.44% on 16 June to 6.08% on 21 July. The effective deposit rate<sup>1</sup> increased from 4.75% in May to 4.89% in June (Chart 7).

#### Base Rate

The Base Rate remained unchanged at 8.0% (150 basis points above the US Fed Funds Target Rate) (Chart 8).

#### Monetary Base

The monetary base, which comprises the outstanding amount of Certificates of Indebtedness, coins in circulation, the Aggregate Balance and the outstanding amount of Exchange Fund Bills and Notes, increased from HK\$204.80 bn on 27 June to HK\$207.82 bn on 31 July (Table 2). Movements in the individual components are discussed below.

Table 1  
Yield Spreads between Exchange Fund Paper and US Treasuries (basis points)

	27-Jun-97	27-Jun-00	31-Jul-00
3-month	56	31	-36
1-year	21	35	12
3-year	3	25	11
5-year	27	64	64
10-year	54	130	133

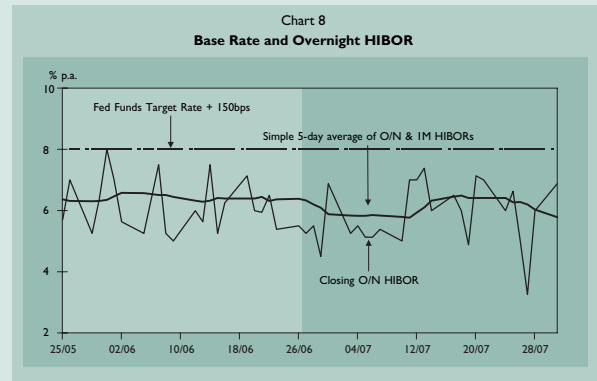
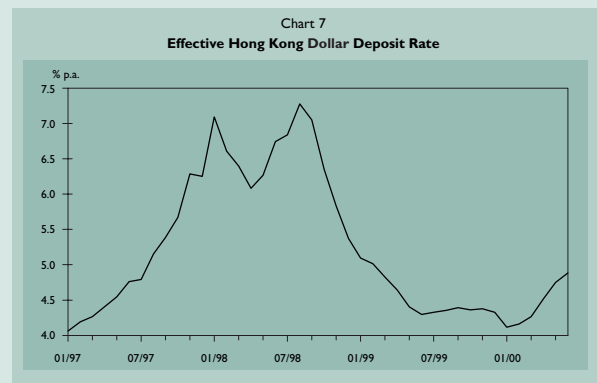


Table 2  
Monetary Base

(HK\$ bn)	27-Jun	31-Jul
CIs	92.79	94.64
Coins in Circulation	6.01	6.00
Aggregate Balance	0.63	1.12
Outstanding EFBNs	105.37	106.07
Monetary Base	204.80	207.82

<sup>1</sup> This is the weighted average of the interest rates on demand deposits, savings and time deposits. As the banking statistics classify deposits by remaining maturities, we have used certain assumptions regarding the maturity distribution to compute the effective deposit rate.

### Certificates of Indebtedness

During the reporting period, the outstanding amount of Certificates of Indebtedness (CIs) increased from HK\$92.79 bn to HK\$94.64 bn. In anticipation of an increase in public demand for banknotes early in the month, the three Note Issuing Banks (NIBs) submitted to the HKMA a total of US\$0.37 bn in exchange for HK\$2.86 bn worth of Certificates of Indebtedness (CIs) between 27 and 30 June. The NIBs then redeemed a total of HK\$1.44 bn in exchange for US\$0.18 bn during the rest of the reporting period. As a result, a net increase in **the outstanding amount of CIs** of HK\$1.42 bn was recorded during the reporting period (Chart 9).

### Coins

The total amount of **coins in circulation** decreased marginally from HK\$6.01 bn to HK\$6 bn during the period (Chart 10).

### Aggregate Balance

The **Aggregate Balance** increased from **HK\$0.63 bn to HK\$1.12 bn during the reporting period**. As a result of the sale of HK\$0.39 bn by the HKMA in response to bank offers on 26 June for settlement of 28 June, the Aggregate Balance increased to HK\$1.03 bn on 28 June. Thereafter, as the HKMA bought a total of HK\$1.17 bn under the Convertibility Undertaking on 7 July, the Aggregate Balance shrank to a negative level of HK\$0.14 bn on 11 July. Reflecting the HKMA sale of a total of HK\$0.39 bn in response to bank offers on 13 July, the Aggregate Balance rebounded to a positive level of HK\$0.32 bn on 17 July. As the HKMA sold another HK\$0.78 bn on 24 July in response to bank offers, the Aggregate Balance increased further to HK\$1.05 bn on 26 July (Table 3 and Chart 11).

During the reporting period, a **total of HK\$0.64 bn of interest payments on Exchange Fund paper were made**, while an **additional HK\$0.54 bn (market value) of Exchange Fund paper was issued to absorb these interest payments**. The remaining amount was carried forward in the Aggregate Balance.

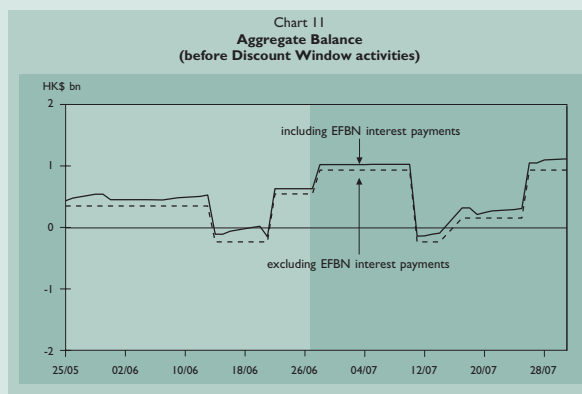
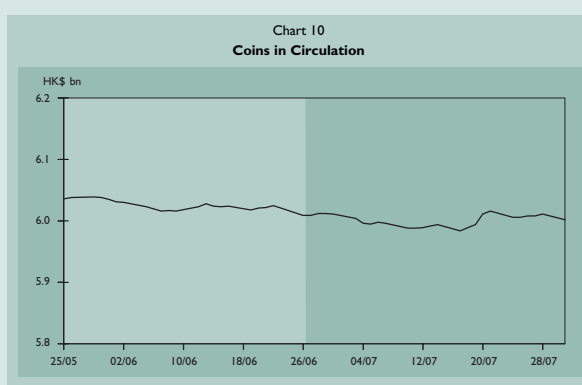
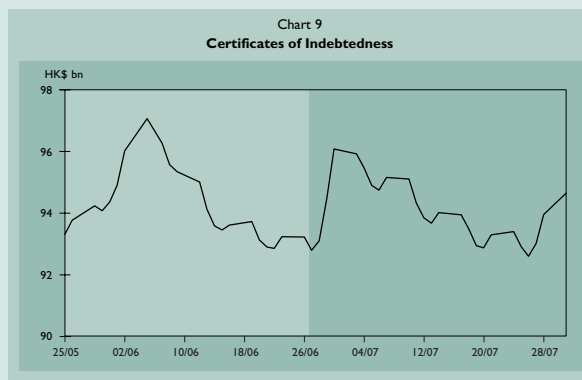


Table 3  
HKMA Hong Kong Dollar/US Dollar  
Foreign Exchange Transactions\*  
(27 June – 31 July)

Trade Date	Net Hong Kong Dollar Purchase (+) / Sale (-) (HK\$ mn)
07 July	+1,169
13 July	-390
24 July	-780
<b>Total</b>	<b>-1</b>

\* Foreign exchange transactions may be due for settlement today, on the next business day, or the day after, at which point they would affect the Aggregate Balance.

### Outstanding Exchange Fund Bills and Notes

During the reporting period, the market value of outstanding Exchange Fund paper increased slightly from HK\$105.38 bn to HK\$106.07 bn. The increase was mainly a result of additional net issues (referred to in paragraph 12 above). All issues of Exchange Fund Bills and Notes were well received by the market (Table 4). Holdings of Exchange Fund paper by the banking sector before discount window activities increased during the period, from HK\$89.44 bn (or 84.9% of total) on 27 June to HK\$93.69 bn (or 88.3% of total) on 31 July (Chart 12).

### Discount Window Activities

The Discount Window provides banks access to overnight liquidity to facilitate their cash flow management, and hence helps to ensure the smooth functioning of the interbank payment system. Banks' access is unrestricted in respect of borrowings collateralised against Exchange Fund paper. Discount Window borrowing remained rather active during the reporting period. For the period as a whole, banks in total borrowed HK\$6.09 bn from the HKMA, compared with HK\$7.70 bn in the preceding period. All of the borrowings used Exchange Fund paper as collateral (Chart 13).

A total of 24 banks borrowed overnight funds through the Discount Window (Table 5), compared with 31 banks in the preceding period. Most banks used the Discount Window facility only infrequently.

Table 4  
Issuance of Exchange Fund Paper  
(27 June – 31 July)

	No. of Issues Launched	Over-subscription Ratio
1-month EFB	3	3.12-7.43
3-month EFB	5	2.41-3.36
6-month EFB	3	4.82-5.55
12-month EFB	1	7.43
3-year EFN	1	7.53

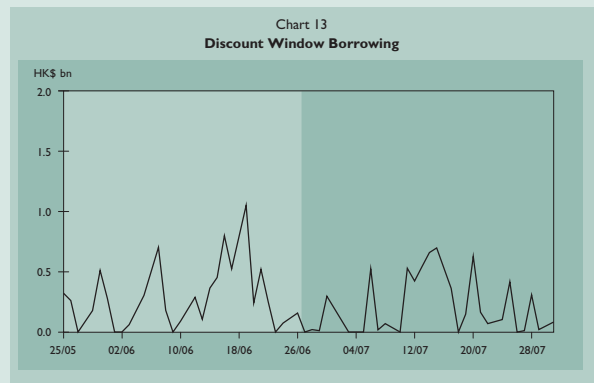
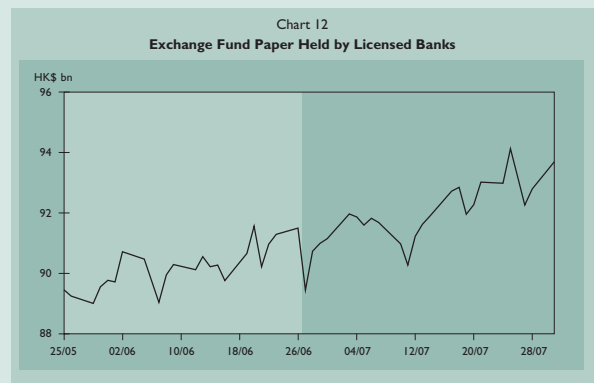

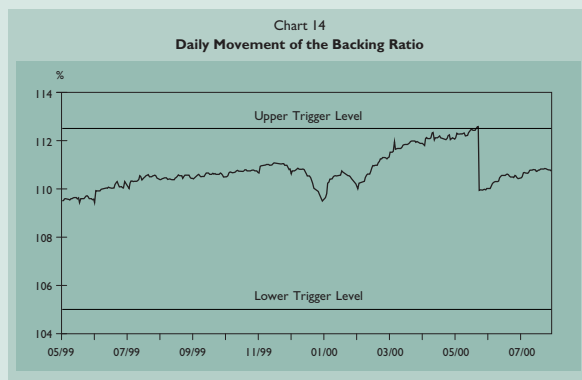


Table 5  
Frequency of Individual Bank's  
Access to the Discount Window  
(27 June – 31 July)

Frequency of Using Discount Window	No. of Banks
1	15
2	2
3	3
4	1
>4	3
<b>Total</b>	<b>24</b>

## Backing Portfolio

During the reporting period, backing assets increased alongside an expansion of the monetary base. However, the value of backing assets increased at a faster pace than that of the monetary base, partly due to positive net investment income. This had the effect of pushing **the backing ratio up from 110.56% on 27 June to 110.73% on 31 July (Chart 14)**. Under the linked exchange rate system, although 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. 



# RECORD OF DISCUSSION OF THE EXCHANGE FUND ADVISORY COMMITTEE SUB-COMMITTEE ON CURRENCY BOARD OPERATIONS ON 31 AUGUST 2000

(Approved for Issue by the Exchange Fund Advisory Committee on 21 September 2000)

## Currency Board Operations for the Period 1 - 20 August 2000

The Sub-Committee noted that, during the period under review, the Hong Kong dollar exchange rate remained stable. The main highlight of this period was the convergence, on 12 August, of the Convertibility Undertaking in respect of the Aggregate Balance with the Convertibility Undertaking for Certificates of Indebtedness, completing the 500-day transition period. Members observed that in early August there had been a considerable widening of the differentials between Hong Kong dollar and US dollar interest rates, with historically large negative spreads in the first week of August. This was understood to reflect an underlying demand for Hong Kong dollar assets, particularly equities, and some uncertainty in the market about the strategy the HKMA would follow after the convergence of the Convertibility Undertakings on 12 August, which had encouraged some banks to reduce their US dollar positions. As the Aggregate Balance shrank to a negative level on 17 August, the negative spreads between Hong Kong dollar and US dollar interest rates had substantially narrowed. Members noted that during this period the backing ratio had increased from 110.76% to 111.07%. They also noted that, in accordance with the Currency Board principle, all changes in the monetary base were fully matched by corresponding changes in foreign reserves.

The report on Currency Board operations for the period under review is at **Annex A**.

## Strong-Side Operation Strategy

The Sub-Committee considered a paper outlining the HKMA's strategy in conducting foreign exchange operations on the strong side of the linked exchange rate. Members agreed that the complex interaction of a number of different circumstances that could trigger the sale by the HKMA of Hong Kong dollars for US dollars tended to preclude the prescription of any specific rule for intervention on the strong side. Among these circumstances were: speculative inflows into the Hong Kong dollar; a significant, non-speculative increase in the demand for Hong Kong dollars; a sharp shrinkage in the aggregate balance arising from speculative outflows or large commercial selling orders; and individual banks offering to sell US dollars to the HKMA to meet their liquidity needs or to adjust their portfolios. Members observed that the difficulty of devising a precise

framework for deciding how these and other factors should be weighed in different circumstances, coupled with the lack of operational experience of the system and of how the market might interpret the HKMA's actions, added to the arguments against introducing specific rules to govern operations on the strong side.

Members noted, however, the dangers both of injecting liquidity too quickly into the system when the Aggregate Balance dipped below zero, which could give rise to perceptions that the HKMA was seeking to suppress the working of the interest rate adjustment mechanism and reduce the incentive for banks to obtain Hong Kong dollars on their own initiative, and of acting too slowly, which could lead to unnecessarily large fluctuations in the exchange rate and interest rates. They agreed that, in simple, conceptual terms, the HKMA should take account of three main factors, working in synergy, in formulating an appropriate response. These factors were: the spread of the exchange rate from the level of 7.8000, the interest rate differential between the Hong Kong dollar and the US dollar, and the level of the Aggregate Balance. The courses of action open to the HKMA on the strong side of the link could be categorised in the following way:

No action :	the HKMA normally would not accept offers to sell US dollars
Passive :	the HKMA is prepared to consider offers from banks
Discretionary:	the HKMA may adopt a more active approach in purchasing US dollars

Having noted this conceptual framework, Members agreed that the HKMA should continue to exercise flexibility in its operations on the strong side, in view of the complexity of circumstances giving rise to market conditions.

## Decomposing Changes in the Backing Ratio

The Sub-Committee noted an information paper on certain refinements to the methodology for decomposing past changes in the backing ratio into three components: autonomous changes in the monetary base, net interest income from investments, and revaluation gains (or losses). The main aim of the refinements was to correct significant distortions arising out of an accounting practice of including interest earned on discount paper (mainly US Treasury bills) in revaluation gains or losses. The refined method provided a more

accurate analysis of the factors contributing to the movements in the ratio: it showed that the rise in the ratio over the past year had been almost entirely attributable to net investment income, which suggested that the introduction of the 112.5% trigger level was a prudent measure. Members noted that similar decomposition exercises would be conducted in the future.


### **A Monetary Conditions Index for Hong Kong**

Members considered an information paper that presented an estimate of a Monetary Conditions Index (MCI) for Hong Kong, which was a weighted sum of the real interest rate and the real effective exchange rate (REER), with weights reflecting the relative effects of the two variables on aggregate demand. Members noted that the MCI was a simplified, composite indicator, and one of a number of indicators of monetary and financial conditions. They further noted that under the linked exchange rate system, movements in both interest rates and the effective exchange rate were exogenous. They therefore observed that the MCI should be viewed exclusively as an indicator of monetary and financial conditions, rather than a measure of monetary policy stance. Members also remarked that, while an MCI had uses for academic purposes, there were a number of problems in using it as an instrument for deciding monetary policy, even in floating exchange rate regimes. The Sub-Committee noted that analysis using the MCI suggested that swings in the REER resulting from the Asian financial crisis had led to tighter, and subsequently easier, financial conditions than were indicated by changes in the real interest rate alone.

### **Seasonal Adjustment of Hong Kong's Monetary Statistics**

The Sub-Committee noted an information paper on the seasonal adjustment of Hong Kong's monetary statistics, using special high-frequency filtering to take account of increased currency holdings in the Chinese New Year season and an adjustment for the increase in cash demand associated with Y2K as well as increases in demand deposits due to initial public offers (IPOs), in addition to conventional techniques. Members noted that seasonally adjusted currency, demand deposits and Hong Kong dollar M1 series would be published in the HKMA's Monthly Statistical Bulletin in the near future.

### **Exchange Fund Bills and Notes Programme**

Members noted a consultation paper issued to the Hong Kong Capital Markets Association on possible measures to promote primary and secondary market activities in Exchange Fund Notes, and outlining a proposed scheme to reduce the concentration of Exchange Fund paper at the short end through the replacement of some Exchange Fund Bills issues by longer-term Exchange Fund Note issues. 



## REPORT ON CURRENCY BOARD OPERATIONS (1 - 20 AUGUST 2000)

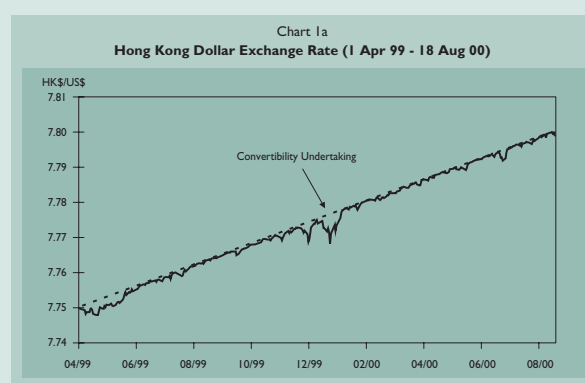
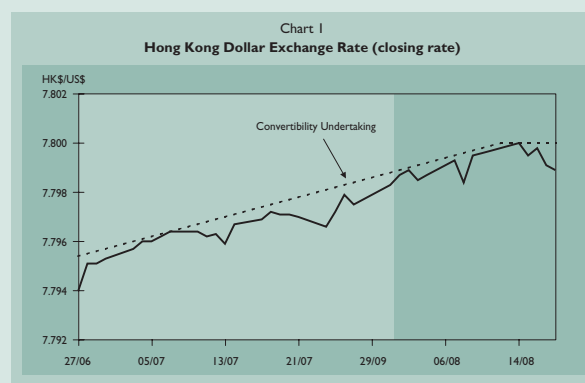
The market exchange rate for the Hong Kong dollar remained stable during the review period. On 12 August, the convertibility rate in respect of the Aggregate Balance reached 7.8000, smoothly completing the 500-day transition to converge with the convertibility rate for Certificates of Indebtedness. Largely reflecting soft local interbank interest rates relative to the US rates, there was increased selling of Hong Kong dollars in mid-August. The Convertibility Undertaking was triggered, and the Aggregate Balance was reduced to a level of around zero since 17 August. Outstanding Certificates of Indebtedness also registered a decline during the period, as a result of which the monetary base as a whole contracted from HK\$207.68 bn to HK\$205.72 bn. In accordance with the Currency Board principle, changes in the monetary base were fully matched by corresponding changes in foreign reserves.

### Hong Kong Dollar Exchange Rate

The Hong Kong dollar exchange rate eased marginally from 7.7987 to 7.7989 during the reporting period. Amid some inflows of funds, the exchange rate briefly strengthened to 7.7984 on 8 August. It then eased alongside the convertibility rate in respect of the Aggregate Balance.

On 12 August, the convertibility rate finished its one-pip-per-day movement to converge to 7.8000, the convertibility rate for the issue and redemption of Certificates of Indebtedness. While there were some guesses on the next steps to be taken by the HKMA upon the unification of the two convertibility rates, the 500-day transition was completed with no disruption to the market (Chart 1a).

As Hong Kong dollar interest rates continued to stay below their US counterparts (refer to paragraph 4 below), there was increased selling of Hong Kong dollars in mid-August. The exchange rate weakened to hit the convertibility rate on 15 August, and a total of HK\$1.01 bn was sold under the Convertibility Undertaking. As a result, the Aggregate Balance shrank into negative territory and local interest rates firmed up. The Hong Kong dollar exchange rate subsequently strengthened on the back of higher interest rates, and reached 7.7989 at the end of the reporting period, 11 pips stronger than the convertibility rate of 7.8000 (Chart 1 and 2). The Aggregate Balance increased to HK\$0.79 bn on 23 August, as the HKMA bought US dollars for Hong Kong dollars in response to bank offers.



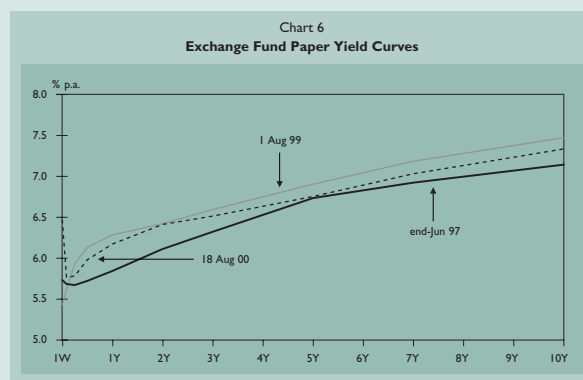
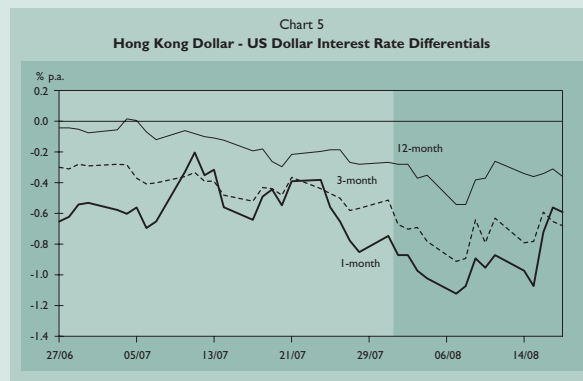
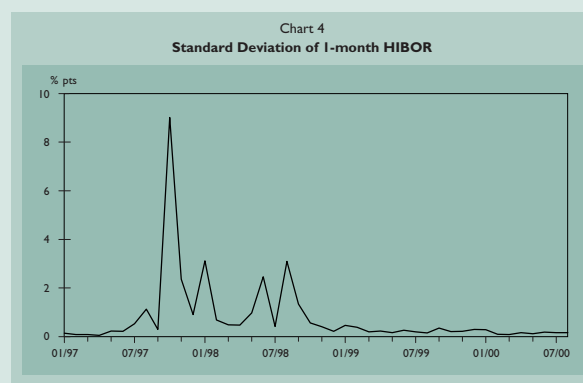
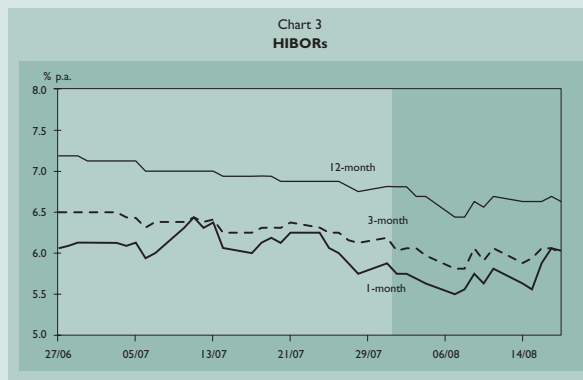
## Interest Rates

Interbank interest rates eased marginally in early August, following a downward trend in July. 1-month HIBOR fell from 5.75% on 1 August to 5.50% on 7 August. It then moved within a narrow range before firming to 6.06% on 17 August as a result of a shrinkage of the Aggregate Balance. 3-month and 12-month HIBORs followed a similar pattern, but their increases towards the end of the period were much more moderate compared with shorter-term rates. For the period as a whole, **3-month and 12-month HIBOR eased** by 3 bp and 18 bp to 6.00% and 6.63% respectively (Chart 3).

Measured in terms of the standard deviation of 1-month HIBOR, **interest rate volatility decreased slightly** from 0.18 percentage points in July to 0.17 percentage points in August (up to 18 August) (Chart 4).

Reflecting soft Hong Kong dollar interbank interest rates, **the spreads between Hong Kong dollar and US dollar interbank rates remained in the negative territory during the reporting period.** The negative spread in terms of 1-month rates once widened to -112 bp on 7 August. As the Aggregate Balance shrank to a negative level on 17 August, the differential narrowed substantially to -56 bp, and finally closed at -59 bp, compared with -87 bp at the beginning of the reporting period. **The negative spread in respect of 12-month money, on the other hand, widened** from -28 bp to -37 bp during the reporting period (Chart 5).

**Yields on Exchange Fund paper, except for those at the very short-end, declined** during the reporting period (Chart 6). Following a firming of short-term rates on the back of tightened liquidity conditions, the yield curve was inverted at the very short-end. In respect of longer-term rates, yields on 5-year and 10-year Exchange Fund Notes decreased by 15 bp and 14 bp to 6.75% and 7.33% respectively. **The yield spread between 5-year Exchange Fund paper and US Treasuries narrowed** by 14 bp to 51 bp,



while the yield spread between 10-year Exchange Fund paper and US Treasuries widened by 10 bp to 143 bp on 18 August (Table 1).

Both the Savings Rate and the Best Lending Rate remained unchanged during the period. The weighted average deposit rate offered by 44 major authorised institutions for 1-month time deposits (which are outside the Interest Rate Rules) decreased from 6.08% on 21 July to 5.63% on 11 August. The effective deposit rate<sup>1</sup> decreased from 4.89% in June to 4.82% in July (Chart 7).

#### Base Rate

The Base Rate remained unchanged at 8.0% (150 basis points above the US Fed Funds Target Rate) (Chart 8).

#### Monetary Base

The monetary base, which comprises the outstanding amount of Certificates of Indebtedness, coins in circulation, the Aggregate Balance and the outstanding amount of Exchange Fund Bills and Notes, decreased from HK\$207.68 bn on 1 August to HK\$205.72 bn on 18 August (Table 2). Movements in the individual components are discussed below.

Table 1  
Yield Spreads between Exchange Fund Paper and US Treasuries (basis points)

	27-Jun-97	1-Aug-00	18-Aug-00
3-month	56	-42	-57
1-year	21	-12	-11
3-year	3	11	13
5-year	27	65	51
10-year	54	133	143

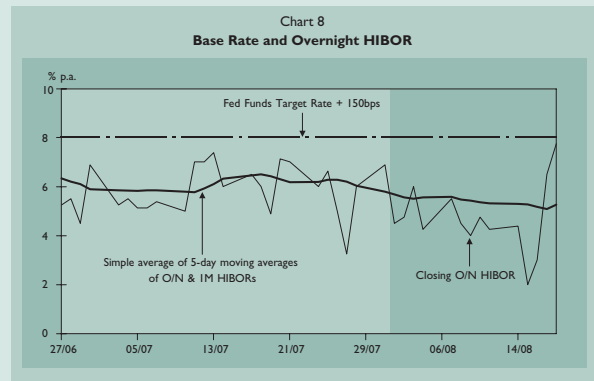
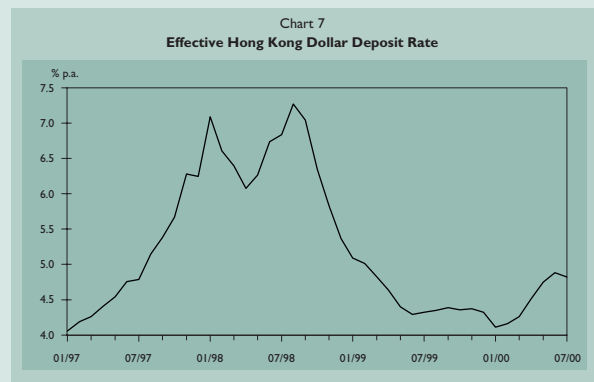


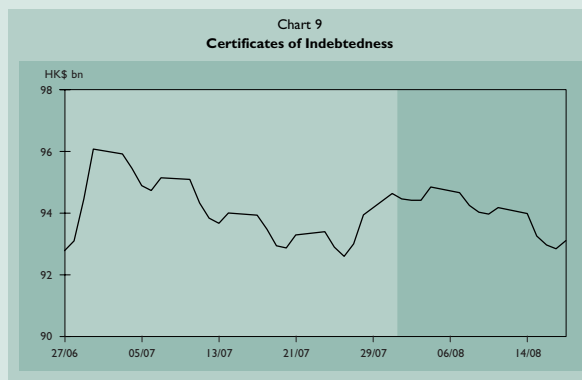
Table 2  
Monetary Base

(HK\$ bn)	1-Aug	18-Aug
CIs	94.46	93.11
Coins in Circulation	6.00	6.00
Aggregate Balance	1.12	-0.02
Outstanding EFBNs	106.10	106.64
Monetary Base	207.68	205.72

<sup>1</sup> This is the weighted average of the interest rates on demand deposits, savings and time deposits. As the banking statistics classify deposits by remaining maturities, we have used certain assumptions regarding the maturity distribution to compute the effective deposit rate.

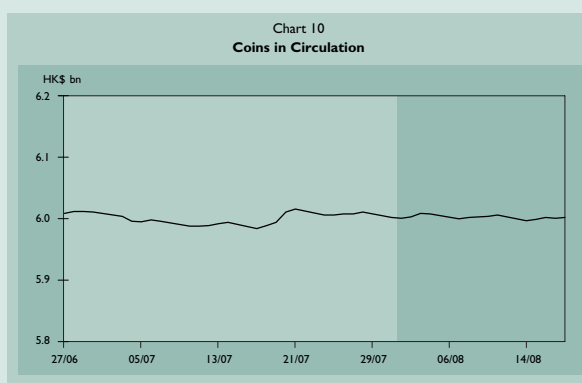
### Certificates of Indebtedness

During the reporting period, the three Note Issuing Banks (NIBs) redeemed a total of HK\$1.53 bn worth of Certificates of Indebtedness (CIs) in exchange of US\$0.2 bn. As a result, **the outstanding amount of CIs decreased** from HK\$94.64 bn at the end of the last reporting period to HK\$93.11 bn on 18 August. (Chart 9).



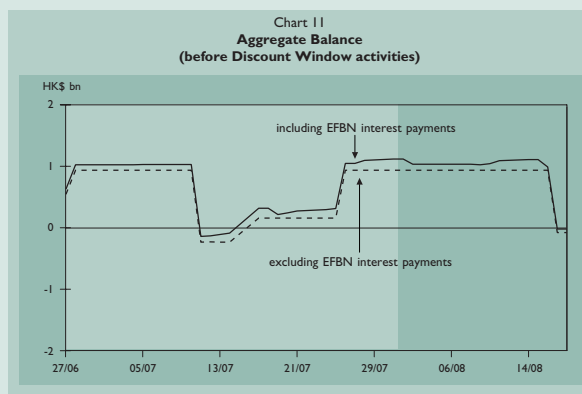
### Coins

The total amount of **coins in circulation remained at HK\$6 bn** during the period (Chart 10).



### Aggregate Balance

The Aggregate Balance remained stable at around HK\$1 bn in the first two weeks of the reporting period. It then shrank to a negative level of HK\$0.02 bn on 17 August, as the HKMA bought a total of HK\$1.01 bn under the Convertibility Undertaking on 15 August for value on 17 August (Table 3 and Chart 11).



During the period, a **total of HK\$0.31 bn of interest payments on Exchange Fund paper were made**. Taking into account the interest payments carried forward from the last reporting period, **an additional HK\$0.44 bn (market value) of Exchange Fund paper was issued to absorb these interest payments**.

Table 3  
HKMA Hong Kong Dollar/US Dollar  
Foreign Exchange Transactions\*  
(1 Aug – 20 Aug)

Trade Date	Net Hong Kong Dollar Purchase (+) / Sale (-) (HK\$ mn)
15 Aug	+1,014
<b>Total</b>	<b>+1,014</b>

\* Foreign exchange transactions may be due for settlement today, on the next business day, or the day after, at which point they would affect the Aggregate Balance.

### Outstanding Exchange Fund Bills and Notes

During the reporting period, the market value of outstanding Exchange Fund paper increased slightly from HK\$106.10 bn to HK\$106.64 bn. The increase was mainly a result of additional net issues (referred to in paragraph 14 above). All issues of Exchange Fund Bills and Notes were well received by the market (Table 4). Holdings of Exchange Fund paper by the banking sector (before Discount Window activities) decreased during the period, from HK\$94.54 bn (or 89.1% of total) on 1 August to HK\$93.52 bn (or 87.7% of total) on 18 August (Chart 12).

### Discount Window Activities

For the period as a whole, banks in total borrowed HK\$1.95 bn from the Discount Window. The bulk of the borrowing occurred towards the end of the reporting period, when liquidity conditions tightened. All of the borrowings used Exchange Fund paper as collateral (Chart 13).

A total of 13 banks borrowed overnight funds through the Discount Window (Table 5). Most banks used the Discount Window facility only infrequently.

Table 4  
Issuance of Exchange Fund Paper  
(1 Aug – 20 Aug)

	No. of Issues Launched	Over-subscription Ratio
1-month EFB	3	2.53-4.31
3-month EFB	3	2.68-3.61
6-month EFB	1	5.14
12-month EFB	1	7.91
2-year EFN	1	8.15

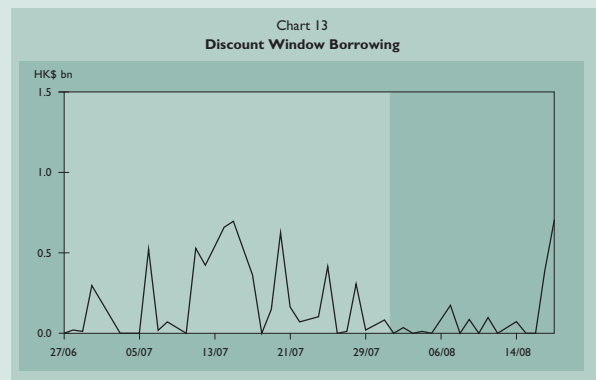
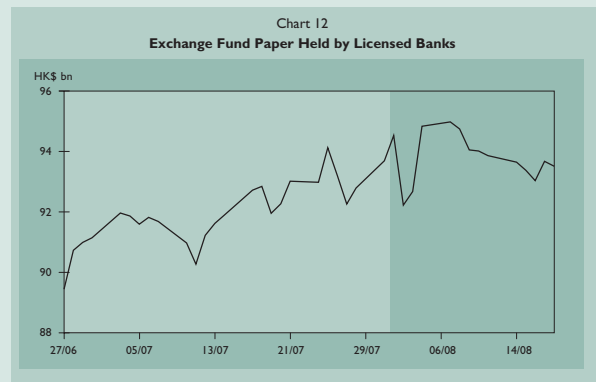
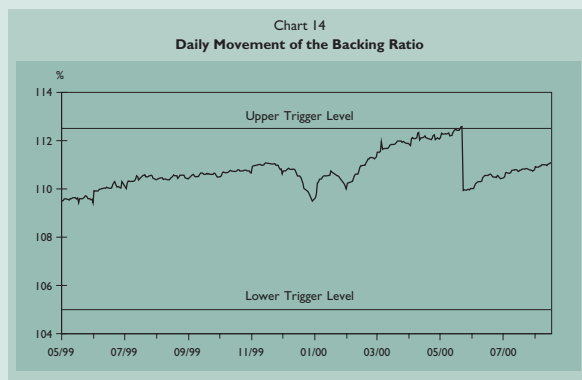


Table 5  
Frequency of Individual Bank's  
Access to the Discount Window  
(1 Aug – 20 Aug)

Frequency of Using Discount Window	No. of Banks
1	8
2	4
3	1
4	0
>4	0
<b>Total</b>	<b>13</b>

## Backing Portfolio

Along with the decrease in CIs outstanding and the Aggregate Balance, backing assets fell accordingly. Nevertheless, the decline in backing assets was more moderate than that of the Monetary Base, partly due to positive net interest income effect. As a result, **the backing ratio increased from 110.76% on 1 August to 111.07% on 18 August** (Chart 14). Under the linked exchange rate system, although 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. 🌀



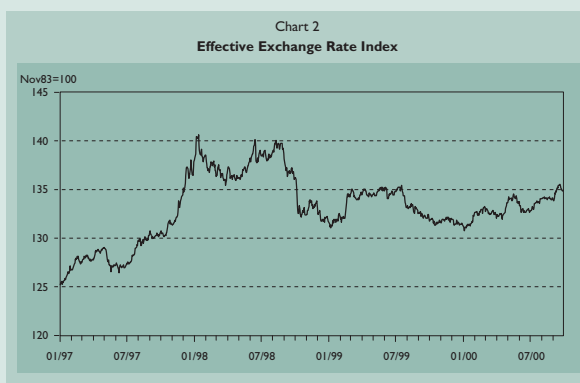
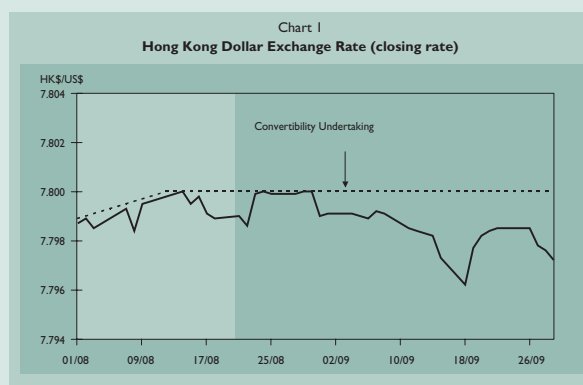
## REPORT ON CURRENCY BOARD OPERATIONS (21 AUGUST - 30 SEPTEMBER 2000)

The market exchange rate for the Hong Kong dollar moved between 7.7962 and 7.8000 during the reporting period. The Convertibility Undertaking was triggered at the end of August, and the resultant shrinkage in interbank liquidity led to a firming of local interest rates. Amid tight liquidity conditions, the exchange rate strengthened during the first half of September. At the end of the reporting period, the exchange rate closed at 7.7972, 28 pips stronger than the convertibility rate of 7.8000. The monetary base rose from HK\$205.91 bn to HK\$208.92 bn during the reporting period. In accordance with the Currency Board principle, changes in the monetary base were fully matched by corresponding changes in foreign reserves.

### Hong Kong Dollar Exchange Rate

The Hong Kong dollar exchange rate stayed around 7.8000 in late August, but strengthened slightly in September. Against a virtually zero Aggregate Balance, the HKMA sold a total of HK\$0.78 bn on 23 August in response to bank offers. The sale led to some market guesses that the HKMA was unwilling to see a significant strengthening of the exchange rate. Sale of Hong Kong dollars increased, and the exchange rate eased to around 7.8000 in late August. On 30 August, the HKMA bought a total of HK\$1.95 bn under the Convertibility Undertaking. The Aggregate Balance dipped into negative territory accordingly.

On the back of tight interbank liquidity, the exchange rate started to strengthen in early September. Meanwhile, partly related to the IPO of the MTRC, demand for Hong Kong dollar assets increased. Against a strengthening of the exchange rate, the HKMA sold a total of HK\$1.33 bn on 15 and 18 September in response to bank offers, restoring the Aggregate Balance to positive. Nevertheless, the exchange rate continued to strengthen and reached 7.7962 on 18 September. The HKMA, again in response to bank offers, sold another HK\$0.23 bn on 19 September, further increasing the level of the Aggregate Balance. The exchange rate then eased briefly, but strengthened again in late September, amid increased demand for Hong Kong dollar assets, believed to be partly equity-related. It closed at 7.7972 on 29 September, 28 pips stronger than the convertibility rate of 7.8000 (Chart 1 and Chart 2).



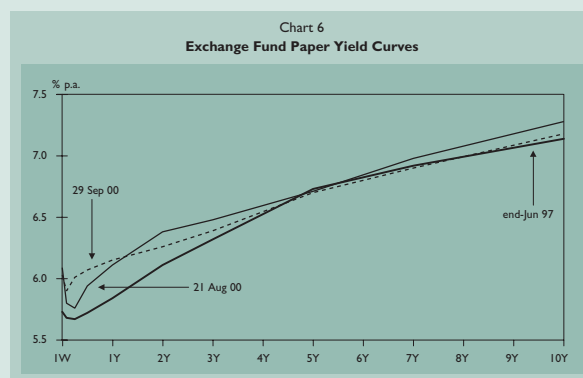
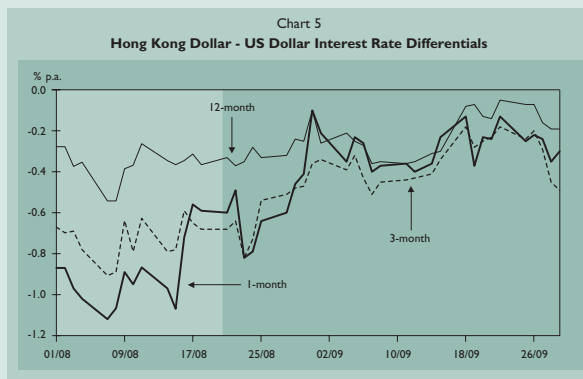
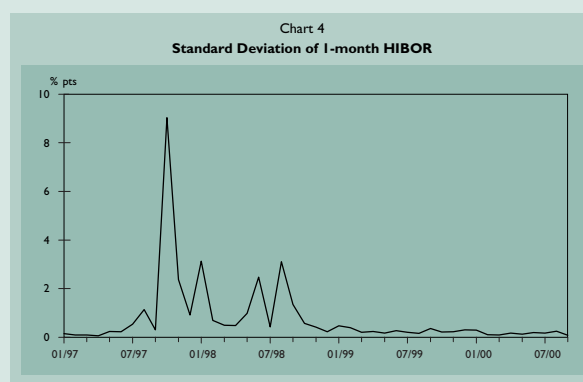
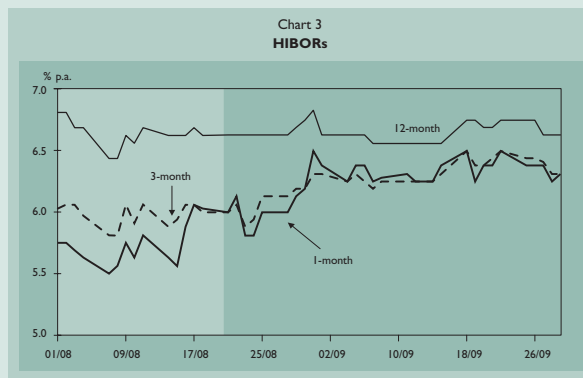
## Interest Rates

Interbank interest rates firmed during the period, partly due to tight liquidity conditions. 1-month HIBOR rose from 6.00% to 6.50% in late August, as the Aggregate Balance was forecasted to fall to a negative level. With the Balance staying in negative territory in the first half of September, O/N HIBOR stayed close to the Base Rate (Chart 8). However, 1-month HIBOR remained stable, and moved within a narrow range between 6.25% and 6.50%. Probably reflecting increased demand for Hong Kong dollar assets, 1-month HIBOR eased marginally towards the end of September. **3-month HIBOR** closely tracked the movement of 1-month HIBOR, **rising from 6.00% to 6.31%**, while **12-month HIBOR remained stable and closed at 6.63%** at the end of the reporting period (Chart 3).

Notwithstanding changes in the Aggregate Balance (Chart 11), **interest rate volatility** measured in terms of the standard deviation of 1-month HIBOR **decreased** from 0.25 percentage points in August to 0.08 percentage points in September (Chart 4). This in part reflects the effectiveness of the Discount Window in cushioning interest rate volatility.

Reflecting upward movements of the Hong Kong dollar interbank interest rates, **the negative spreads between Hong Kong dollar and US dollar interbank rates narrowed**. The negative spread in respect of 1-month rates, which stood at -60 bp at the beginning of the reporting period, narrowed to -10 bp at one point (31 August). It widened again in late September, as demand for Hong Kong dollar assets increased. At the end of the reporting period, the spread stood at -30 bp. **The negative spread in terms of 12-month money narrowed** from -33 bp to -19 bp during the period (Chart 5).

The **Exchange Fund paper yield curve flattened** (Chart 6). In line with the firming of short-term interbank interest rates, yields on short-term Exchange Fund paper rose. Longer-term yields, however, declined during the reporting period. In respect of 5-year and 10-year Exchange Fund Notes, yields decreased by 1 bp and 10 bp, to 6.70% and 7.18%





respectively. **The yield spread between 5-year Exchange Fund paper and US Treasuries widened by 22 bp to 76 bp, while the yield spread between 10-year Exchange Fund paper and US Treasuries narrowed by 12 bp to 130 bp on 29 September (Table 1).**

The **Savings Rate and Best Lending Rate remained unchanged.** The weighted average deposit rate offered by 44 major authorised institutions for 1-month time deposits (which are outside the Interest Rate Rules) increased from 5.63% on 11 August to 6.18% on 29 September. The effective deposit rate<sup>1</sup> decreased from 4.82% in July to 4.75% in August (Chart 7).

#### Base Rate

The **Base Rate remained unchanged at 8.0%** (150 basis points above the US Fed Funds Target Rate) (Chart 8).

#### Monetary Base

The **monetary base**, which comprises the outstanding amount of Certificates of Indebtedness, coins in circulation, the Aggregate Balance and the outstanding amount of Exchange Fund Bills and Notes, **increased from HK\$205.91 bn on 21 August to HK\$208.92 bn on 29 September** (Table 2). Movements in individual components are discussed below.

Table 1  
Yield Spreads between Exchange Fund Paper and US Treasuries (basis points)

	27-Jun-97	21-Aug-00	29-Sep-00
3-month	56	-60	-32
1-year	21	-11	-2
3-year	3	16	36
5-year	27	54	76
10-year	54	142	130

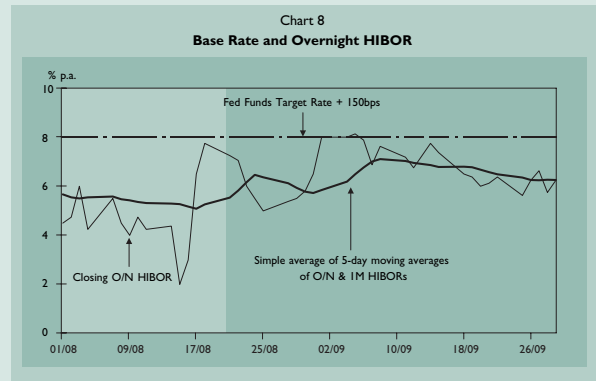
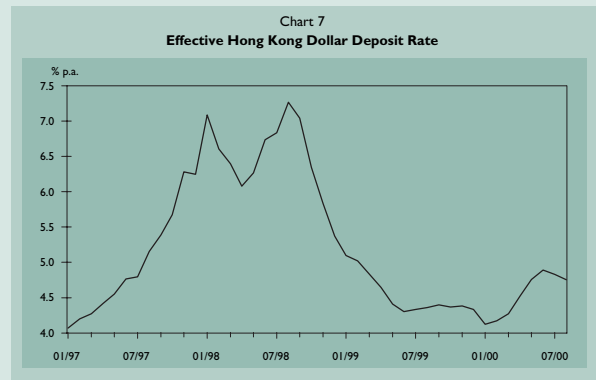


Table 2  
Monetary Base

(HK\$ bn)	21-Aug	29-Sep
CIs	93.21	95.01
Coins in Circulation	5.99	6.08
Aggregate Balance	-0.00	0.43
Outstanding EFBNs	106.71	107.41
Monetary Base	205.91	208.92

<sup>1</sup> This is the weighted average of the interest rates on demand deposits, savings and time deposits. As the banking statistics classify deposits by remaining maturities, we have used certain assumptions regarding the maturity distribution to compute the effective deposit rate.

### Certificates of Indebtedness

The three Note Issuing Banks (NIBs) submitted to the HKMA a total of US\$0.28 bn in exchange for HK\$2.16 bn worth of Certificates of Indebtedness (CIs) between 21 August and 11 September. They then redeemed a total of HK\$2.91 bn in exchange for US\$0.37 bn between 12 and 26 September. Thereafter, probably reflecting an increase in public demand for banknotes ahead of a long weekend, the NIBs submitted a total of US\$0.34 bn in exchange for HK\$2.65 bn worth of CIs between 27 and 29 September. As a result, **the outstanding amount of CIs increased from HK\$93.11 bn at the end of the last reporting period to HK\$95.01 bn on 29 September.** (Chart 9).

### Coins

The total amount of **coins in circulation increased slightly from HK\$6 bn to HK\$6.08 bn** during the period (Chart 10).

### Aggregate Balance

**This period saw more frequent changes in the Aggregate Balance.** Following the sale of HK\$0.78 bn by the HKMA in response to bank offers on 23 August, the Aggregate Balance increased to HK\$0.79 bn. Thereafter, as the HKMA bought a total of HK\$1.95 bn under the Convertibility Undertaking on 30 August, the Aggregate Balance shrank to a negative level of HK\$1.15 bn on 1 September, and remained negative for about two weeks. Tight liquidity conditions induced banks to sell US dollars to the HKMA for Hong Kong dollars. We sold a total of HK\$1.33 bn on 15 and 18 September, restoring the Aggregate Balance to a positive level of HK\$0.22 bn on 18 September. Another HK\$0.23 bn was sold on 19 September, further increasing the Aggregate Balance to HK\$0.49 bn on 19 September (Table 3 and Chart 11).

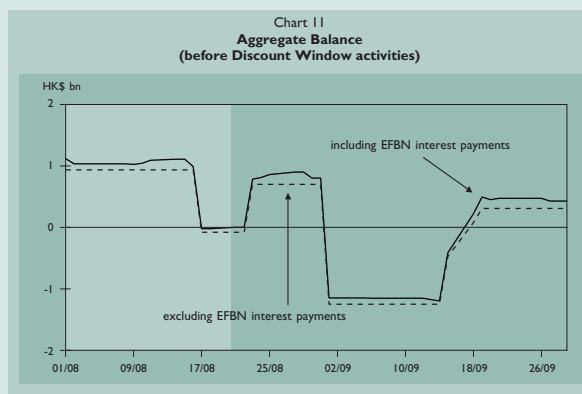
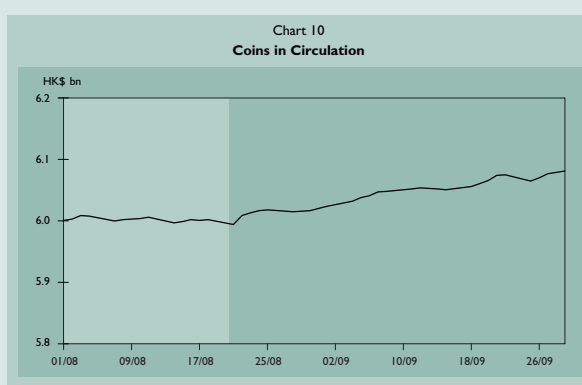
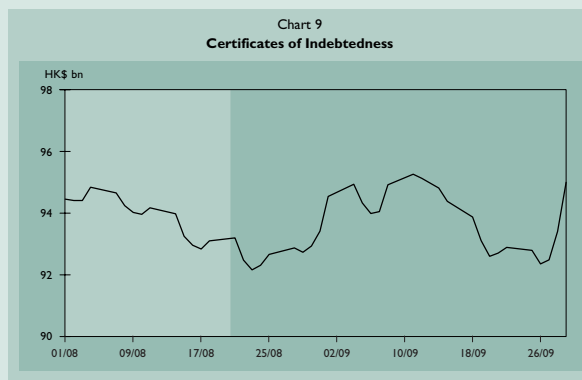


Table 3  
HKMA Hong Kong Dollar/US Dollar  
Foreign Exchange Transactions\*  
(21 Aug – 30 Sep)

Trade Date	Net Hong Kong Dollar Purchase (+) / Sale (-) (HK\$ mn)
23 Aug	-780
30 Aug	+1,950
15 Sep	-780
18 Sep	-546
19 Sep	-234
<b>Total</b>	<b>-390</b>

\* Foreign exchange transactions may be due for settlement today, on the next business day, or the day after, at which point they would affect the Aggregate Balance.

During the period, a total of HK\$0.80 bn of interest payments on Exchange Fund paper were made, while an additional HK\$0.74 bn (market value) of Exchange Fund paper was issued to absorb these interest payments. The remaining amount was carried forward in the Aggregate Balance.

#### Outstanding Exchange Fund Bills and Notes

During the reporting period, the market value of outstanding Exchange Fund paper increased from HK\$106.71 bn to HK\$107.41 bn. The increase was mainly a result of additional net issues (refer to paragraph 13 above). All issues of Exchange Fund Bills and Notes were well received by the market (Table 4). Holdings of Exchange Fund paper by the banking sector (before Discount Window activities) increased during the period, from HK\$93.60 bn (or 87.7% of total) on 21 August to HK\$95.82 bn (or 89.2% of total) on 29 September (Chart 12).

#### Discount Window Activities

With the Aggregate Balance staying at a low or negative level, Discount Window activities increased. For the period as a whole, banks in total borrowed HK\$22.49 bn from the Discount Window, compared with HK\$1.95 bn in the preceding period. Most of the borrowing occurred during the first half of September, when the Aggregate Balance was negative. All except one of the borrowings used Exchange Fund paper as collateral (Chart 13).

A total of 41 banks borrowed overnight funds through the Discount Window (Table 5). Most banks used the Discount Window facility only infrequently.

Table 4  
Issuance of Exchange Fund Paper  
(21 Aug – 30 Sep)

	No. of Issues Launched	Over-Subscription Ratio
1-month EFB	3	3.50-5.70
3-month EFB	4	3.12-3.45
6-month EFB	2	4.21-5.35
12-month EFB	1	10.26
5-year EFN	1	3.65

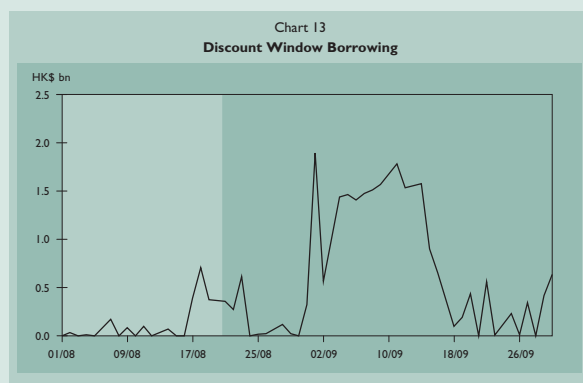
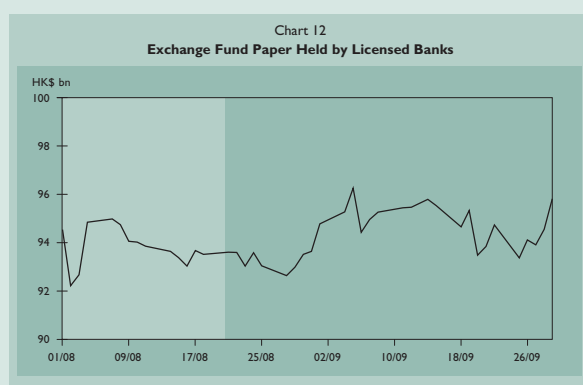


Table 5  
Frequency of Individual Bank's  
Access to the Discount Window  
(21 Aug – 30 Sep)

Frequency of Using Discount Window	No. of Banks
1	20
2	7
3	6
4	2
>4	6
<b>Total</b>	<b>41</b>

## Backing Portfolio

The value of backing assets expanded more than the increase in the monetary base, partly due to positive net interest income. As a result, **the backing ratio increased from 111.08% on 21 August to 111.47% on 30 September** (Chart 14). Under the linked exchange rate system, although 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. 