

RECORD OF DISCUSSION OF THE EXCHANGE FUND ADVISORY COMMITTEE SUB-COMMITTEE ON CURRENCY BOARD OPERATIONS ON 4 MAY 2000

(Approved for Issue by the Exchange Fund Advisory Committee on 25 May 2000)

Currency Board Operations for the Period I - 20 April 2000

The Sub-Committee noted that during the period under review the Hong Kong dollar exchange rate had eased slightly from 7.7864 to 7.7886, following closely the movement of the convertibility rate in respect of the Aggregate Balance. The Currency Board system had operated smoothly during a period of sharp corrections in the local stock market, with periodic outflows of funds. The Aggregate Balance had been volatile, reflecting market activity, and the Convertibility Undertaking had been triggered on a number of occasions. Members observed, however, that the volatility in the Aggregate Balance had not had a destabilising effect on the money market. Short-term interest rates had edged up slightly, but this appeared to be due more to a reversal of unusually liquid conditions in March than to any decline in market confidence. The twelve-month HIBOR remained very stable, which suggested that the markets were accepting the frequent flows into and out of the Aggregate Balance very well.

Members observed that there had been a general downward trend in the level of the Aggregate Balance since the introduction of the technical measures in September 1998, and agreed that further research into the dynamics of the Aggregate Balance and the usage of the Discount Window over the past 20 months would be of interest to the Sub-Committee.

The Sub-Committee noted that changes in the monetary base during the period under review had been fully matched by changes in foreign reserves in accordance with the Currency Board arrangements.

The report on Currency Board operations for the period under review is at [Annex A](#).

Currency Board Arrangements in Argentina and their Relevance for Hong Kong

The Sub-Committee considered a paper on aspects of Argentina's currency board system, which focused in particular on the core of that system, the dollarisation of banks' clearing balances. Members noted that the dollarisation of these balances with the Banco Central de la Republica Argentina (BCRA) had been introduced at a time of crisis in 1995 as a confidence boosting measure,


rather than as a technical measure to improve liquidity management. The measure had three main implications for the monetary system in Argentina. First, it reduced any incentive the BCRA might have had to devalue the peso by converting its liabilities into US dollars (a measure of greater significance for Argentina than for Hong Kong, since banks' clearing balances in the former also include statutory liquidity deposits). Secondly, it decoupled the impact of liquidity management from the asset demand factors determining peso interest rates, so that sudden shocks to liquidity in the clearing system did not affect the determination of peso interest rates. Thirdly, it marked a very significant step towards dollarisation, in that it denominated an important component of Argentina's monetary base in US dollars.

The Sub-Committee considered what uses, if any, dollarisation of the Aggregate Balance along the lines of the Argentinian model might have for Hong Kong. Members observed that the theoretical technical advantages of such a measure included the removal of exchange rate, settlement and portfolio risks currently entailed in the switching between US dollars and Hong Kong dollars in the Aggregate Balance. Members noted, however, that these risks could be removed, or at least mitigated, by measures other than dollarisation of the Aggregate Balance. For example, exchange rate risk could be removed by constraining movements in the exchange rate for the Convertibility Undertaking to an even narrower range, settlement risk could be removed by changing the settlement convention from T+2 to T+0, and portfolio risk had already become less of an issue following the technical measures introduced in September 1998.

Members concluded that, while the dollarisation of the Aggregate Balance had some technical merits, these advantages could not be achieved without generating the unintended signaling effect that a substantial step towards dollarisation of the currency as a whole had been taken. Since the Sub-Committee had already advised against dollarisation as a policy, and, in view of the fact that any of the technical difficulties addressed by dollarisation of the Aggregate Balance could be dealt with by other measures, Members advised that the measure was not appropriate for Hong Kong. Members advised, however, that dollarisation of the Aggregate Balance might be held in reserve as a possible contingency measure. Its desirability would depend on whether a step towards

dollarisation would be appropriate to alleviate the difficulties that Hong Kong's currency board system might face, without unpalatable side effects.

Budget for Financial Year 2000: A Preliminary Assessment

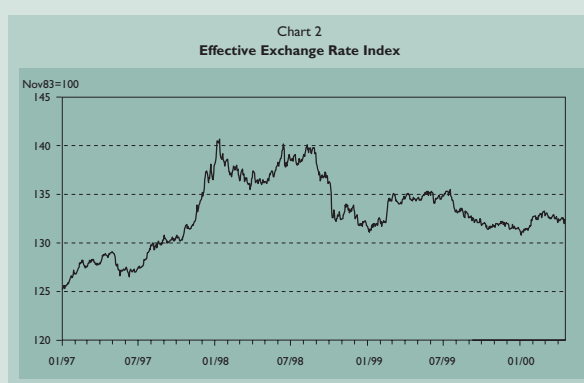
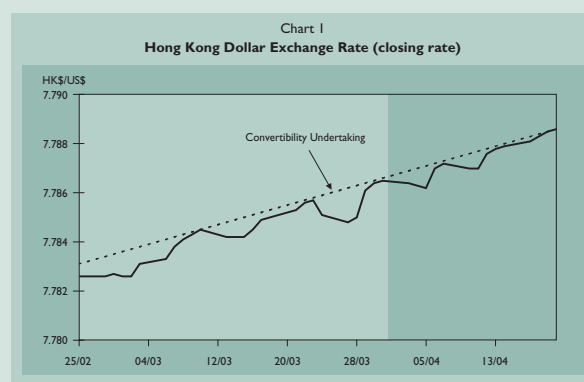
The Sub-Committee considered an information paper assessing the implications of the 2000 Budget. 

REPORT ON CURRENCY BOARD OPERATIONS (1 APRIL - 20 APRIL 2000)

The market exchange rate for the Hong Kong dollar eased slightly from 7.7864 to 7.7886, broadly in line with the movement of the convertibility rate in respect of the Aggregate Balance. Amid corrections in the local stock market, some outflows of funds were seen during the reporting period. The Convertibility Undertaking was triggered on a number of occasions and the resultant shrinkage in interbank liquidity led to a firming of local interest rates. The monetary base decreased from HK\$210.4 bn to HK\$209.9 bn during the period, reflecting reductions in the outstanding amount of Certificates of Indebtedness and 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 Hong Kong dollar exchange rate eased slightly from 7.7864 to 7.7886, broadly matching the movement of the convertibility rate in respect of the Aggregate Balance. Partly reflecting corrections in the local stock market, there were some outflows of funds at the beginning of the reporting period. The HKMA bought a total of HK\$389 mn under the Convertibility Undertaking on 3 April. Taking into account the HK\$1.25 bn purchased by the HKMA under the Convertibility Undertaking on the last day of the preceding period, the Aggregate Balance shrank into negative territory, and Hong Kong dollar interest rates firmed up. Interbank liquidity increased thereafter as the HKMA sold Hong Kong dollars in response to bank offers on 5 and 7 April. However, the exchange rate eased to touch the convertibility rate again on 7 April. The HKMA bought a total of HK\$2.26 bn under the Convertibility Undertaking and, as a result, the Aggregate Balance dropped into negative territory again on 11 April. As demand for Hong Kong dollar assets resurfaced, the exchange rate strengthened in the second week of April, and the HKMA sold a total of HK\$3.89 bn on 12 April in response to bank offers. Thereafter, the exchange rate eased to trigger the Convertibility Undertaking again on 14 and 20 April respectively as demand for Hong Kong dollars subsided, and the HKMA bought a total of HK\$2.34 bn. The exchange rate closed at 7.7886 on 20 April, the same as the convertibility rate (Charts 1 and 2).



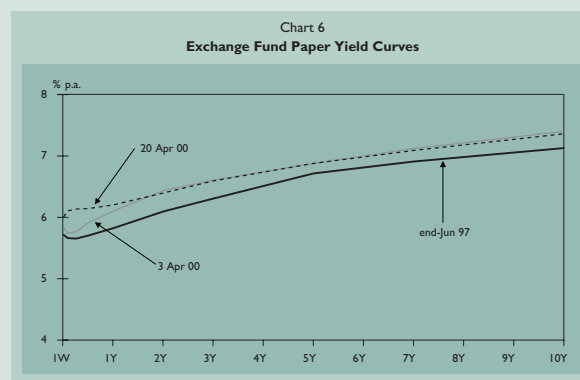
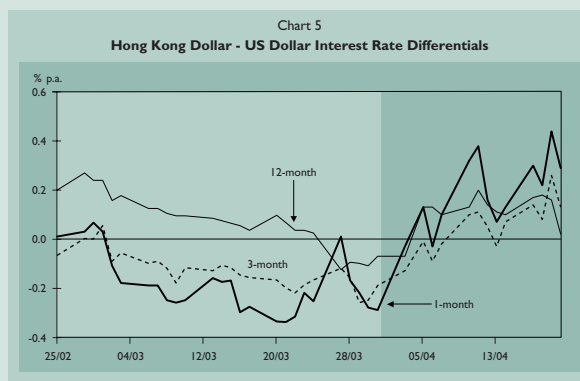
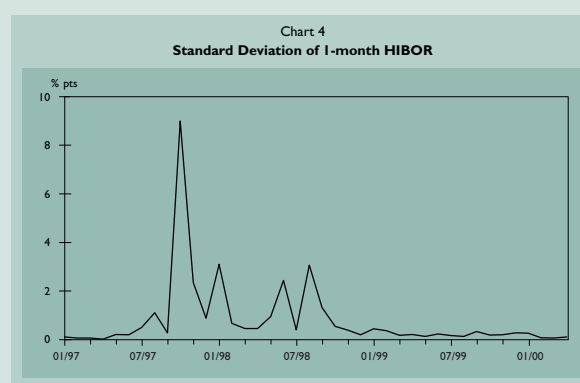
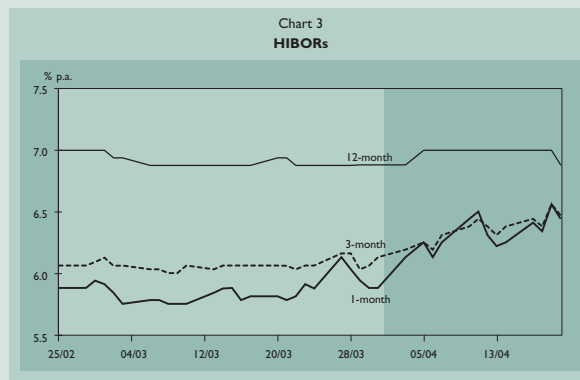
Interest Rates

Interbank interest rates moved on a general up-trend during the reporting period on the back of tightening interbank liquidity. 1-month HIBOR rose from 6.13% on 3 April to 6.50% on 11 April, when the Aggregate Balance was at one point forecast to fall to a negative level of HK\$2.10 bn. It then eased to 6.22% on 13 April as interbank liquidity returned to a positive level. Thereafter, amid shrinking interbank liquidity, 1-month HIBOR peaked at 6.56% on 19 April before closing at 6.44% at the end of the reporting period. 3-month HIBOR followed a similar pattern, moving within a range of 6.19% to 6.56%. 12-month HIBOR moved between a narrow range of 6.88% to 7.00% (Chart 3).

Interest rate volatility, measured in terms of the standard deviation of 1-month HIBOR (Chart 4), increased slightly from 0.09 percentage points in March to 0.14 percentage points in April (up to 20 April).

As Hong Kong dollar interest rates firmed relative to their US dollar counterparts during the reporting period, the negative spread between Hong Kong dollar and US dollar rates was closed and turned positive in the first week of April. The spread between 1-month HIBOR and the corresponding US dollar rate widened to 38 bp on 11 April on shrinking interbank liquidity, but then narrowed to 7 bp on 13 April as interbank liquidity expanded. Towards the end of the reporting period, however, the spread widened again to reach 44 bp on 19 April before easing to 29 bp at the end of the period. The negative spread between 12-month Hong Kong dollar and US dollar interbank rates also diminished during the reporting period, closing at 2 bp above its US counterpart on 20 April (Chart 5).

The Exchange Fund paper yield curve flattened slightly during the reporting period. Yields on short-term Exchange Fund paper rose alongside the firming of short-term interbank interest rates (Chart 6). The yield spread between 5-year Exchange Fund paper and US Treasuries widened by 29 bp to 57 bp, while the yield spread between 10-year Exchange Fund paper and US Treasuries narrowed by 2 bp to 130 bp on 20 April (Table 1).



During the reporting period, **the savings rate** under the Interest Rate Rules and the **best lending rate offered by major banks remained unchanged at 4.25% and 9.00% respectively**. The weighted average deposit rate offered by 44 major authorized institutions for 1-month time deposits (which are outside the Interest Rate Rules) increased from 5.79% on 17 March to 6.19% on 14 April. The effective deposit rate¹ increased from 4.19% in February to 4.27% in March (Chart 7).

Base Rate

The Base Rate remained unchanged at 7.50% (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\$210.39 bn on 3 April to HK\$209.92 bn on 20 April** (Table 2). Movements in the individual components are discussed below.

Certificates of Indebtedness

Probably reflecting an increase in public demand for banknotes early in the month, the three NIBs submitted to the HKMA a total of US\$0.25 bn on 3 April in exchange for HK\$1.93 bn worth of CIs. The NIBs then redeemed a total of HK\$3.79 bn in exchange for US\$0.49 bn during 5-13 April. Thereafter, in anticipation of a rise in public demand for cash ahead of the Easter holidays, the NIBs submitted a total of US\$0.48 bn in exchange for HK\$3.74 bn worth of CIs during the rest of the reporting period (Chart 9).

Coins

The total amount of **coins in circulation increased marginally** from HK\$6.06 bn to HK\$6.07 bn during the period (Chart 10).

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

	27-Jun-97	3-Apr-00	20-Apr-00
3-month	56	-24	29
1-year	21	-24	10
3-year	3	-17	13
5-year	27	28	57
10-year	54	132	130

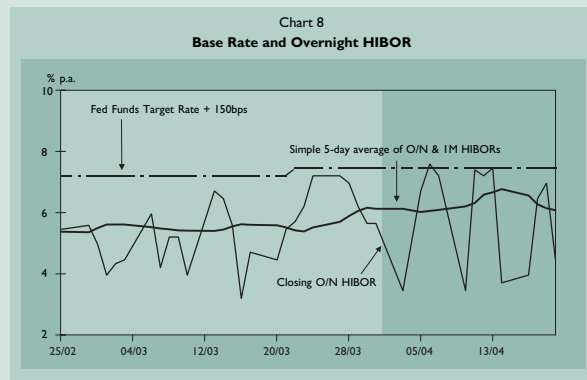
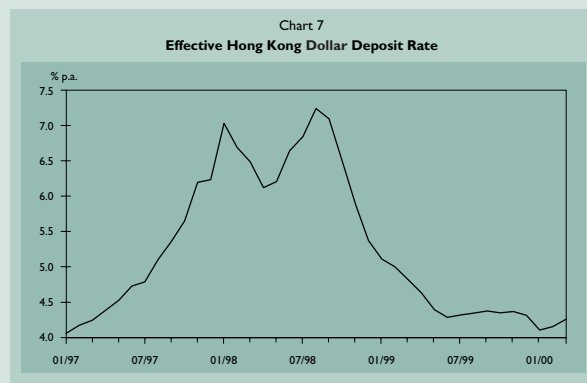


Table 2
Monetary Base

(HK\$ bn)	3-Apr	20-Apr
CIs	99.39	99.34
Coins in Circulation	6.07	6.07
Aggregate Balance	0.91	0.26
Outstanding EFBNs	104.03	104.26
Monetary Base	210.39	209.92

¹ 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.

Aggregate Balance

The **Aggregate Balance decreased from HK\$0.91 bn to HK\$0.26 bn during the reporting period.** Reflecting the purchase of a total of HK\$1.64 bn by the HKMA under the Convertibility Undertaking on 31 March and 3 April, the Aggregate Balance shrank from HK\$0.91 bn on 31 March to a negative level of HK\$0.70 bn on 6 April. Thereafter, as the HKMA sold a total of HK\$0.86 bn on 5 and 7 April in response to bank offers, the Aggregate Balance rebounded to HK\$0.16 bn on 7 April. However, on the back of some outflows of funds, the HKMA bought a total HK\$2.26 bn under the Convertibility Undertaking on 7 April, and the Aggregate Balance shrank to a negative level of HK\$2.10 bn again on 11 April. Consequently, interbank interest rates firmed up and the outflows of funds reversed. The HKMA sold a total of HK\$3.89 bn in response to bank offers on 12 April, and the Aggregate Balance returned to a positive level of HK\$1.82 bn on 14 April. As demand for Hong Kong dollars subsided in the latter part of the reporting period, the HKMA bought another HK\$1.56 bn and HK\$0.78 bn under the Convertibility Undertaking on 14 and 20 April respectively. As a result, the forecast Aggregate Balance on 26 April shrank to a negative level of HK\$0.50 bn (Table 3 and Chart 11).

During the reporting period, a total of **HK\$ 0.31 bn of interest payments on Exchange Fund paper were made, while an additional HK\$ 0.27 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 slightly from **HK\$104.03 bn to HK\$104.26 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 decreased during the period,** from HK\$89.68 bn (or 86.2% of total) on 3 April to HK\$88.15 bn (or 84.6% of total) on 20 April (Chart 12).

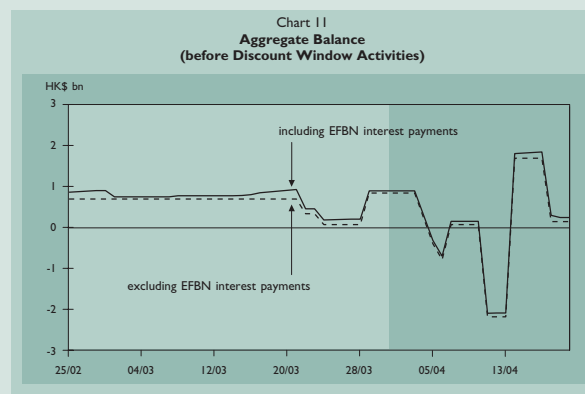
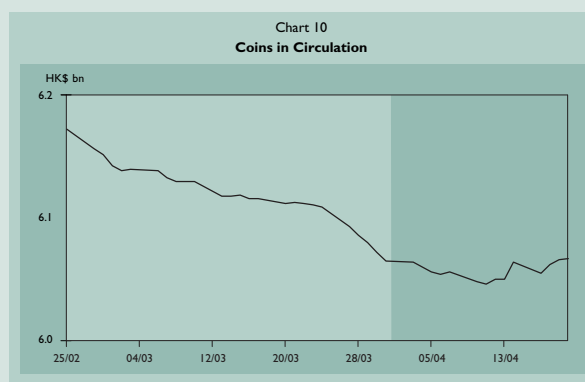
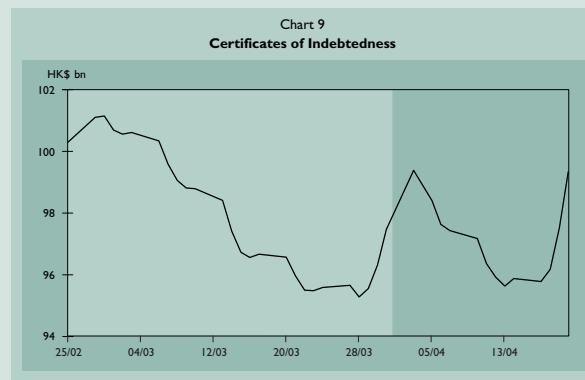


Table 3
HKMA Hong Kong Dollar/US Dollar
Foreign Exchange Transactions*
(1 April – 20 April)

Trade Date	Net Hong Kong Dollar Purchase (+) / Sale (-) (HK\$ mn)
3 Apr	+389
5 Apr	-78
7 Apr	-779
7 Apr	+2,258
12 Apr	-3,894
14 Apr	+1,558
20 Apr	+779
Total	+233

* 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.

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 collateralized against Exchange Fund paper. Given the shrinkage in interbank liquidity during the reporting period, Discount Window borrowing became more active. For the period as a whole, **banks in total borrowed HK\$15.10 bn** from the HKMA, compared with HK\$3.13 bn in the preceding period. Most of the borrowings used Exchange Fund paper as collateral (Chart 13).

Amid shrinking interbank liquidity, **a total of 34 banks borrowed overnight funds through the Discount Window** (Table 5), compared with 19 banks in the preceding period. Most banks used the Discount Window facility only infrequently.

Backing Portfolio


Along with the decrease in CIs outstanding and the Aggregate Balance, backing assets fell accordingly. Nevertheless, as the decline in backing assets was less than that of the monetary base, partly due to positive net investment income effect, **the backing ratio increased from 111.89% on 31 March to 112.04% on 24 April**. 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. 

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

	No. of Issues Launched	Over-Subscription Ratio
1-month EFB	2	1.36-2.41
3-month EFB	3	0.56-1.70
6-month EFB	2	0.85-3.08
12-month EFB	1	6.05
5-year EFN	1	4.68

Chart 12
Exchange Fund Paper Held by Licensed Banks

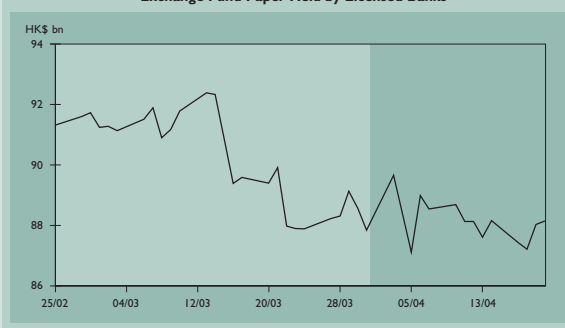


Chart 13
Discount Window Borrowing

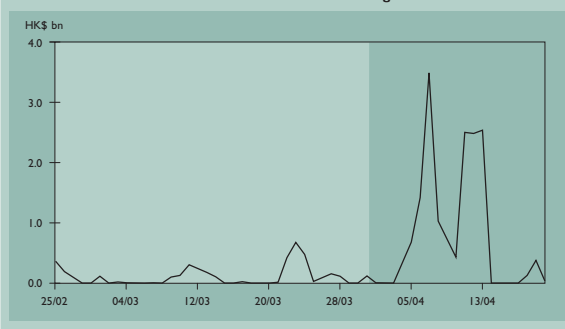


Table 5
Frequency of Individual Bank's
Access to the Discount Window
(1 April – 20 April)

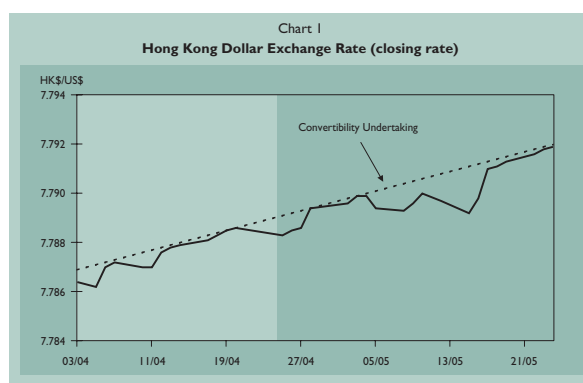
Frequency of Using Discount Window	No. of Banks
1	21
2	6
3	3
4	2
>4	2
Total	34

REPORT ON CURRENCY BOARD OPERATIONS (21 APRIL - 24 MAY 2000)

The Hong Kong dollar exchange rate eased slightly from 7.7883 to 7.7919, broadly in line with the movement of the convertibility rate in respect of the Aggregate Balance. Amid corrections in the local stock market, some outflows of funds were seen during the reporting period. The Convertibility Undertaking was triggered on 4 May and the resultant shrinkage in interbank liquidity led to a firming of local interest rates. The monetary base decreased from HK\$208.73 bn to HK\$204.18 bn during the period, reflecting reductions in the outstanding amount of Certificates of Indebtedness and the Aggregate Balance. Changes in the monetary base were fully matched by corresponding changes in foreign reserves in accordance with the Currency Board arrangements. The backing ratio reached 112.57% on 23 May, surpassing the upper limit of 112.5%. As approved by the Financial Secretary in January 2000 on the arrangements for the transfer of funds between the backing and investment portfolios of the Exchange Fund, assets were shifted out from the backing portfolio to the investment portfolio, and the ratio was restored to 110% on 25 May.

Hong Kong Dollar Exchange Rate

The Hong Kong dollar exchange rate eased slightly from 7.7883 to 7.7919, broadly matching the movement of the convertibility rate in respect of the Aggregate Balance. Alongside an improvement in liquidity associated with the sales of some Hong Kong dollars by the Hong Kong Monetary Authority in response to bank offers in late April, Hong Kong dollar interest rates softened. As a result, the Hong Kong dollar exchange rate started to ease in late April, triggering the Convertibility Undertaking on 4 May. Thereafter, reflecting a firming of local interest rates amid expectations of an aggressive interest rate hike at the May FOMC meeting, the exchange rate strengthened, from 7.7899 on 4 May to 7.7892 on 15 May. The HKMA sold again a total of HK\$0.8 bn in response to bank offers on 16 May. Towards the last week of the period, as outflows from Hong Kong dollar assets resurfaced amid corrections in the local stock market, the exchange rate weakened to close at 7.7919 on 24 May (Charts 1 and 2).

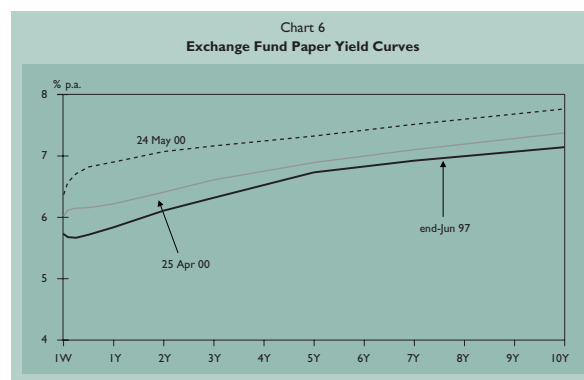
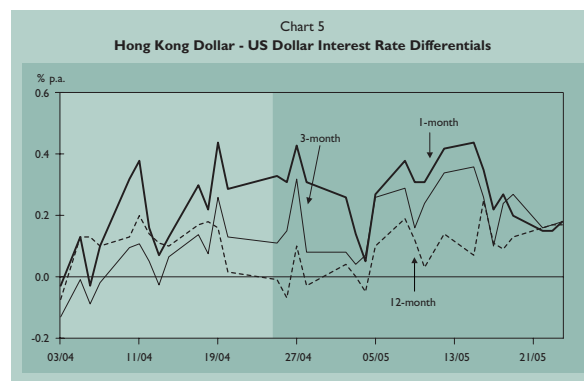
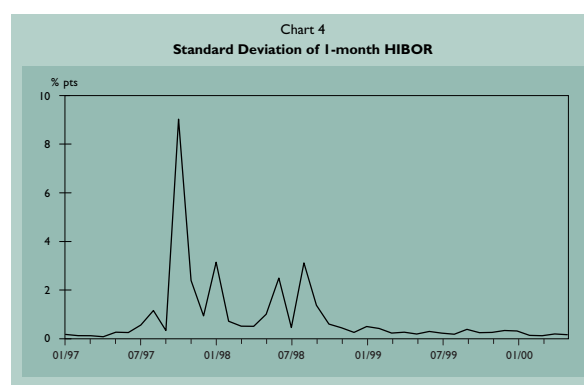
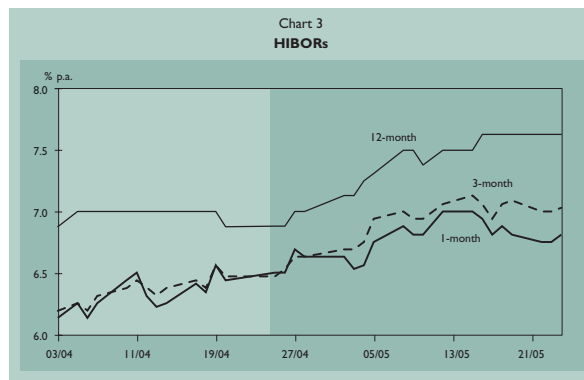


Interest Rates

Interbank interest rates moved on a general up-trend until the last week of the reporting period on the back of tightening interbank liquidity. 1-month HIBOR rose from 6.50% on 25 April to 6.69% on 27 April, when the Aggregate Balance fell to a negative level on 26 April. It then eased to 6.53% on 3 May as interbank liquidity returned to a positive level. Thereafter, as outflows from Hong Kong dollar assets resurfaced, leading to a shrinkage of interbank liquidity, 1-month HIBOR firmed to peak at 7.00% on 12 May, before closing at 6.81% at the end of the reporting period. 3-month HIBOR followed a similar pattern, rising from 6.47% to 7.03%. 12-month HIBOR also increased, but at a more rapid pace, from 6.88% to 7.63% during the period under review (Chart 3).

Interest rate volatility, measured in terms of the standard deviation of 1-month HIBOR (Chart 4), decreased slightly from 0.17 percentage point in April to 0.14 percentage point in May (up to 24 May).

Reflecting higher Hong Kong dollar interest rates, 1-month and 3-month HIBORs stayed above their corresponding US interest rates during the period. The spread between 1-month HIBOR and the corresponding US dollar rate widened to 43 bp on 27 April when the Aggregate Balance dropped to negative territory, but then narrowed to 5 bp on 4 May as interbank liquidity expanded. Thereafter, however, the spread widened again to reach 44 bp on 15 May before easing to 18 bp at the end of the period. The negative spread between 12-month Hong Kong dollar and US dollar interbank rates was closed and turned positive in the first week of May. It stood at 17 bp above its US counterpart on 24 May (Chart 5).

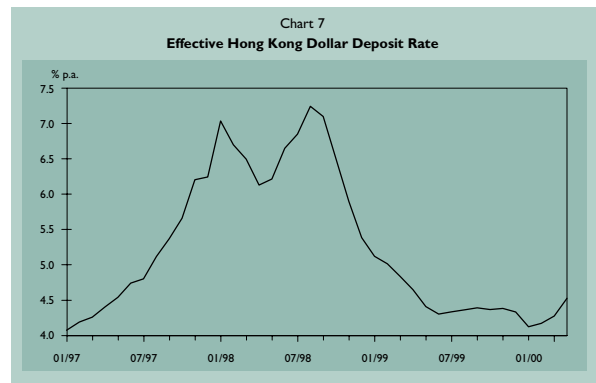


In line with the firming of interbank interest rates during the period under review, **yields on Exchange Fund paper rose** (Chart 6). Yields on 5-year and 10-year Exchange Fund notes increased by 45 bp and 39 bp to 7.32% and 7.76% respectively. The yield spread between 5-year Exchange Fund paper and US Treasuries widened by 2 bp to 53 bp, while **the yield spread** between 10-year Exchange Fund paper and US Treasuries **narrowed** by 8 bp to 121 bp on 24 May (Table 1).

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

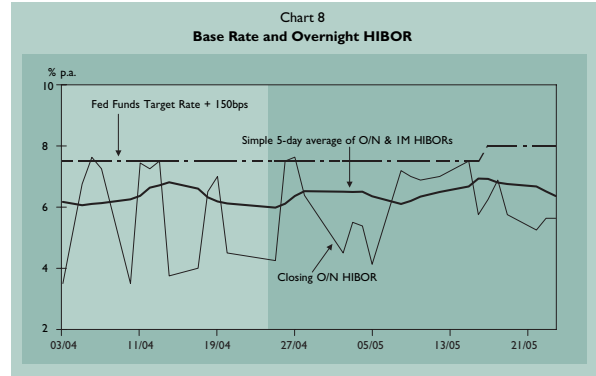
	27-Jun-97	25-Apr-00	24-May-00
3-month	56	28	65
1-year	21	6	60
3-year	3	18	23
5-year	27	51	53
10-year	54	129	121

Alongside the 50 bp increase in the US policy rates, the HKAB raised **the savings rate** under the Interest Rate Rules by 50 bp, to 4.75%, effective on 22 May. Concurrently, the **best lending rate offered by major banks was also raised from 9.00% to 9.50%**. 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 6.30% on 20 April to 6.74% on 19 May. The effective deposit rate¹ increased from 4.27% in March to 4.52% in April (Chart 7).



Base Rate

Following the 50 bp rise in the US Fed Funds Target Rate on 16 May, the **Base Rate was adjusted upwards on 17 May by 50 bp to 8.0%** (150 basis points above the US Fed Funds Target Rate) and remained at that level for the rest of the 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, **decreased from HK\$208.73 bn on 25 April to HK\$204.18 bn on 24 May** (Table 2). Movements in the individual components are discussed below.

Table 2
Monetary Base

(HK\$ bn)	25-Apr	24-May
CIs	98.08	93.31
Coins in Circulation	6.06	6.04
Aggregate Balance	0.30	0.41
Outstanding EFBNs	104.30	104.43
Monetary Base	208.73	204.18

¹ 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) decreased from HK\$98.08 bn to HK\$93.31 bn.** Reflecting a return of surplus bank notes to the banking system after the Easter holidays, the three Note Issuing Banks (NIBs) redeemed a total of HK\$3.28 bn worth of CIs in exchange for US\$0.42 bn during 25-27 April. Thereafter, the NIBs submitted to the Exchange Fund a total of US\$0.24 bn in exchange for an increase in CIs from HK\$96.06 bn on 27 April to HK\$97.95 bn on 2 May. From 3 May to 24 May, alongside a decline in demand in Hong Kong dollars, a net redemption of HK\$4.64 bn in exchange for US\$0.59 bn was recorded (Chart 9).

Coins

The total amount of **coins in circulation decreased marginally** from HK\$6.06 bn to HK\$6.04 bn during the period (Chart 10).

Aggregate Balance

The **Aggregate Balance increased from HK\$0.30 bn to HK\$0.41 bn during the reporting period.** Taking into account the HK\$0.8 bn purchased by the HKMA under the Convertibility Undertaking on 20 April for settlement on 26 April, the Aggregate Balance fell to negative HK\$0.5 bn on 26 April. Consequently, interbank interest rates firmed up and the outflows of funds reversed. The HKMA sold HK\$1.17 bn on 28 April in response to bank offers, and the Aggregate Balance rebounded to a positive level of HK\$0.76 bn. Thereafter, outflows from Hong Kong dollar assets re-appeared, the HKMA bought another HK\$0.97 bn under the Convertibility Undertaking on 4 May. As such, the Aggregate Balance shrank to a negative level of HK\$0.33 bn on 8 May, and remained around that level until 16 May. The Aggregate Balance returned to positive on 16 May as the HKMA sold HK\$0.8 bn in response to bank offers (Table 3 and Chart 11).

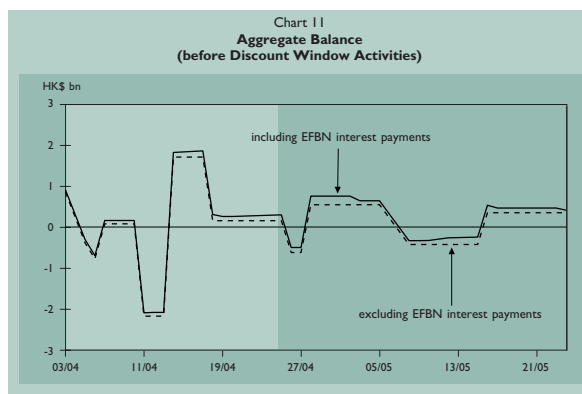
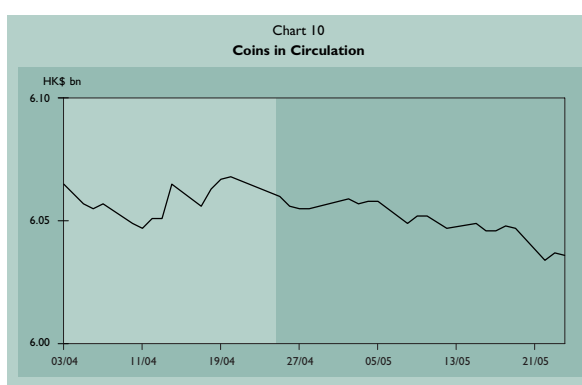
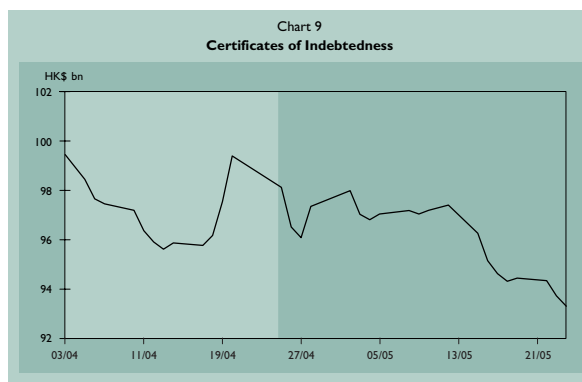


Table 3
HKMA Hong Kong Dollar/US Dollar
Foreign Exchange Transactions*
(21 April – 24 May)

Trade Date	Net Hong Kong Dollar Purchase (+) / Sale (-) (HK\$ mn)
28 Apr	-1,168
4 May	+974
16 May	-779
Total	-973

* 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 reporting period, a total of **HK\$0.63 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\$ 0.67 bn (market value) of Exchange Fund paper was issued to absorb these interest payments**.

Outstanding Exchange Fund Bills and Notes

During the reporting period, **the market value of outstanding Exchange Fund paper increased slightly from HK\$104.30 bn to HK\$104.43 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\$87.95 bn (or 84.3% of total) on 25 April to HK\$88.66 bn (or 84.9% of total) on 24 May** (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 collateralized against Exchange Fund paper. Given a low level of interbank liquidity during the reporting period, Discount Window borrowing remained high. For the period as a whole, **banks in total borrowed HK\$8.46 bn** from the HKMA, compared with HK\$15.10 bn in the preceding period. Most of the borrowings used Exchange Fund paper as collateral (Chart 13).

Amid shrinking interbank liquidity, **a total of 31 banks borrowed overnight funds through the Discount Window** (Table 5), compared with 34 banks in the preceding period. Most banks used the Discount Window facility only infrequently.

Table 4
Issuance of Exchange Fund Paper
(21 April – 24 May)

	No. of Issues Launched	Over-Subscription Ratio
1-month EFB	4	2.27-2.84
3-month EFB	5	0.01-1.96
6-month EFB	2	0.31-2.37
12-month EFB	1	5.92
2-year EFN	1	5.33

Chart 12
Exchange Fund Paper Held by Licensed Banks

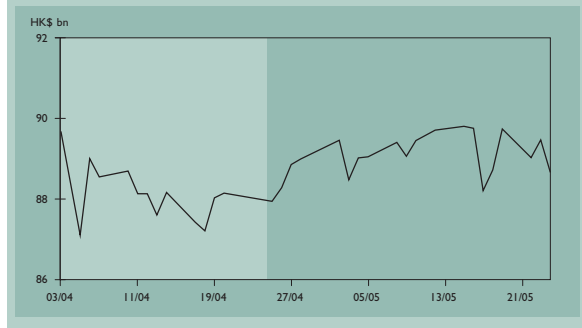


Chart 13
Discount Window Borrowing

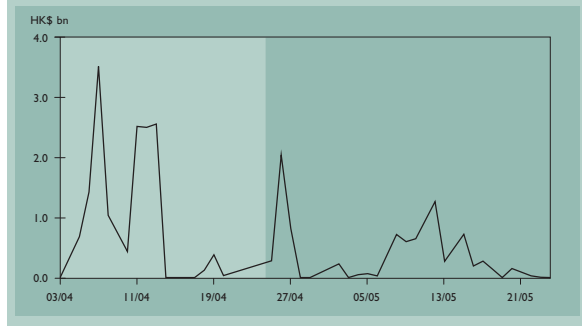


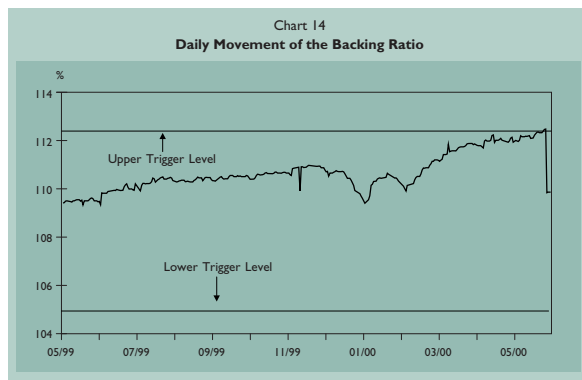
Table 5
Frequency of Individual Bank's
Access to the Discount Window
(21 April – 24 May)

Frequency of Using Discount Window	No. of Banks
1	18
2	4
3	4
4	2
>4	3
Total	31

Backing Portfolio

Along with the decrease in CIs outstanding and the Aggregate Balance, backing assets fell accordingly. Nevertheless, as the decline in backing assets was less than that of the monetary base, partly due to positive net investment income effect, **the backing ratio increased from 112.09% on 25 April to 112.58% on 24 May**. 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.

The backing ratio surpassed the upper trigger level of 112.5% and reached 112.57% on 23 May. As approved by the Financial Secretary in January 2000 on the arrangements for the transfer of funds between the backing and investment portfolios of the Exchange Fund, **assets were shifted out of the backing portfolio to the investment portfolio such that the backing ratio was restored to 110% on 25 May (Chart 14)**. Under the arrangements, which were recommended by the EFAC Subcommittee for Currency Board Operations (CBC), when the backing ratio reaches 112.5% (the upper trigger point), assets will be transferred out of the backing portfolio to the investment portfolio to enhance the investment return such that the ratio is reduced to 110%. On the other side, should the ratio drop to 105% (the lower trigger point), assets will be injected from the investment portfolio to the backing portfolio to ensure sufficient liquid backing assets by restoring the ratio to 107.5%. 🔄



RECORD OF DISCUSSION OF THE EXCHANGE FUND ADVISORY COMMITTEE SUB-COMMITTEE ON CURRENCY BOARD OPERATIONS ON 5 JULY 2000

(Approved for Issue by the Exchange Fund Advisory Committee on 27 July 2000)

Currency Board Operations for the Period 25 May - 26 June 2000

The Sub-Committee observed that, during much of the period under review, the Hong Kong dollar exchange rate had closely tracked the movement of the convertibility rate in respect of the Aggregate Balance. In mid-June, the Convertibility Undertaking had been triggered and the Aggregate Balance had shrunk into negative territory. This had led to a firming of interest rates: combined with more buoyant equity market conditions and a consequent rise in the demand for Hong Kong dollar assets, the exchange rate had strengthened markedly. Sales of Hong Kong dollars by the Hong Kong Monetary Authority caused the Aggregate Balance to rise towards the end of the reporting period. Members noted that interest rates had followed a general downward trend during the reporting period: this was due partly to alleviated concerns over another US dollar interest rate increase and partly to a revival of buying interest in the local equity market.

The Sub-Committee noted that, following the transfer of assets from the Backing Portfolio to the Investment Portfolio, after the upper trigger level of 112.5% in the backing ratio had been reached in late May, the backing ratio had gradually increased from 110% on 25 May to 110.47% on 26 June. The Sub-Committee also noted that changes in the monetary base during the reporting period had been fully matched by corresponding changes in foreign reserves in accordance with the Currency Board arrangements.

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

Proposed Scope of the Review of Currency Board Arrangements

The Sub-Committee considered a paper on the proposed scope of its continuing review of the Currency Board arrangements.

The Sub-Committee noted that the scheme to move the convertibility rate in respect of the Aggregate Balance from 7.75 to 7.80 by one pip per calendar day had been progressing smoothly, and that, as scheduled, the convertibility rate would converge with the linked rate of 7.80 on 12 August. The Sub-Committee agreed that it was desirable to continue to keep under review

the operation of the Currency Board system, and that the scope of the review should cover mainly the question of convertibility and transferability of the four components of the monetary base. In particular, this included a revisiting of the following issues, which had been examined in previous Sub-Committee meetings:

- (a) Two-way convertibility undertaking for the Aggregate Balance (8 October 1999)
- (b) Transferability between Certificates of Indebtedness and the Aggregate Balance (9 April 1999)
- (c) Transferability between the Aggregate Balance and Exchange Fund Bills and Notes (8 January 1999)
- (d) Extending the Convertibility Undertaking to Exchange Fund Bills and Notes (5 March 1999)

Members also agreed that the question of liquidity management and its relationship with foreign exchange transactions, particularly in the light of the experience of the currency board systems of Argentina and Estonia, should be examined.

Item (a) was to be discussed in the present meeting, while other items would be reviewed on future occasions.

Convertibility Undertaking in Respect of the Aggregate Balance

The Sub-Committee considered a paper reviewing the current policy and discussing options for HKMA operations on the strong side of the linked exchange rate. The Sub-Committee noted that, when it had previously examined this issue at its meeting in October 1999, its conclusion had been that the current policy should remain unchanged. Since then, however, two factors that had a bearing on that conclusion had ceased to be relevant: these were the Year 2000 issue, which had made it desirable for the HKMA to retain flexibility in its operations on the strong side for the time being, and the movement to 7.80 of the convertibility rate on the weak side in respect of the Aggregate Balance, which would be completed on 12 August.

Members considered a number of options for HKMA operations on the strong side, ranging from the current generally passive approach to an explicit two-way

convertibility undertaking at the limits of a narrow band, either centred on 7.80 or bounded on the weak side at 7.80. Members observed that the advantages of a two-way convertibility undertaking included greater transparency and predictability, and a tidier, more symmetrical arrangement. The disadvantages included the possibility that too rigid an arrangement would play into the hands of speculators, and the possibility that too narrow a bid-offer band would displace a substantial part of foreign exchange business involving the Hong Kong dollar. Too wide a band, in contrast, might result in undue volatility in the exchange rate and other market variables. Members noted that the present system, in which the HKMA managed its foreign exchange operations on the bid side by responding to offers from banks according to prevailing market conditions, was working well and was accepted by the market. They concluded that on balance the present system should be maintained. It provided the HKMA with some flexibility in responding to bank offers, while nevertheless obliging the HKMA to be fully accountable by immediately publicising any currency board operations. Members agreed that there would be scope to review this arrangement again, should the need arise. Members confirmed, for the avoidance of doubt, that the convertibility undertaking rate on the weak side would remain at 7.80 from 12 August. (2)

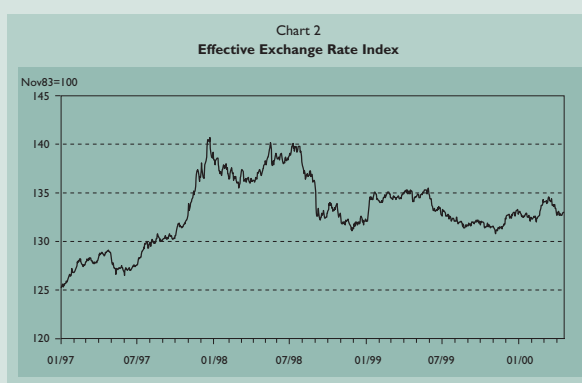
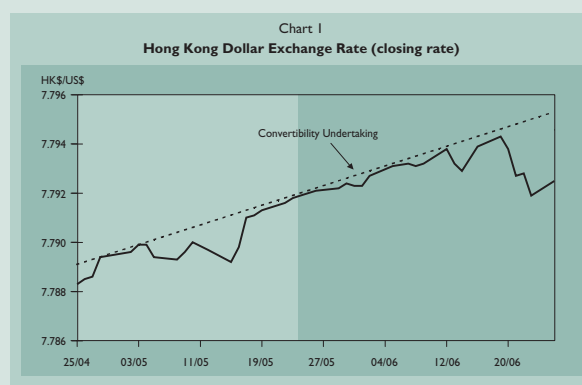
REPORT ON CURRENCY BOARD OPERATIONS (25 MAY - 26 JUNE 2000)

The market exchange rate for the Hong Kong dollar eased slightly from 7.7919 to 7.7925 during the reporting period. It tracked closely the movement of the convertibility rate in respect of the Aggregate Balance in the first half of the period. The Convertibility Undertaking was triggered in mid-June and the Aggregate Balance shrank into negative territory, leading to a firming of local interest rates. Towards the end of the reporting period, the market exchange rate strengthened noticeably on the back of increased demand for Hong Kong dollar assets. The exchange rate closed at 7.7925, 28 pips stronger than the convertibility rate. The monetary base rose marginally from HK\$204.19 bn to HK\$205.18 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 alongside the convertibility rate in respect of the Aggregate Balance during the first half of the reporting period, partly due to the soft Hong Kong dollar interest rates. Some outflows of funds were seen in mid-June, and the Convertibility Undertaking was triggered in the London market on 12 June. The HKMA bought a total of HK\$585 mn under the Convertibility Undertaking and the Aggregate Balance shrank into negative territory, while Hong Kong dollar interest rates edged up accordingly. As a result, the Hong Kong dollar exchange rate strengthened to 7.7929 on 14 June before easing to 7.7943 on 19 June.

Towards the end of the reporting period, the exchange rate strengthened considerably relative to the convertibility rate, on the back of strong demand for Hong Kong dollar assets, reported to be equity related. In response to bank offers, the HKMA sold a total of HK\$779 mn on 22 June, and the exchange rate eased marginally. Nevertheless, the exchange rate soon regained strength and reached 7.7919 on 23 June amid continued strong demand for Hong Kong dollar assets. In response to bank offers, the HKMA sold another HK\$390 mn on 26 June, and the exchange rate eased to close at 7.7925 at the end of the period, 28 pips stronger than the convertibility rate (Chart 1 and 2).



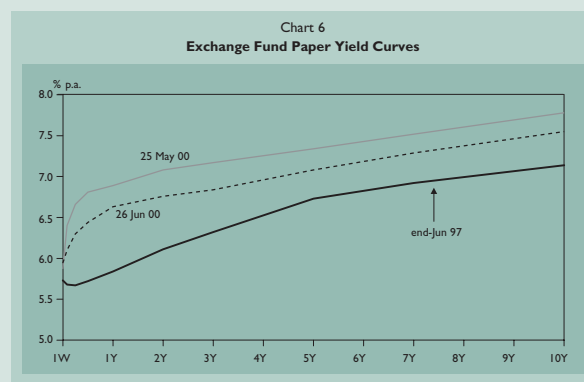
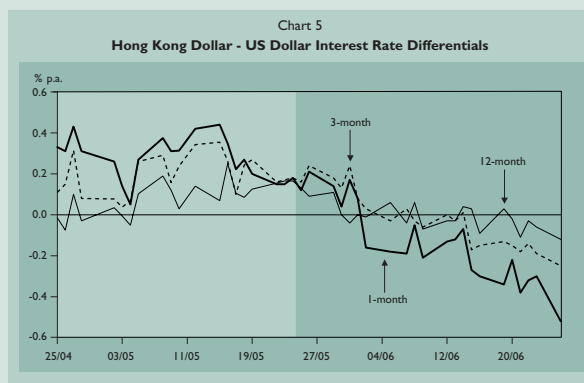
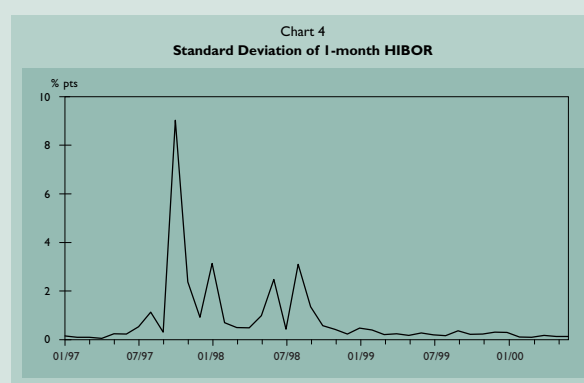
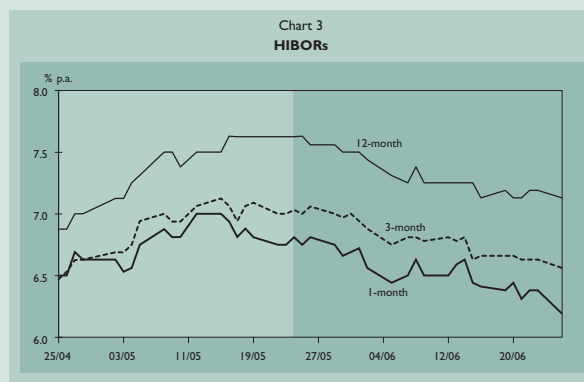
Interest Rates

Interbank interest rates moved on a general downtrend during the reporting period, partly due to alleviated concerns over another US interest rate hike in the June Federal Open Market Committee (FOMC) meeting. 1-month HIBOR eased from 6.75% on 25 May to 6.44% on 5 June. It then edged up to reach 6.63% on 14 June as interbank liquidity fell to a negative level of HK\$0.11 bn on the back of some outflows of funds. Subsequently, as interbank liquidity returned to a positive level, 1-month HIBOR eased gradually to close at 6.19% at the end of the reporting period. 3-month HIBOR followed a similar pattern, easing from 7% to 6.56%. 12-month HIBOR also eased from 7.63% to 7.13% during the reporting period (Chart 3).

Interest rate volatility, measured in terms of the standard deviation of 1-month HIBOR (Chart 4), increased slightly from 0.12 percentage points in May to 0.13 percentage points in June (up to 26 June).

Reflecting the downward movements of Hong Kong dollar interbank interest rates, the positive spreads between Hong Kong dollar and US dollar interbank rates diminished and turned negative in early June. The spread in respect of 1-month rates, which stood at 12 bp at the beginning of the reporting period, turned negative in the first week of June and widened to -21 bp on 9 June before narrowing to -7 bp on 14 June as interbank liquidity shrank. Towards the end of the reporting period, however, the spread widened again on the back of increased interbank liquidity and closed at -52 bp at the end of the reporting period. Likewise, the positive spread between 12-month Hong Kong dollar and US dollar interbank rates diminished and moved to negative territory, closing at -12 bp at the end of the 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 26 bp and 23 bp to 7.08% and 7.55% respectively. The yield spread between 5-year and 10-year Exchange Fund paper and US Treasuries widened by 12 bp and 6 bp, to 62 bp and 125 bp respectively on 26 June (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 authorized institutions for 1-month time deposits (which are outside the Interest Rate Rules) decreased from 6.74% on 19 May to 6.44% on 16 June. The effective deposit rate¹ increased from 4.52% in April to 4.75% in May (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 marginally from HK\$204.19 bn on 25 May to HK\$205.18 bn on 26 June** (Table 2). Movements in the individual components are discussed below.

Certificates of Indebtedness

Probably reflecting 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\$0.48 bn in exchange for HK\$3.75 bn worth of Certificates of Indebtedness (CIs) between 25 May and 5 June. The NIBs then redeemed a total of HK\$3.84 bn in exchange for US\$0.49 bn during the rest of the reporting period. As a result, **the outstanding**

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

	27-Jun-97	25-May-00	26-Jun-00
3-month	56	73	36
1-year	21	61	35
3-year	3	21	15
5-year	27	50	62
10-year	54	119	125

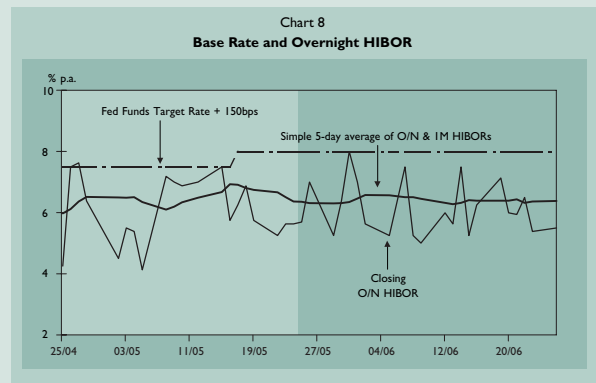
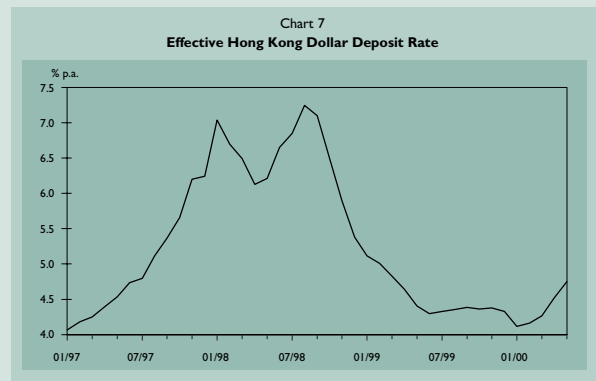


Table 2
Monetary Base

(HK\$ bn)	25-May	26-Jun
CIs	93.31	93.22
Coins in Circulation	6.04	6.01
Aggregate Balance	0.43	0.63
Outstanding EFBNs	104.42	105.33
Monetary Base	204.19	205.18

¹ 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.

amount of CIs decreased from HK\$93.31 bn to HK\$93.22 bn in the reporting period (Chart 9).

Coins

The total amount of coins in circulation decreased marginally from HK\$6.04 bn to HK\$6.01 bn during the period (Chart 10).

Aggregate Balance

The **Aggregate Balance increased from HK\$0.43 bn to HK\$0.63 bn during the reporting period.** Reflecting the purchase of a total of HK\$0.59 bn by the HKMA under the Convertibility Undertaking on 12 June, the Aggregate Balance fell to a negative level of HK\$0.11 bn on 14 June. Thereafter, as the HKMA sold a total of HK\$0.78 bn on 22 June in response to bank offers, the Aggregate Balance rebounded to a positive level of HK\$0.63 bn. Reflecting the HKMA sale of another HK\$0.39 bn in response to bank offers on 26 June for settlement on 28 June, the forecast Aggregate Balance (as of 26 June) for 28 June increased to HK\$1.03 bn (Table 3 and Chart 11).

During the period, a total of **HK\$0.68 bn of interest payments on Exchange Fund paper were made**, while an additional **HK\$0.66 bn (market value) of Exchange Fund paper was issued to absorb these interest payments.** The remaining amount was carried forward in the Aggregate Balance.

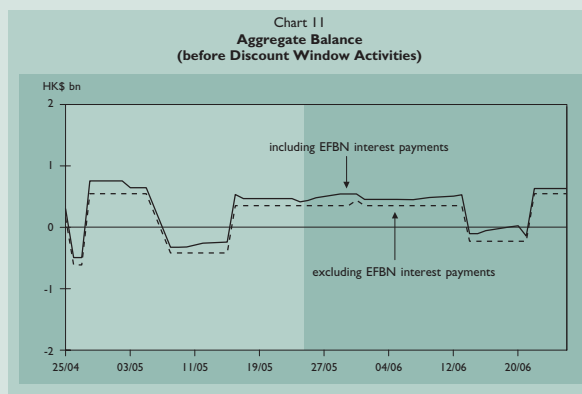
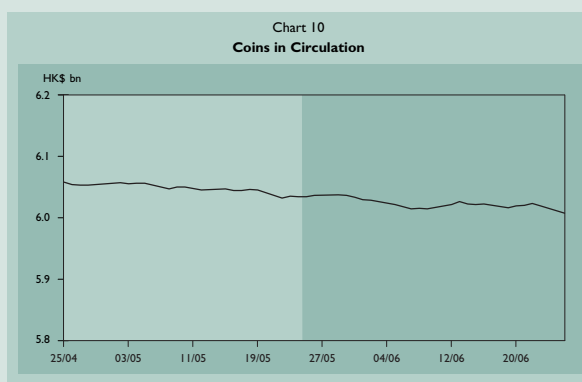
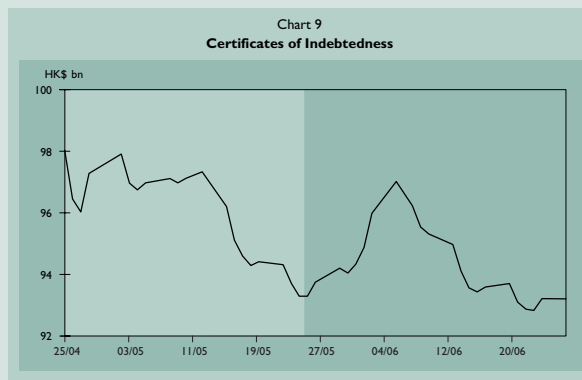


Table 3
HKMA Hong Kong Dollar/US Dollar
Foreign Exchange Transactions*
(25 May – 26 June)

Trade Date	Net Hong Kong Dollar Purchase (+) / Sale (-) (HK\$ mn)
12 Jun	+585
22 Jun	-779
26 Jun	-390
Total	-584

* 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\$104.42 bn to HK\$105.33 bn.** The increase was mainly a result of additional net issues (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 the banking sector before discount window activities increased during the period,** from HK\$89.45 bn (or 85.7% of total) on 25 May to HK\$91.49 bn (or 86.9% of total) on 26 June (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 collateralized against Exchange Fund paper. Given a relatively low level of interbank liquidity, Discount Window borrowing remained high during the reporting period. For the period as a whole, **banks in total borrowed HK\$7.70 bn** from the HKMA, compared with HK\$8.46 bn in the preceding period. All except one of the borrowings used Exchange Fund paper as collateral (Chart 13).

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

Table 4
**Issuance of Exchange Fund Paper
(25 May – 26 June)**

	No. of Issues Launched	Over-Subscription Ratio
1-month EFB	3	1.88-5.29
3-month EFB	4	2.25-2.62
6-month EFB	2	3.00-3.05
12-month EFB	1	4.40
5-year EFN	1	6.02
10-year EFN	1	3.96

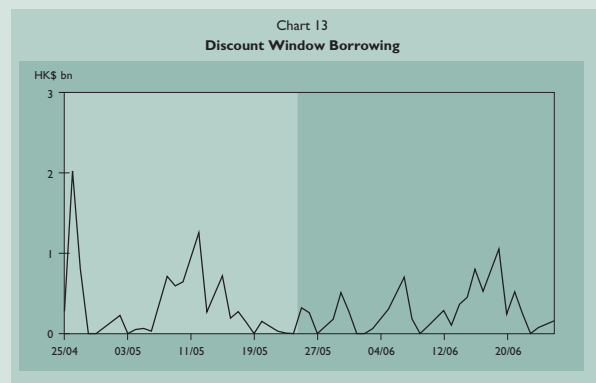
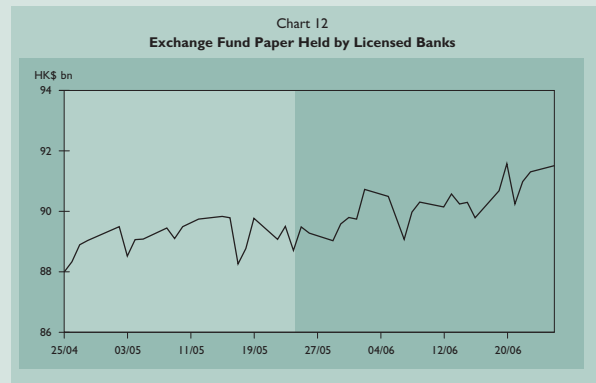


Table 5
**Frequency of Individual Bank's
Access to the Discount Window
(25 May – 26 June)**

Frequency of Using Discount Window	No. of Banks
1	20
2	6
3	1
4	2
>4	2
Total	31

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% on 25 May to 110.47% on 26 June (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. 🌀

