

REPORT ON CURRENCY BOARD OPERATIONS FOR THE PERIOD 24 JUNE - 30 JULY 1999

(Since the Exchange Fund Advisory Committee Sub-Committee on Currency Board Operations did not meet in August, there is no Sub-Committee record for this month.)

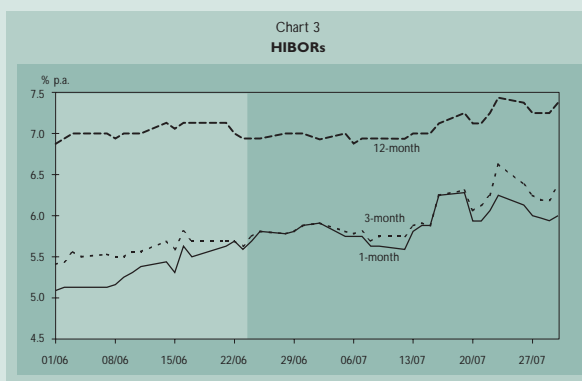
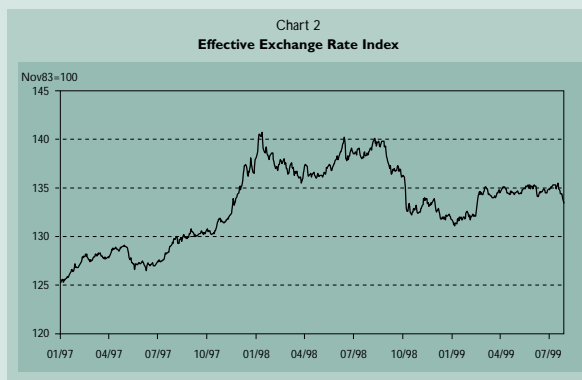
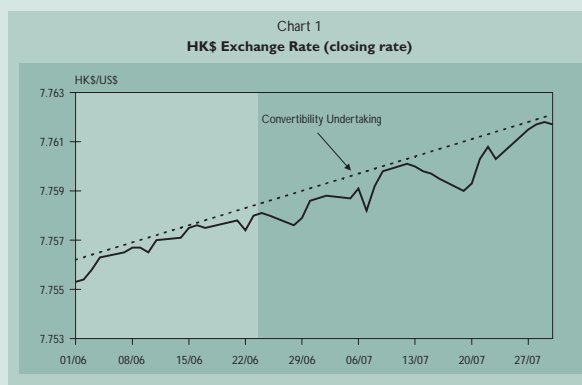
During the reporting period, the market exchange rate for the HK dollar eased from 7.7581 to 7.7617, in parallel to the movement of the convertibility rate in respect of the Aggregate Balance. Some outflows of funds were seen in mid-July, as a result of which the Aggregate Balance was reduced to a relatively low level, and interbank interest rates firmed up. The monetary base rose marginally from HK\$193.08 bn to HK\$195.55 bn, mainly due to an increase in Certificates of Indebtedness. 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 HK dollar exchange rate eased slightly from 7.7581 to 7.7617 during the reporting period, broadly matching the movement of the convertibility rate in respect of the Aggregate Balance. Reflecting some outflows of funds in mid-July, the exchange rate once weakened to the level of the convertibility rate (at 7.7603) on 12 July, triggering the Convertibility Undertaking. The flow of funds then reversed as interbank rates rose in response to the shrinkage of the Aggregate Balance. The exchange rate rebounded to 7.7590 on 19 July before easing gradually again alongside the convertibility rate. On 30 July, the HK dollar exchange rate closed at 7.7617, 4 pips stronger than the convertibility rate of 7.7621 (Chart 1 and Chart 2).

Interest Rates

Interbank interest rates eased marginally in late June and early July. 1-month HIBOR fell from 5.69% on 24 June to 5.59% on 12 July. With a relatively small Aggregate Balance and the tension across the Taiwan Straits, interbank rates firmed in mid-July. 1-month HIBOR rose to a peak of 6.28% on 19 July before easing to 6.00% at the end of the period. 12-month HIBOR increased less rapidly during the period under review, from 6.88% on 6 July to a peak of 7.44% on 23 July, before easing to 7.38% at the end of the period (Chart 3).



Notwithstanding these movements, **interest rate volatility**, measured in terms of the standard deviation of 1-month HIBOR, **decreased** slightly from 0.27 percentage points in June to 0.20 percentage points in July (Chart 4).

Reflecting higher HK dollar interest rates, **the differential between HK dollar and US dollar interest rates widened in the second half of the period**. The spread in terms of the one-month rate rose from 39 bp on 12 July to 112 bp on 19 July. As HK dollar interest rates subsequently eased, the spread narrowed to 79 bp on 30 July (Chart 5).

In part reflecting an increase in banks' demand for Exchange Fund paper (see paragraph 14), yields on such paper eased moderately during the period under review. The yields on 5-year and 10-year Exchange Fund Notes fell to 6.88% and 7.48% respectively on 30 July, 34 bp and 27 bp lower than their respective levels at the beginning of the period (Chart 6). Yield spreads between 5-year and 10-year Exchange Fund paper and their US counterparts narrowed from 122 bp and 162 bp to 103 bp and 150 bp respectively (Table 1).

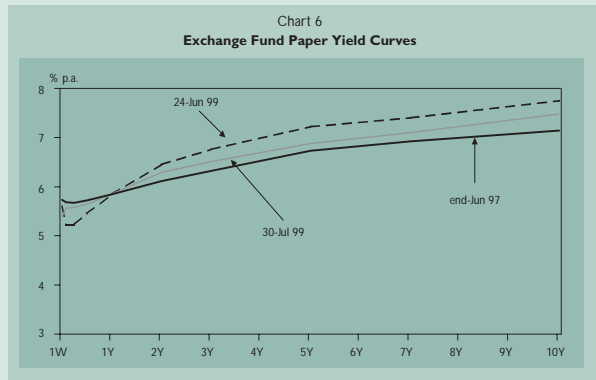
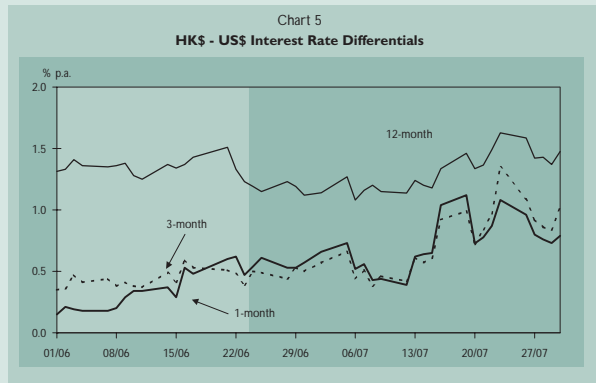
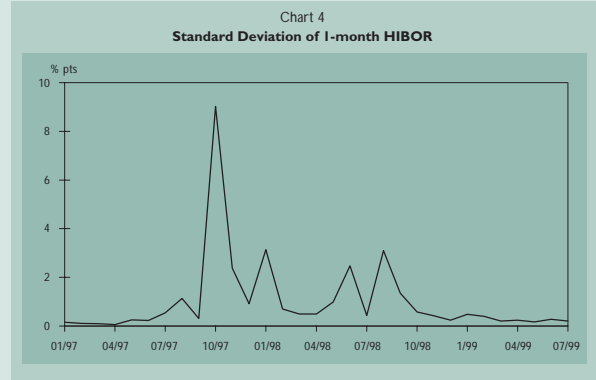
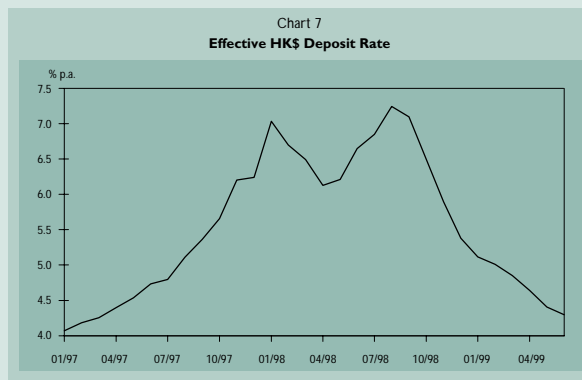


Table 1
Yield Spreads between Exchange Fund Paper and US Treasuries (basis points)

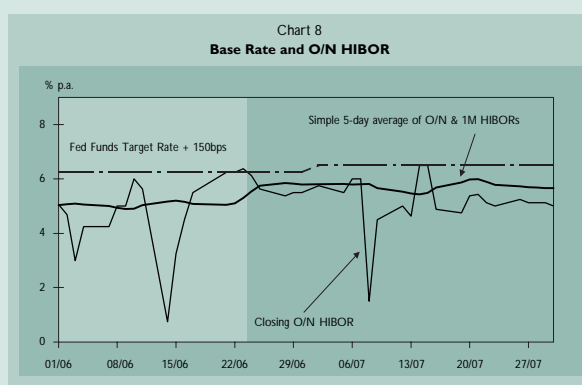
	27-Jun-97	24-Jun-99	30-Jul-99
3-month	56	48	82
1-year	21	94	70
3-year	3	82	69
5-year	27	122	103
10-year	54	162	150

Despite a 25 bp hike in the US Fed Funds Target Rate, **the savings rate under HKAB's Interest Rate Rules remained unchanged** at 3.5% during the period. The best lending rate offered by major banks also remained unchanged at 8.25%. The weighted average deposit rate offered by 44 major authorised institutions for 1-month time deposits (which are outside the Interest Rate Rules) rose from 5.74% on 25 June to 6.07% on 23 July. Meanwhile, the effective deposit rate (taking into account the maturity of deposits) fell from 4.40% in May to 4.30% in June (Chart 7).



Base Rate

Following the 25 bp rise in the US Fed Funds Target Rate on 30 June, **the Base Rate was adjusted upwards on 2 July by 25 bp to 6.50%** (150 basis points above the US Fed Funds Target Rate), where it stayed for the rest of the reporting period (Chart 8).



Monetary Base

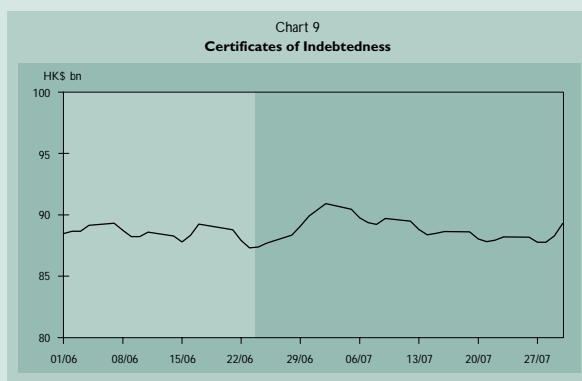
The monetary base, which comprises the outstanding amount of Certificates of Indebtedness, coins in circulation, the Aggregate Balance and the outstanding amount of Exchange Fund Bills and Notes, **increased marginally from HK\$193.08 bn on 24 June to HK\$195.55 bn on 30 July** (Table 2). Movements of individual components are discussed below.

Table 2
Monetary Base

(HK\$ bn)	24-Jun	30-Jul
CIs	87.38	89.30
Coins in Circulation	5.96	5.92
Aggregate Balance	0.52	0.43
Outstanding EFBNs	99.22	99.91
Monetary Base	193.08	195.55

Certificates of Indebtedness

From 24 June to 2 July, the three Note Issuing Banks (NIBs) submitted to the Exchange Fund a total of US\$0.45 bn in exchange for an increase in Certificates of Indebtedness (CIs) from HK\$87.38 bn to HK\$90.92 bn. Thereafter, the NIBs redeemed a total of HK\$1.62 bn of CIs in exchange for US\$0.21 bn. Thus, over the whole period, **there was a small net increase in the outstanding amount of CIs, to HK\$89.30 bn** (Chart 9).



Coins

The total amount of **coins in circulation** decreased slightly from **HK\$5.96 bn** on 24 June to **HK\$5.92 bn** on 30 July (Chart 10).

Aggregate Balance

Mainly reflecting a net outflow of funds, the Aggregate Balance (before Discount Window activities) decreased from HK\$0.52 bn on 24 June to HK\$0.43 bn on 30 July (Chart 11).

The Aggregate Balance had dropped to a negative level of HK\$1.73 bn towards the end of the previous review period. Consequently, interest rates tightened and the flow of funds was reversed, restoring the Aggregate Balance to HK\$0.52 bn on 24 June. However, rumours of a change in the Mainland's leadership triggered some outflows of funds in late June and early July. **The HKMA bought HK\$0.68 bn on 30 June and 1 July under the Convertibility Undertaking.** Further outflows occurred **on 12 July** amid rumours of RMB devaluation. In response, **the HKMA bought HK\$2.17 bn under the Convertibility Undertaking, thus sending the Aggregate Balance to the negative level of HK\$0.36 bn on 14 July.** As the flow of funds subsequently reversed on the back of an increase in HK dollar interest rates, **the Aggregate Balance rebounded to HK\$0.43 bn on 16 July and stayed at around that level for the rest of the period** (Table 3).

During the period, a total of **HK\$0.57 bn interest payments on Exchange Fund Paper** were made, while an additional **HK\$0.47 bn (market value) of Exchange Fund paper** was issued to absorb the interest payments. The remaining amount was carried forward in the Aggregate Balance.

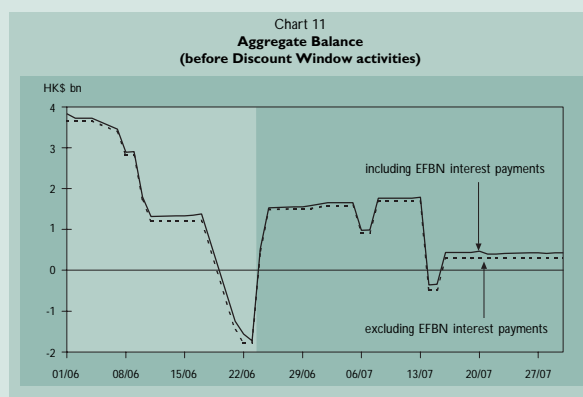
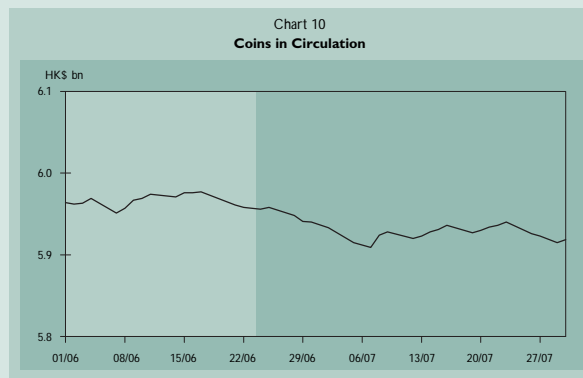


Table 3
HKMA HK\$/US\$ FX Transactions*
(24 June-30 July)

Trade Date	Net HK\$ purchase (+) / sale (-) (HK\$ mn)
25 June	-1,008
28 June	-23
30 June	613
1 July	62
2 July	-78
8 July	-776
12 July	2,173
16 July	-776
Total	187

* FX 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 marginally from HK\$99.22 bn to HK\$99.91 bn.** The increase was a result of the additional net issue (referred to in paragraph 13 above) and valuation effects due to a decline in yields on Exchange Fund paper (see paragraph 5). All issues of Exchange Fund Bills and Notes were well received by the market (Table 4). Holdings of Exchange Fund paper by licensed banks before Discount Window activities (in terms of market value) increased from HK\$77.01 bn (or 77.6% of total) on 24 June to HK\$81.19 bn (or 81.3% of total) on 30 July (Chart 12). Some banks may have increased their holding of Exchange Fund paper to prepare for potential pressure in the money market arising out of Year 2000 positioning.

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. Bank's access is unrestricted in respect of borrowings collateralized against Exchange Fund paper. For the period under review, **banks borrowed a total of HK\$10.23 bn** from the HKMA through the Discount Window. Of the total, an amount of HK\$2.87 bn was borrowed by banks during 14-15 July when the Aggregate Balance fell into the negative territory. Other than this period, the daily amount of Discount Window borrowing was generally less than HK\$500 mn (Chart 13).

A total of 41 banks borrowed overnight liquidity through the Discount Window (Table 5). Most banks used the Discount Window facility only infrequently and only four of them borrowed more than 4 times.

An overwhelming majority (HK\$10.08 bn or 98.5%) of the borrowings made during the period were collateralized against Exchange Fund Bills and Notes. There were 9 occasions on which banks borrowed an amount exceeding 50% of their holdings of Exchange Fund paper.

Table 4
Issuance of EF paper
(24 June-30 July)

	No. of issues launched	Over-subscription ratio
1-month EFB	3	2.51-4.07
3-month EFB	5	1.00-2.26
6-month EFB	3	2.45-3.00
12-month EFB	1	8.68
3-year EFN	1	5.60

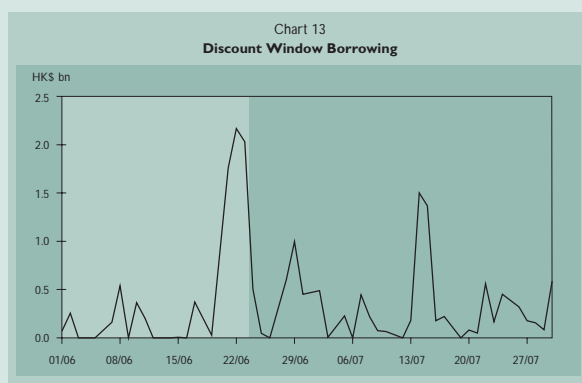
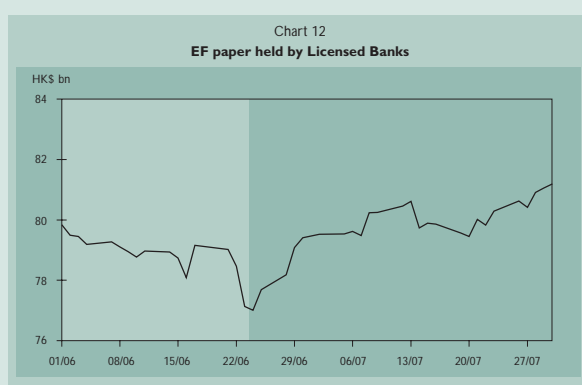



Table 5
Frequency of Individual Bank's
Access to the Discount Window
(24 June-30 July)

Frequency of using Discount Window	No. of banks
1	20
2	10
3	4
4	3
>4	4
Total	41

Backing Portfolio

The backing ratio increased marginally from 110.16% on 24 June to 110.44% on 30 July, attributable mainly to the investment returns on the backing assets. 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 HK dollar exchange rate. 

RECORD OF DISCUSSION OF THE MEETING OF THE EXCHANGE FUND ADVISORY COMMITTEE SUB-COMMITTEE ON CURRENCY BOARD OPERATIONS HELD ON 3 SEPTEMBER 1999

(Approved for Issue by the Exchange Fund Advisory Committee on 23 September 1999)

Currency Board Operations for the Period 2 - 20 August 1999 Report on Selected Millennium Indicators


The Sub-Committee noted that during the period under review the market exchange rate for the Hong Kong dollar had eased from 7.7620 to 7.7641, which broadly matched the movement of the convertibility rate in respect of the Aggregate Balance. Escalating tensions across the Taiwan Straits coupled with renewed rumours of an RMB devaluation in August had contributed to a weakening of the exchange rate and a triggering of the Convertibility Undertaking in the first and third weeks of August. This had sent the Aggregate Balance briefly to negative levels. Members noted that, influenced by expectations of a rise in US rates, interbank interest rates had shown a general increase, but interest rate volatility had slightly decreased. The Sub-Committee observed that the operations of the Currency Board system during the period under review had demonstrated that the system was working well. The Sub-Committee further noted that changes in the Monetary Base throughout the period had been fully matched by corresponding changes in foreign reserves, in accordance with the rules of the Currency Board system. The report on Currency Board operations for the period under review is at [Annex A](#).

Liquidity Arrangements for the Money Market in the Year 2000 Context

The Sub-Committee considered proposals to increase the supply of liquidity to the money market to relieve possible market tightness arising out of Year 2000 positioning. These proposals provided an elaboration on the general strategy discussed by the Sub-Committee at its meeting in July. The proposals included a term repo facility to licensed banks and an enlarged discount window. The Sub-Committee gave its support to these proposals. It also considered that the exceptions to the Currency Board rules were acceptable in the special circumstances of the Year 2000 problem. The Sub-Committee advised that banks should be encouraged first to resort to their own liquidity arrangements as far as possible. The Sub-Committee further advised that, following the Year 2000 event, the unwinding of any special liquidity arrangements under the proposed measures should be clearly reflected in the reports on Currency Board operations early in 2000.

The Sub-Committee noted an information paper on selected market indicators reflecting the Year 2000 positioning of market participants. It was noted that the indicators would be updated regularly for the information of the Sub-Committee.

Recent Developments in the Argentinian Currency Board System

The Sub-Committee was briefed by Mr John Greenwood on recent developments in the Argentinian Currency Board system. 

REPORT ON CURRENCY BOARD OPERATIONS (2 - 20 AUGUST 1999)

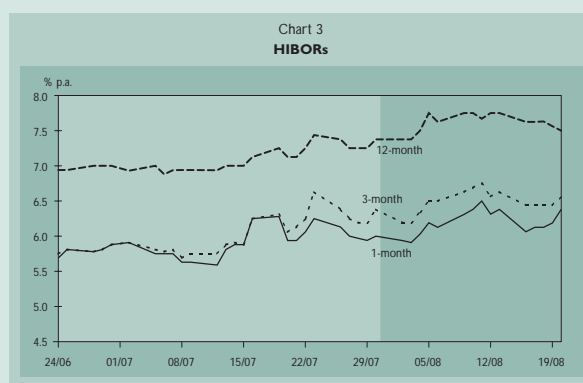
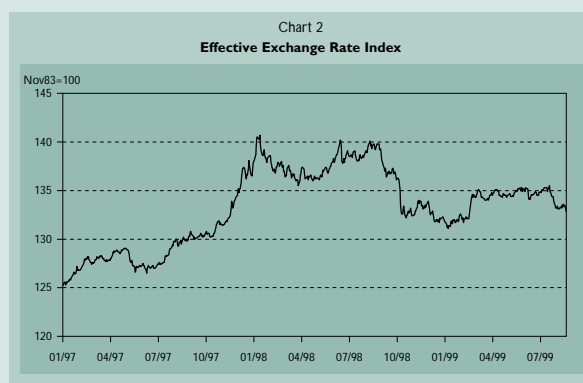
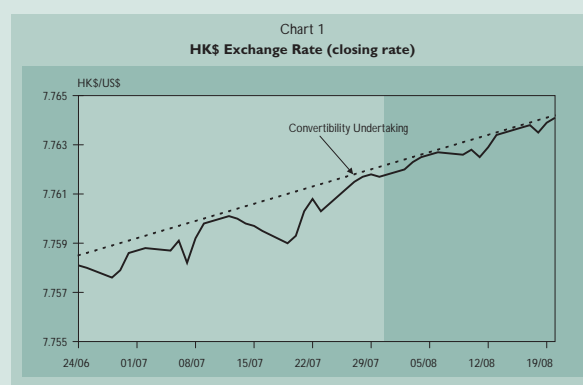
During the reporting period, the market exchange rate for the HK dollar eased from 7.7620 to 7.7641, in parallel to the movement of the convertibility rate in respect of the Aggregate Balance. Some outflows of funds were seen in the first and third weeks of August, as a result of which the Aggregate Balance was reduced to relatively low levels, and interbank interest rates firmed up. The monetary base decreased marginally from HK\$196.54 bn to HK\$194.77 bn, mainly due to the redemption of Certificates of Indebtedness and a fall in the Aggregate Balance. 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 HK dollar exchange rate eased slightly from 7.7620 to 7.7641 during the reporting period, broadly matching the movement of the convertibility rate in respect of the Aggregate Balance. Amid the escalating tension across the Taiwan Straits and renewed rumours of RMB devaluation in early August, the exchange rate weakened towards the convertibility rate (at 7.7628) on 6 August, triggering the Convertibility Undertaking. Following a tightening of interbank liquidity, the exchange rate rebounded marginally to 7.7625 on 11 August. In the third week of August, the HK dollar exchange rate touched the convertibility rate again as some outflows of funds resurfaced. Under the Convertibility Undertaking, the HKMA bought HK dollars, tightening interbank liquidity. The HK dollar exchange rate closed at 7.7641 at the end of the reporting period, 1 pip stronger than the convertibility rate of 7.7642 (Chart 1 and Chart 2).

Interest Rates

Interbank interest rates moved on a general uptrend in the reporting period. Amid expectations of another US interest rate hike at the August FOMC meeting and a minor outflow of funds in early August, 1-month HIBOR edged up to a peak of 6.50% on 11 August. When the Aggregate Balance subsequently increased (to HK\$0.82 bn) on 12 August alongside a reversal of fund outflows, 1-month HIBOR eased to 6.06% on 16 August before firming again to close at 6.38% on 20 August. 12-month HIBOR increased, albeit at a less rapid pace, during the period under review, from 7.38% on 2 August to a peak of 7.75% on 5 August, before easing to 7.50% at the end of the period (Chart 3).



Notwithstanding these movements, **interest rate volatility**, measured in terms of the standard deviation of 1-month HIBOR (Chart 4), **decreased** slightly from 0.20 percentage points in July to 0.18 percentage points in August (up to 20 August).

The differential between HK dollar and US dollar interest rates widened in the reporting period. The spread in terms of the one-month rate rose from 70 bp on 2 August to a peak of 121 bp on 11 August before narrowing to 75 bp on 16 August. The spread then widened again to 108 bp on 20 August alongside a tightening of interbank liquidity in the third week of August (Chart 5).

Yields on shorter-term Exchange Fund bills increased, while yields on longer-term Exchange Fund paper eased slightly during the period under review. The yields on 10-year Exchange Fund notes fell marginally from 7.50% on 2 August to 7.41% on 20 August, while yields on 5-year paper remained unchanged at 6.91% during the reporting period (Chart 6). Yield spreads between 5-year Exchange Fund paper and its US counterpart increased slightly from 101 bp to 104 bp, while that of 10-year Exchange Fund paper narrowed by 7 bp to 143 bp (Table 1).

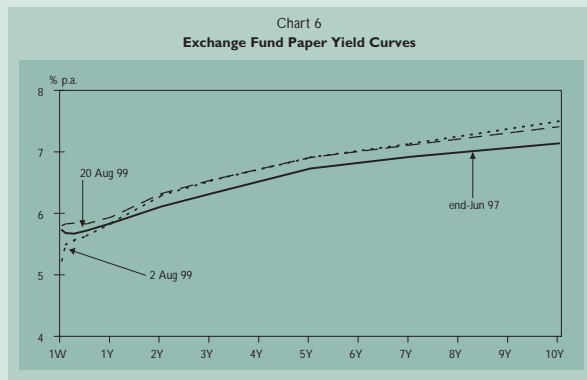
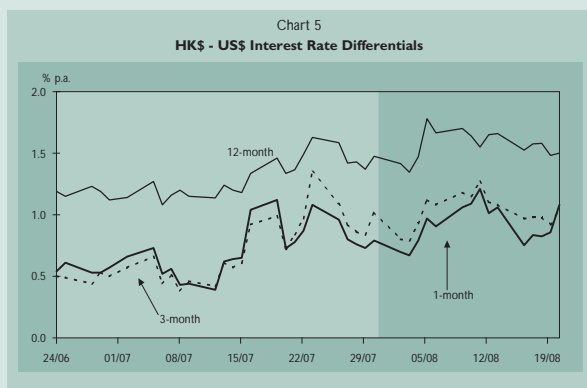
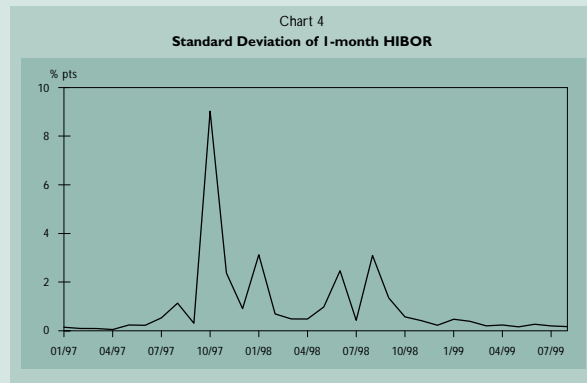
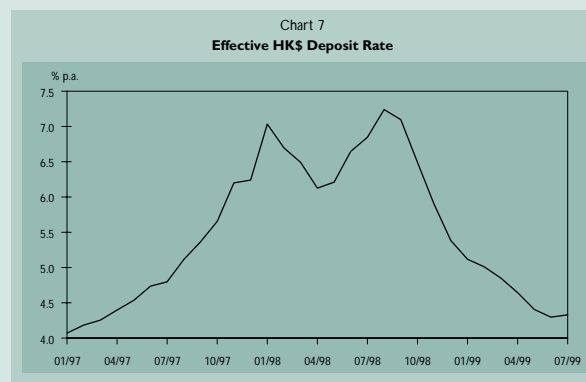


Table 1
Yield Spreads between Exchange Fund Paper and US Treasuries (basis points)

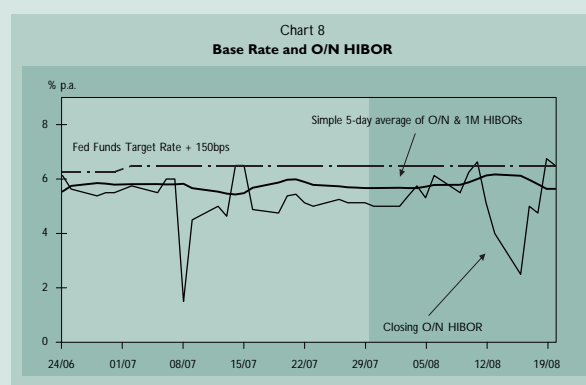
	27-Jun-97	2-Aug-99	20-Aug-99
3-month	56	76	99
1-year	21	66	70
3-year	3	76	68
5-year	27	101	104
10-year	54	150	143

The savings rate under HKAB's Interest Rate Rules and the best lending rate offered by major banks remained unchanged at 3.5% and 8.25% respectively 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) rose marginally from 6.02% on 30 July to 6.09% on 13 August. Meanwhile, the effective deposit rate (taking into account the maturity of deposits) increased slightly from 4.30% in June to 4.33% in July (Chart 7).



Base Rate

The Base Rate remained unchanged at 6.50% (150 basis points above the US Fed Funds Target Rate) throughout the reporting period (Chart 8). [Following the 25 bp rise in the US Fed Funds Target Rate on 24 August, the Base Rate was adjusted upwards on 25 August by 25 bp to 6.75%.]



Monetary Base

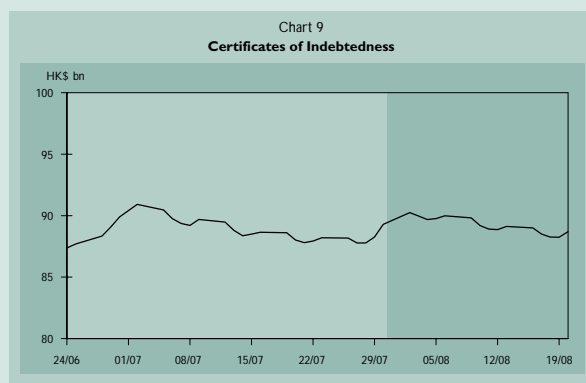
The monetary base, which comprises the outstanding amount of Certificates of Indebtedness, coins in circulation, the Aggregate Balance and the outstanding amount of Exchange Fund Bills and Notes, decreased slightly from HK\$196.54 bn on 2 August to HK\$194.77 bn on 20 August (Table 2). Movements of individual components are discussed below.

**Table 2
Monetary Base**

(HK\$ bn)	2-Aug	20-Aug
CIs	90.25	88.70
Coins in Circulation	5.91	5.94
Aggregate Balance	0.43	-0.12
Outstanding EFBNs	99.95	100.25
Monetary Base	196.54	194.77

Certificates of Indebtedness

The outstanding amount of Certificates of Indebtedness decreased from HK\$90.25 bn on 2 August to HK\$88.70 bn on 20 August. During the period, the three note-issuing banks returned to the Exchange Fund a total of HK\$1.55 bn worth of Certificates of Indebtedness (CIs) in exchange for US\$0.20 bn (Chart 9).



Coins

The total amount of **coins in circulation** increased marginally from HK\$5.91 bn on 2 August to HK\$5.94 bn on 20 August (Chart 10).

Aggregate Balance

Mainly reflecting a net outflow of funds, **the Aggregate Balance (before Discount Window activities) decreased from HK\$0.43 bn on 2 August to a negative level of HK\$0.12 bn on 20 August** (Chart 11).

Amid renewed rumours of RMB devaluation as well as escalating cross-straits tension, the HK dollar exchange rate weakened. The HKMA bought HK\$427 mn under the Convertibility Undertaking on 6 August, sending the Aggregate Balance to a negative level of HK\$0.03 bn on 10 August. Consequently, interbank interest rates firmed up and the outflows of funds reversed. The HKMA sold HK\$776 mn on 12 August in response to bank offers and the Aggregate Balance rebounded to HK\$0.82 bn. As some outflows of funds re-appeared in the third week of August, the HKMA bought HK\$233 mn and HK\$598 mn under the Convertibility Undertaking on 16 and 17 August respectively. As a result, the Aggregate Balance fell to a negative level of HK\$0.14 bn on 19 August. The Convertibility Undertaking was again triggered on 19 and 20 August with a total of HK\$931 mn bought by the HKMA (Table 3). *[As interbank liquidity tightened and interest rates firmed up, the Aggregate Balance was restored to HK\$1.67 bn on 23 August upon a reversal of fund outflows.]*

During the reporting period, **a total of HK\$0.32 bn interest payments on Exchange Fund Paper were made, while an additional HK\$0.39 bn (market value) of Exchange Fund paper was issued to absorb the interest payments.**

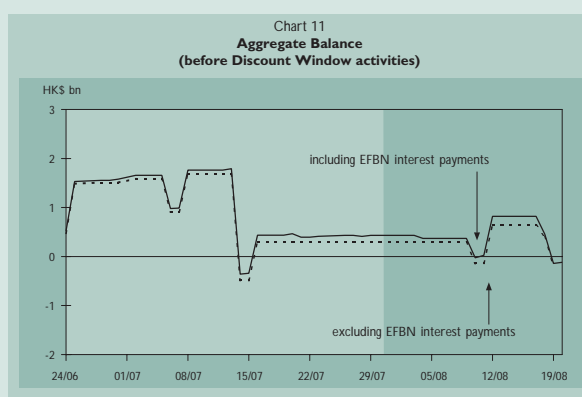
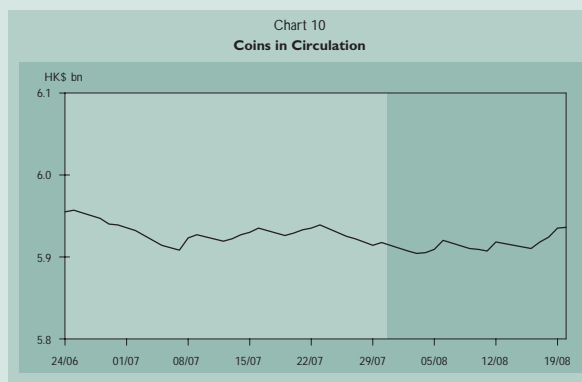


Table 3
HKMA HK\$/US\$ FX Transactions*
(2 – 20 August)

Trade Date	Net HK\$ purchase (+) / sale (-) (HK\$ mn)
6 Aug	427
12 Aug	-776
16 Aug	233
17 Aug	598
19 Aug	155
20 Aug	776
Total	1413

* FX 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 marginally from HK\$99.95 bn to HK\$100.25 bn.** The increase was mainly a result of the additional net issue (referred to in 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 licensed banks before Discount Window activities (in terms of market value) decreased slightly from HK\$81.58 bn (or 81.61% of total) on 2 August to HK\$80.96 bn (or 80.76% of total) on 20 August (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. Bank's access is unrestricted in respect of borrowings collateralised against Exchange Fund paper. During the period under review, **banks borrowed a total of HK\$4.52 bn** from the HKMA through the Discount Window. Of the total, an amount of HK\$1.69 bn was borrowed by banks during 19-20 August, when the Aggregate Balance fell into negative territory for two consecutive days. Other than this period, the daily amount of Discount Window borrowing was generally less than HK\$500 mn (Chart 13).

A total of 21 banks borrowed overnight liquidity through the Discount Window (Table 5). Most banks used the Discount Window facility only infrequently and only one of them borrowed more than 4 times.

All the borrowings made during the period were collateralised against Exchange Fund Bills and Notes. There was only one occasion on which a bank borrowed an amount exceeding 50% of its holdings of Exchange Fund paper.

Backing Portfolio


As the decrease in the value of backing assets associated with the decline in the monetary base was partly offset by the investment earnings during the reporting period, **the backing ratio increased marginally from 110.38% on 2 August to 110.55% on 20 August.** 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 HK dollar exchange rate. 

Table 4
Issuance of EF Paper
(2 – 20 August)

	No. of issues launched	Over-subscription ratio
1-month EFB	3	1.37-3.50
3-month EFB	3	0.71-1.63
6-month EFB	1	3.12
12-month EFB	1	3.97
2-year EFN	1	1.87

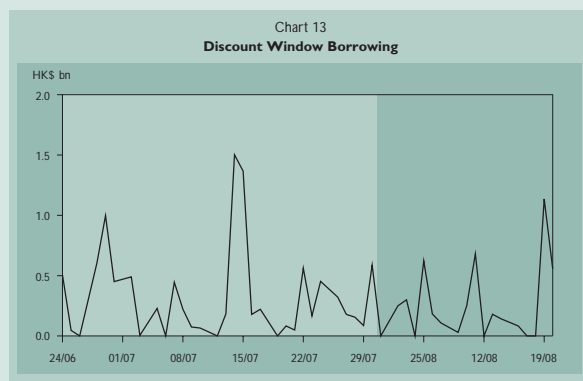
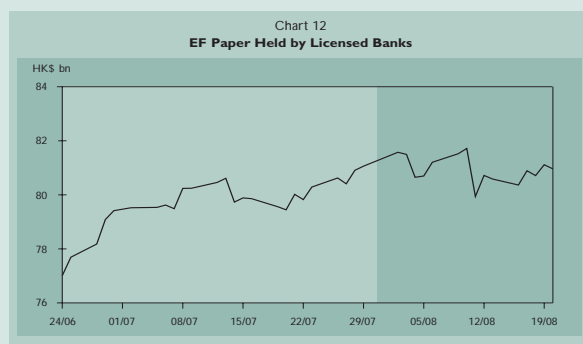


Table 5
Frequency of Individual Bank's
Access to the Discount Window
(2 – 20 August)

Frequency of using Discount Window	No. of banks
1	12
2	5
3	3
4	0
>4	1
Total	21

RECORD OF DISCUSSION OF THE MEETING OF THE EXCHANGE FUND ADVISORY COMMITTEE SUB-COMMITTEE ON CURRENCY BOARD OPERATIONS HELD ON 8 OCTOBER 1999

(Approved for Issue by the Exchange Fund Advisory Committee on 28 October 1999)

Currency Board Operations for the Period 23 August - 29 September 1999

The Sub-Committee noted that during the period under review the market exchange rate for the Hong Kong dollar had eased from 7.7642 to 7.7678, largely in parallel with the movement of the convertibility rate for the Aggregate Balance. Following the 25 bp rise in the US Fed Funds Target Rate on 24 August, the Base Rate in Hong Kong was adjusted upwards on 25 August by 25 bp to 6.75% (150 bp above the US Fed Funds Target Rate). Subsequently, the Hong Kong Association of Banks raised the savings rate under the Interest Rate Rules by 25 bp, to 3.75%, effective 30 August.

The Sub-Committee noted that the differential between Hong Kong dollar and US dollar interest rates had narrowed substantially during most of September before levelling off towards the end of the month. This narrowing of spreads was attributable partly to the market response to the HKMA's announcement on 6 September on Year 2000 liquidity arrangements, and partly to an improved economic environment in Hong Kong and on the Mainland.

The Sub-Committee noted that changes in the monetary base throughout the period under review had been fully matched by corresponding changes in foreign reserves in accordance with the rules of the Currency Board system. The report on Currency Board operations for the period under review is at Annex A.

Report on Selected Millennium Indicators for the period 23 August - 29 September 1999

The Sub-Committee noted an information paper on selected market indicators reflecting the Year 2000 positioning of market participants. The Sub-Committee noted that, while indicators continued to be generally stable during the period under review, the implied interest rate over the turn of the year displayed a modest premium. However, this was consistent with analogous indicators in other major currency markets, and did not appear to represent any Year-2000-related risk premium specific to the Hong Kong dollar.


Two-way Convertibility Undertaking

The Sub-Committee considered a paper exploring the advantages and disadvantages of providing a two-way Convertibility Undertaking in respect of the Aggregate

Balance. Members examined the possible theoretical advantages of a two-way Convertibility Undertaking and noted that a number of other Currency Board systems had such an undertaking in place. The possible advantages included a more transparent exchange rate anchor and the forestalling of speculative pressure for revaluation. Members also noted potential practical disadvantages and risks involved in a two-way undertaking: among these were the greater opportunities that might be provided for speculative attacks on the currency and the possibility that too narrow a bid-offer spread might displace a substantial part of foreign exchange business involving the Hong Kong dollar.

The Sub-Committee concluded that there was at present no urgency for deciding whether a two-way Convertibility Undertaking should be introduced, particularly in light of the fact that the movement of the convertibility rate in respect of the Aggregate Balance was still in progress. The Sub-Committee advised that, in managing its foreign exchange operations on the bid side, the HKMA should continue to respond to offers from banks according to prevailing market conditions.

The Mandatory Provident Fund and its Implications for Hong Kong's Financial Markets

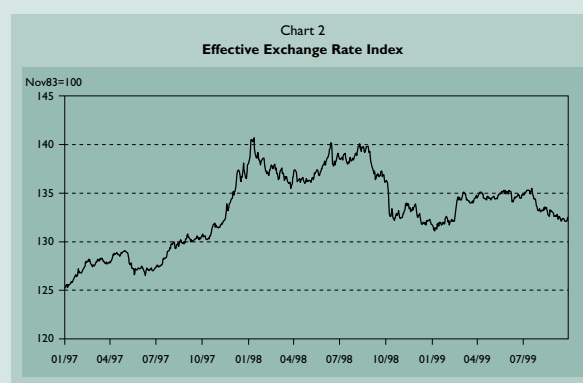
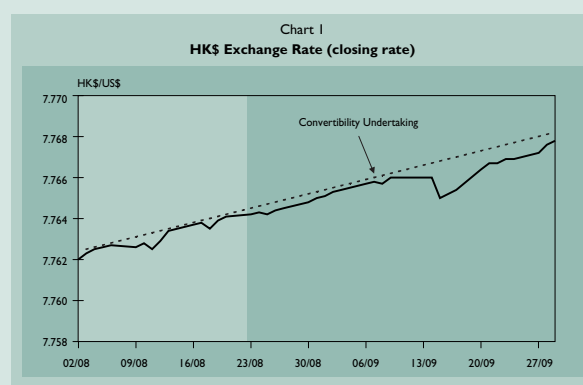
The Sub-Committee noted an information paper on the implications of the Mandatory Provident Fund for Hong Kong's financial markets. 

REPORT ON CURRENCY BOARD OPERATIONS

During the reporting period, the market exchange rate for the Hong Kong dollar eased from 7.7642 to 7.7678, in parallel to the movement of the convertibility rate in respect of the Aggregate Balance. As market sentiment improved and immediate concerns over another US interest rate hike were alleviated by the release of benign economic indicators, interbank interest rates eased significantly during September. The monetary base increased from HK\$197.18 bn to HK\$200.24 bn, mainly due to an increase in Certificates of Indebtedness. 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 7.7642 to 7.7678 during the reporting period, broadly matching the movement of the convertibility rate in respect of the Aggregate Balance. Amid news about the suspension of the foreign exchange intervention band by the Chilean Central Bank in the beginning of September, some selling orders of Hong Kong dollars arose. As a result, the exchange rate weakened towards the convertibility rate (at 7.7656) on 3 September, triggering the Convertibility Undertaking. Thereafter, reflecting some inflows of funds into Asia in response to signs of economic recovery in the region, the exchange rate strengthened to 7.7650 in mid-September, and Hong Kong dollars were sold to the banks. However, minor outflow of funds reappeared towards the end of the month, when short-term Hong Kong dollar interest rates fell to levels close to their US counterparts. The Hong Kong dollar exchange rate weakened to touch the convertibility rate at 7.7681 again on 28 September and triggered the Convertibility Undertaking. The exchange rate closed at 7.7678 at the end of the reporting period, 4 pips stronger than the convertibility rate of 7.7682 (Chart 1 and Chart 2).



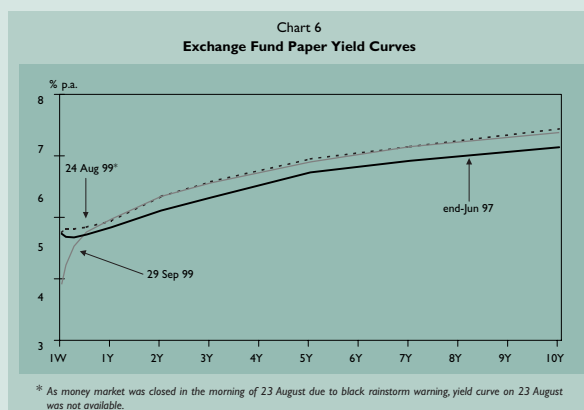
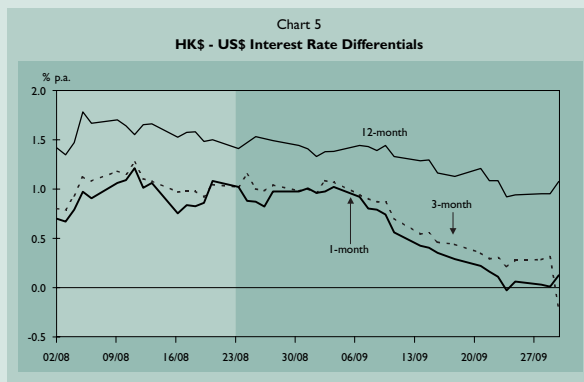
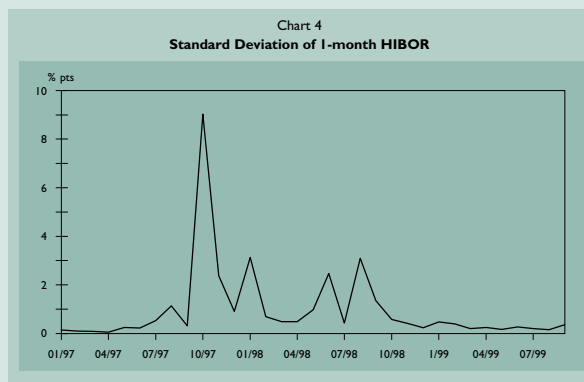
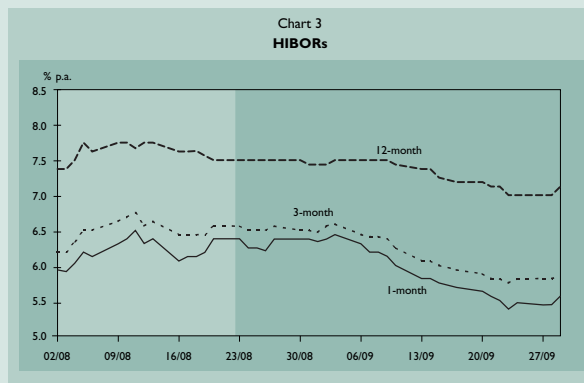
Interest Rates

Interbank interest rates remained largely stable until early September. Market sentiment improved in September amid the announcement of a stable yuan policy by senior Chinese officials and release of benign US economic indicators which alleviated concerns over an imminent US interest rate hike. In addition, the announcement of the money market arrangements in the Year 2000 context by the HKMA on

6 September was well received by the market. As a result of these developments, **interbank interest rates moved on a downward trend in September**. 1-month HIBOR declined from around 6.40% in early September to 5.38% on 23 September, before edging up slightly to 5.56% on 29 September. 12-month HIBOR also eased during the period under review, albeit at a less rapid pace, from 7.50% on 23 August to 7.13% at the end of the reporting period (Chart 3).

As interbank interest rates eased significantly in September, **interest rate volatility**, measured in terms of the standard deviation of 1-month HIBOR (Chart 4), **increased** from 0.16 percentage points in August to 0.36 percentage points in September (up to 29 September).

Reflecting mainly movements in Hong Kong dollar interest rates, **the differential between Hong Kong dollar and US dollar rates was largely stable until early September**. Alongside the general decline of Hong Kong dollar interbank interest rates amid favourable market developments, **the interest rate differential narrowed substantially during most of September before levelling off towards the end of the month**. Over the reporting period, the spread in terms of the one-month rate narrowed from 102 bp to 12 bp on 29 September. Possibly reflecting Year 2000 related concerns in the US interbank market, three-month US dollar interest rate for loans straddling the year-end surged up from 5.50% on 28 September to 6.05% on 29 September. As the three-month Hong Kong dollar interest rate remained fairly steady, it closed at 21 bp below its US dollar counterpart at the end of the reporting period (Chart 5).



Yields on shorter-term Exchange Fund Bills declined significantly, while yields on longer-term Exchange Fund paper only decreased marginally during the period under review. The yields on 10-year Exchange Fund Notes declined by 6 bp to 7.38%, while yields on 5-year paper stayed at around 6.9% during the reporting period (Chart 6). Yield spreads between 5-year and 10-year Exchange Fund paper and their US counterparts narrowed by 7 bp and 10 bp to 102 bp and 135 bp respectively during the reporting period (Table 1).

Alongside the 25 bp rise in the US Fed Funds Target Rate on 24 August, the **HKAB raised the savings rate under the Interest Rate Rules by 25 bp, to 3.75% effective on 30 August.** Concurrently, **the best lending rate offered by major banks was also raised by 25 bp to 8.50%.** The weighted average deposit rate offered by 44 major authorised institutions for 1-month time deposits (which are outside the Interest Rate Rules) rose from 6.08% on 27 August to 6.22% on 3 September, before declining to 5.55% on 24 September. Meanwhile, the effective deposit rate (taking into account the maturity of deposits) increased slightly from 4.33% in July to 4.37% in August (Chart 7).

Base Rate

Following the 25 bp rise in the US Fed Funds Target Rate on 24 August, the **Base Rate was adjusted upwards on 25 August by 25 bp to 6.75%** (150 basis points above the US Fed Funds Target Rate) and remained at that level for the rest of the reporting period (Chart 8).

Monetary Base

The monetary base, which comprises the outstanding amount of Certificates of Indebtedness (CIs), coins in circulation, the Aggregate Balance and the outstanding amount of Exchange Fund Bills and Notes, increased from HK\$197.18 bn on 23 August to HK\$200.24 bn on 30 September (Table 2). Movements of individual components are discussed below.

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

	27-Jun-97	24-Aug-99*	29-Sep-99
3-month	56	83	57
1-year	21	68	69
3-year	3	66	65
5-year	27	109	102
10-year	54	145	135

* As money market was closed in the morning of 23 August due to black rainstorm warning, yield spreads on 23 August were not available.

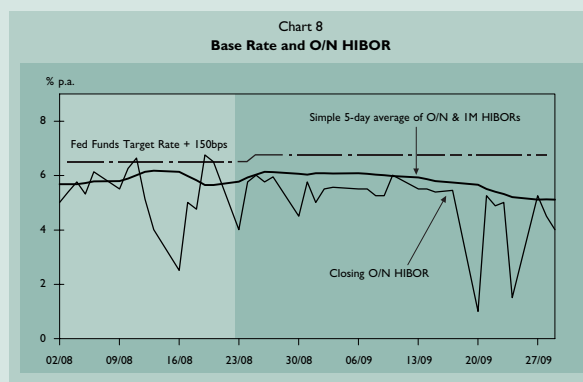
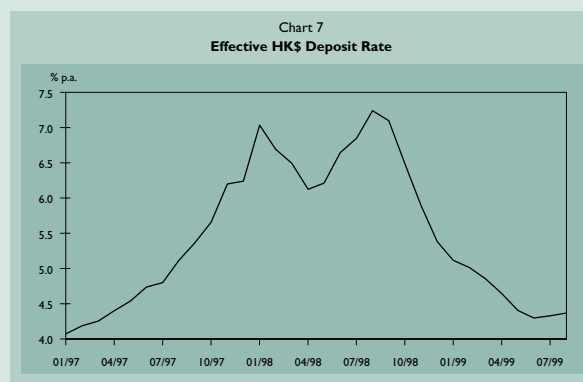
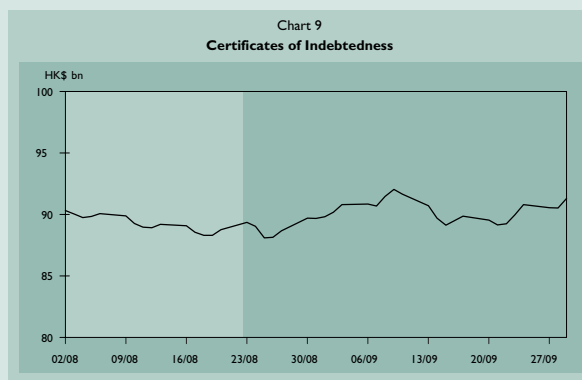


Table 2
Monetary Base

(HK\$ bn)	23-Aug	29-Sep
CIs	89.30	91.22
Coins in Circulation	5.92	5.98
Aggregate Balance	1.67	2.06
Outstanding EFBNs	100.30	100.99
Monetary Base	197.18	200.24

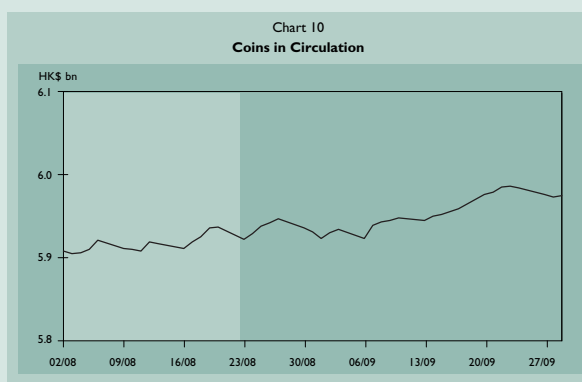
Certificates of Indebtedness

From 23 August to 9 September, the three Note Issuing Banks (NIBs) submitted to the Exchange Fund a total of US\$0.34 bn in exchange for an increase in CIs from HK\$89.30 bn to HK\$91.96 bn. Thereafter, the NIBs redeemed a total of HK\$0.74 bn of CIs in exchange for US\$0.09 bn. Thus, over the whole period, there was a **small increase in the outstanding amount of CIs** to HK\$91.22 bn (Chart 9).



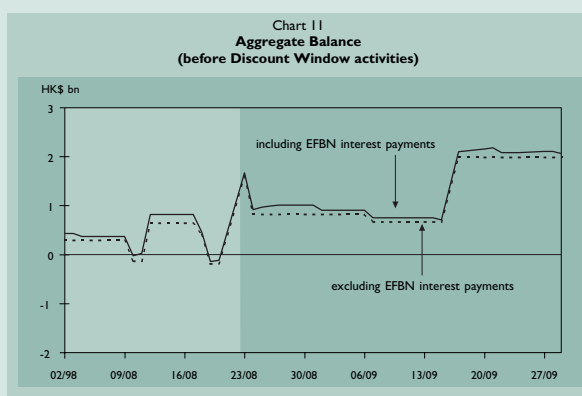
Coins

The total amount of **coins in circulation** increased marginally from HK\$5.92 bn on 23 August to HK\$5.98 bn on 29 September (Chart 10).



Aggregate Balance

Mainly reflecting a net inflow of funds, **the Aggregate Balance (before Discount Window activities) increased from HK\$1.67 bn on 23 August to HK\$2.06 bn on 29 September** (Chart 11).



Consequent to the outflow of funds towards the end of last reporting period, interbank liquidity tightened and the rise in interest rates reversed the flow of funds. The HKMA sold HK\$1.94 bn on 23 August, as a result of which the Aggregate Balance increased to HK\$1.67 bn on the same day. However, reflecting the settlement of earlier purchases of Hong Kong dollars by the HKMA, the Aggregate Balance declined to HK\$0.92 bn on 24 August. There were some minor outflows in early September and the HKMA bought HK\$155 mn under the Convertibility Undertaking on 3 September. As a result, the Aggregate Balance was further reduced to HK\$0.75 bn on 7 September. On the back of some inflows of funds into the Asian region in mid-September, the HKMA sold HK\$1.32 bn on 15 September in response to bank offers and the Aggregate Balance rebounded to HK\$2.10 bn on 17 September. Some minor outflows reappeared towards the end of the month and the HKMA bought HK\$621 mn under the Convertibility Undertaking on 28 September, thus reducing the forecast Aggregate Balance on 30 September to HK\$1.44 bn (Table 3).

Table 3
HKMA HK\$/US\$ FX Transactions*
(23 August – 29 September)

Trade Date	Net HK\$ purchase (+) / sale (-) (HK\$ mn)
23 Aug	-1,940
3 Sep	155
15 Sep	-1,320
28 Sep	621

* FX 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 reporting period, a total of HK\$ 0.72 bn interest payments on Exchange Fund paper were made, while an additional HK\$ 0.72 bn (market value) of Exchange Fund paper was issued to absorb the interest payments.

Outstanding Exchange Fund Bills and Notes

During the reporting period, the market value of outstanding Exchange Fund paper increased marginally from HK\$100.30 bn to HK\$100.99 bn. The increase was mainly a result of the additional net issue (referred to in paragraph 13 above). All issues of Exchange Fund Bills and Notes were well received by the market (Table 4). Probably reflecting banks' eagerness to hold Exchange Fund paper as collateral for Discount Window borrowing as part of their Year 2000 positioning, holdings of Exchange Fund paper by licensed banks before Discount Window activities (in terms of market value) increased moderately from HK\$81.55 bn (or 81.31% of total) on 23 August to HK\$82.59 bn (or 81.78% of total) on 29 September (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. Bank's access is unrestricted in respect of borrowings collateralised against Exchange Fund paper. During the period under review, banks borrowed a total of HK\$4.20bn from the HKMA through the Discount Window. The daily amount of Discount Window borrowing was generally less than HK\$500 mn (Chart 13).

A total of 23 banks borrowed overnight liquidity through the Discount Window (Table 5). Most banks used the Discount Window facility only infrequently and only one of them borrowed more than 4 times.

Almost all the borrowings made during the period were collateralised against Exchange Fund Bills and Notes. There were three occasions on which banks borrowed an amount exceeding 50% of their holdings of Exchange Fund paper.

Table 4
Issuance of EF paper
(23 August – 29 September)

	No. of issues launched	Over-subscription ratio
1-month EFB	4	2.09-3.56
3-month EFB	6	1.44-2.28
6-month EFB	3	3.03-3.78
12-month EFB	4	2.68-6.17
5-year EFN	1	2.63

Chart 12
EF paper held by Licensed Banks

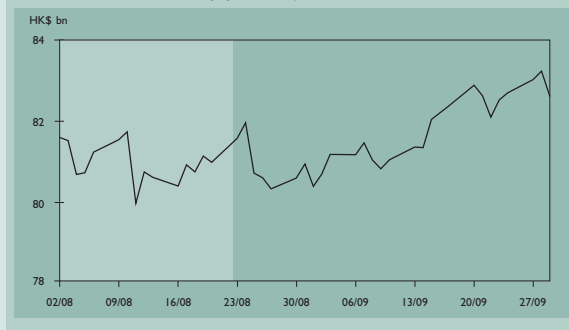


Chart 13
Discount Window Borrowing

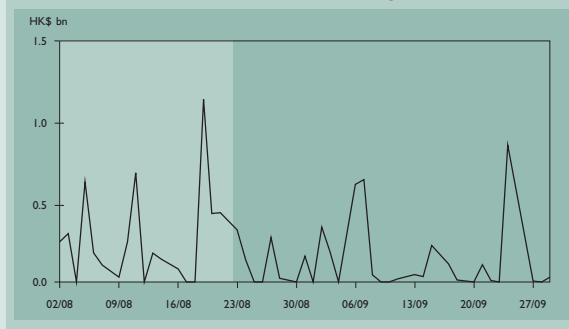


Table 5
Frequency of Individual Bank's
Access to the Discount Window
(23 August – 29 September)

Frequency of using Discount Window	No. of banks
1	10
2	9
3	2
4	1
>4	1
Total	23

Backing Portfolio

Due to an expansion of the monetary base and investment earnings during the reporting period, the value of backing assets increased by HK\$3.44 bn and **the backing ratio increased marginally from 110.43% on 23 August to 110.56% on 29 September.** 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. 