THE INTEREST RATE STRUCTURE IN HONG KONG

With monetary policy directed towards maintaining an exchange rate linked to the US dollar, domestic interest rates in Hong Kong are primarily influenced by interest rates in the US. As monetary policy instruments have been refined and the exchange rate link has gained credibility, the wholesale rates in the two economies have become very closely entwined. Notwithstanding the setting of maximum rates for some deposits, movements in wholesale rates are in turn quite rapidly reflected in domestic retail rates.

Introduction

The interest rate is a crucial component of the monetary policy transmission mechanism, both within and between economies. However, outside the textbook there is not just 'the interest rate', there is a range of interest rates. Policy operates by affecting the level of interbank liquidity and thereby influencing the interest rate in short-term professional money markets and hence the exchange rate. The level of investment, on the other hand, responds to banks' business lending rates (as well as itself being influenced by the exchange rate). The housing market responds to mortgage rates while consumer spending responds to credit card and personal loan rates and to retail deposit rates. This article discusses the determination of major Hong Kong interest rates, as well as the inter-relationship among various types of interest rates.

Interest Rates and the Exchange Rate

When considering interest rates in Hong Kong, one has to recognise three characteristics of the Hong Kong economy.

Firstly, Hong Kong is extremely open without any kind of foreign exchange control. Funds, regardless of their origins, are free to enter and exit the Territory at their owners' discretion, with the minor exception of those countries under United Nations sanctions. The cross-border movement of funds in Hong Kong, therefore, is very responsive to the differential between domestic and foreign returns on funds and any expected changes in exchange rates.

Secondly, Hong Kong has a linked exchange-rate regime. Since October 1983, monetary policy has been directed to keeping the market exchange rate against the US dollar close to US$1: HK$7.8, which is the rate on which the currency board arrangement is based.

Such an exchange rate regime implies that Hong Kong's financial market is highly integrated with the world financial market, and in particular the US market. Many international funds managers, especially US dollar-based funds, would send money into Hong Kong whenever higher returns are available in Hong Kong, and vice versa. These cross border funds flows will only stabilise when expected returns on domestic and foreign financial assets of the same characteristics (such as maturity and risk) become sufficiently close to each other.

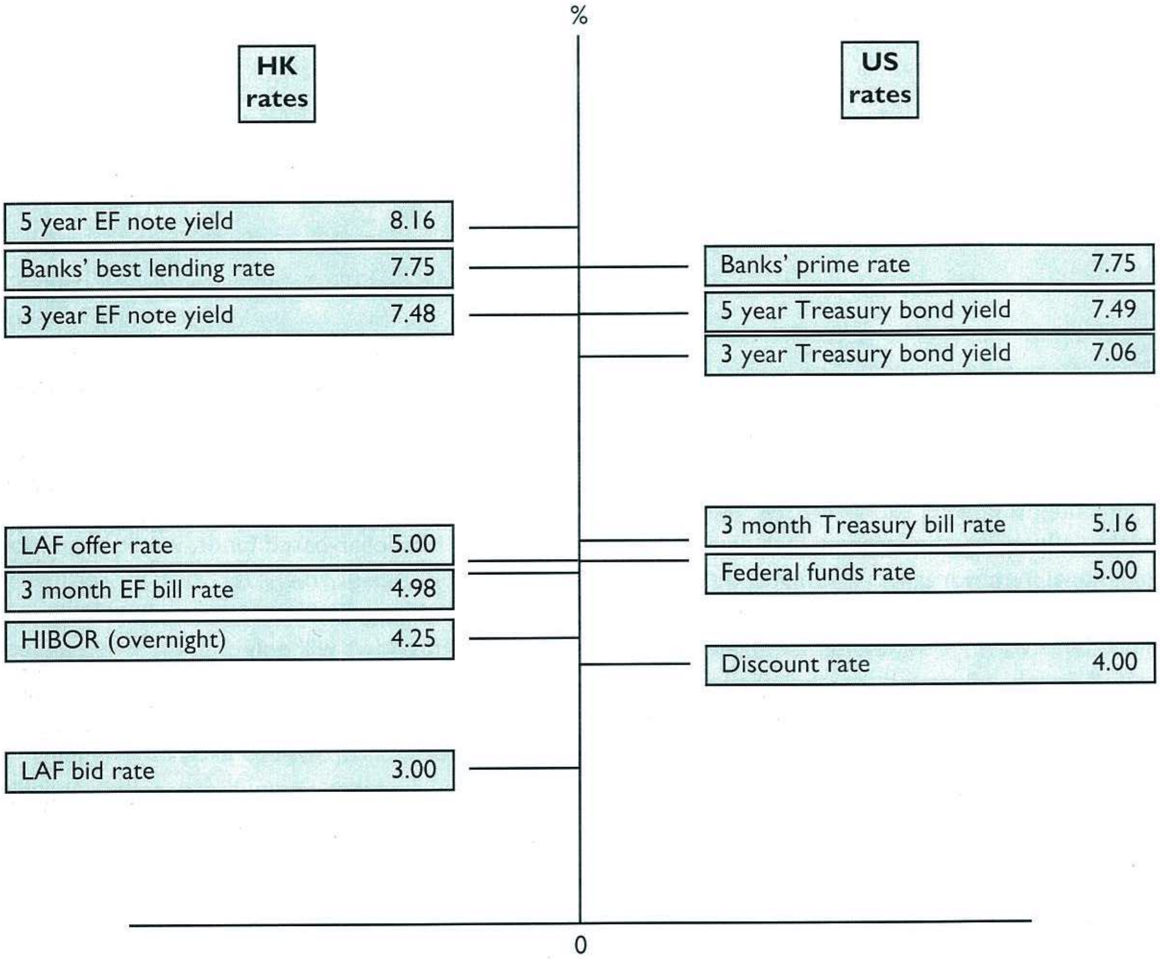
In the local money market, with its minimal administrative impediments, this "arbitrage" mechanism makes US interest rates the dominant factor in the determination of Hong Kong interest rates. From time to time other factors have also been important, such as when large amounts of funds have been parked in Hong Kong when there have been large share market flotations.

Thirdly, there are no statutory reserve requirements in Hong Kong. In many other economies, the existence of non-interest bearing statutory requirements impose a cost on banks, which are passed on in terms of higher interest rates. The absence of such statutory reserves in Hong Kong means that there are virtually no tax or government induced distortions between the US and Hong Kong interest rates.

Various Types of Interest Rates

While there are many prevailing interest rates in Hong Kong, most of them can be grouped into five major types, namely money market or interbank

Chart 1
Relationship with US Rates as at 31 October, 1994



rates, Liquidity Adjustment Facility (LAF) rates, yields on Exchange Fund (EF) bills and notes, deposit rates and lending rates. Chart 1 shows how these rates compare with their US counterparts (as at 31 October).

(i) Money market or interbank rates

In the interbank market, financial institutions with surplus funds lend to those short of funds. The maturity can last from one day to twelve months. According to recent HKMA surveys, over 90% of the inter-bank transactions in terms of value have a maturity of one month or less.

Interbank interest rates are basically determined by the forces of supply and demand. However, given the open capital account and the credible linked exchange rate system, the supply of funds in the interbank market is highly interest-rate elastic. Any significant difference between local interbank rates and comparable foreign – practically represented by the US – interest rates would spur a cross-border movement in funds and, given the linked exchange rate system, change the supply of funds in the local money market. Such market adjustments would push the local interbank rates close to the corresponding US rates. Chart 2 compares the one-month Hong Kong interbank offer rate (HIBOR) with the corresponding US rate since 1983. The close association is evident, with the exception of short-lived divergences in 1984 and 1988, which were related to the debate over Hong Kong's constitutional arrangements after 1997 in 1984, and some US and European officials' criticism of Hong Kong's linked rate system against the background of a widening trade gap between the industrialised nations and Asian newly industrialised economies in 1988.

(ii) Bid and Offer Rates of the Liquidity Adjustment Facility (LAF)

The 'Accounting Arrangements' enable the HKMA to influence the level of interbank liquidity through money market operations.[1] The LAF, introduced in June 1992, is Hong Kong's version of the official discount window. The Bid and Offer Rates of the LAF are determined by the HKMA with a spread currently at two percentage points. Banks can place surplus liquidity with the HKMA at the bid rate and obtain liquidity from the HKMA on a secured basis through a repo arrangement on Exchange Fund paper and certain high-quality debt instruments at the offer rate. The LAF rates generally form the floor and ceiling for the overnight interbank interest rate[2] (Chart 3). By thus containing the volatility of the interbank rate, the LAF mechanism helps to reduce the volatility of the exchange rate.

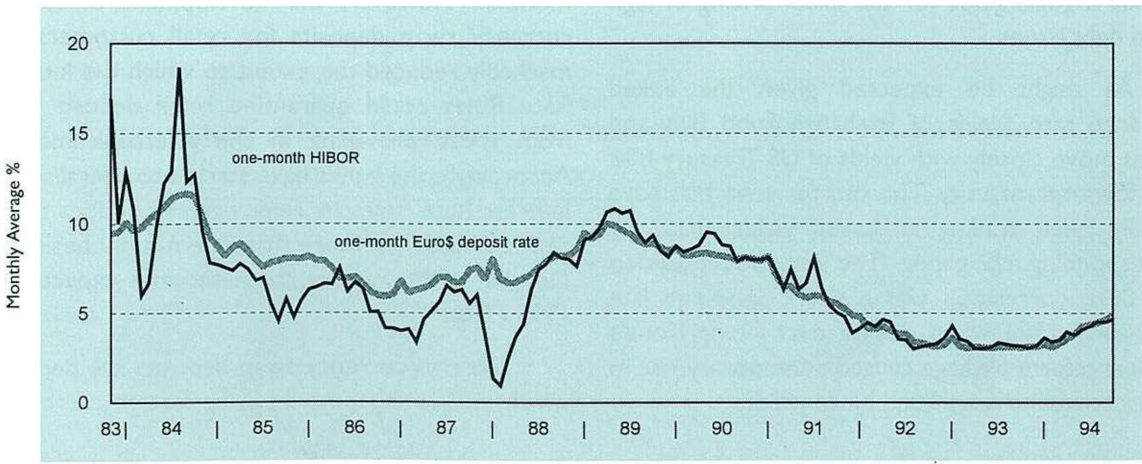
The HKMA normally adjusts the LAF rates with close reference to movements of US interest rates. A change in the US discount rate will generally be followed by a corresponding move in the LAF Bid and Offer Rates. If only the Fed funds rate is changed, the relatively wide band between the LAF Bid and Offer Rates may allow the LAF rates to remain unchanged.

(iii) Exchange Fund Bills and Notes Yields

In recent years, the gradual development of debt markets has helped to extend the term structure of money market interest rates. However, there were no benchmark longer term interest rates. At the beginning of 1990, the Exchange Fund Bills programme was commenced. Exchange Fund Bills and Notes are equivalent to central bank bills in other parts of the world and are a liability for the account of the Exchange Fund. The primary justification for the programme is the provision of an instrument for money market operations. Since September 1994, the programme has been extended to notes with a five-year maturity. Some of the notes mature after the return of Hong Kong to Chinese sovereignty. It is a sign of confidence in Hong Kong's future that the slope of the yield curve does not steepen after June 1997.

Chart 2

Hibor and Euro$ Deposit Rates (Monthly Average, Oct 83 – Aug 94)

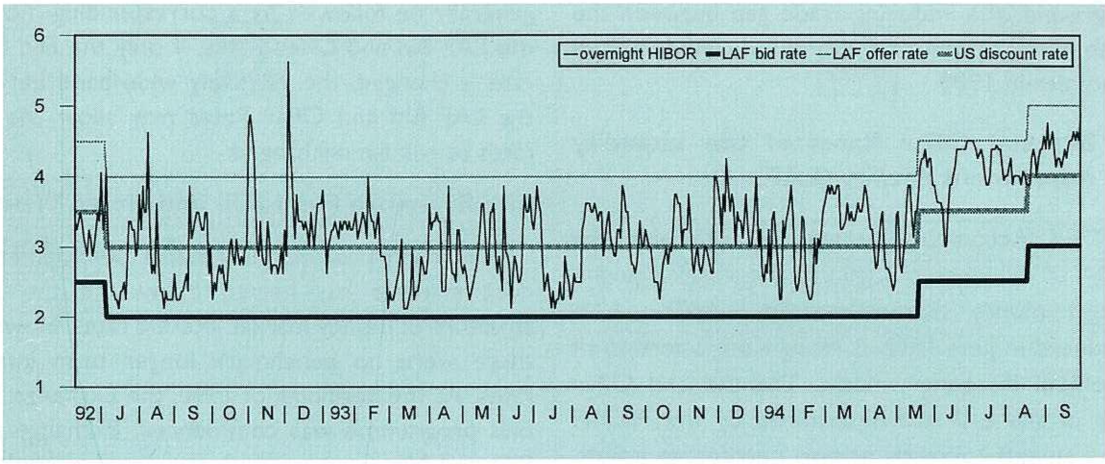


Source: REUTERS

1 The management of interbank liquidity is the subject of another article in this issue of the *Quarterly Bulletin*.
2 The exceptions in 1992 were due to several large share flotation exercises.

Chart 3

Overnight Hibor, LAF Rates and US Discount Rate (Daily Rates, 8 Jun 92 – 31 Aug 94)



Source: HKMA, REUTERS

Although the amount of Exchange Fund Bills and Notes is still relatively small compared with interbank fund transactions, their high creditworthiness and the market making system[3], produce a very active secondary market in them. As more longer term notes are issued, they can potentially serve as a benchmark for trading in other longer term HK dollar securities. So far, such trading has been quite thin and recorded yields for many AAA borrowers are significantly above those for the Exchange Fund Notes. (See Chart 6 on p.46) In the future, yields on the Notes may provide a good guide for the initial pricing of high grade debt issues.

As might be expected given the linked exchange rate, yields of Exchange Fund Bills and Notes move closely with yields of US Treasury Bills with identical maturity. The shorter term bills have actually been trading at lower yields than the corresponding US paper. The only exception to this close correlation was a short period in late 1992-early 1993 when debate over Hong Kong's political reform package caused a temporary rise in longer term Exchange Fund Note yields.

(iv) Customer deposit rates

There are two sub-sets of customer deposit rates, with a distinction between Hong Kong Association of Banks (HKAB) administered (or retail) deposit rates and non-HKAB administered (or wholesale) deposit rates.

Historically, under the 'Interest Rate Rules', the Committee of HKAB is authorised to determine maximum interest rates paid by licensed banks to customers on HK dollar deposits of less than HK$500,000 and with a maturity of less than 15 months.[4] However, the development of foreign currency swap deposits for retail customers has markedly reduced the extent to which the Interest Rate Rules could quarantine retail deposit rates from those prevailing in the interbank market. Accordingly, the banks have started to liberalise the Interest Rate Rules by removing restrictions on all deposits fixed for more than one month, beginning October 1994. Further liberalisation is expected in 1995 (Table 1).

Foreign currency swap deposits are deposits which involve customers buying foreign currencies

3 For details of the market making system for Exchange Fund bills and notes, see J. Yam, "Central Banking and Monetary Policy in Hong Kong", in *The Practice of Central Banking in Hong Kong*, Hong Kong Monetary Authority, 1994.

4 For a discussion of the Interest Rate Rules, see *Study on the Consumer Council Report; "Are Hong Kong Depositors Fairly Treated?"*, Hong Kong Monetary Authority, July 1994.

Table I
Deregulation of HKAB Time Deposits

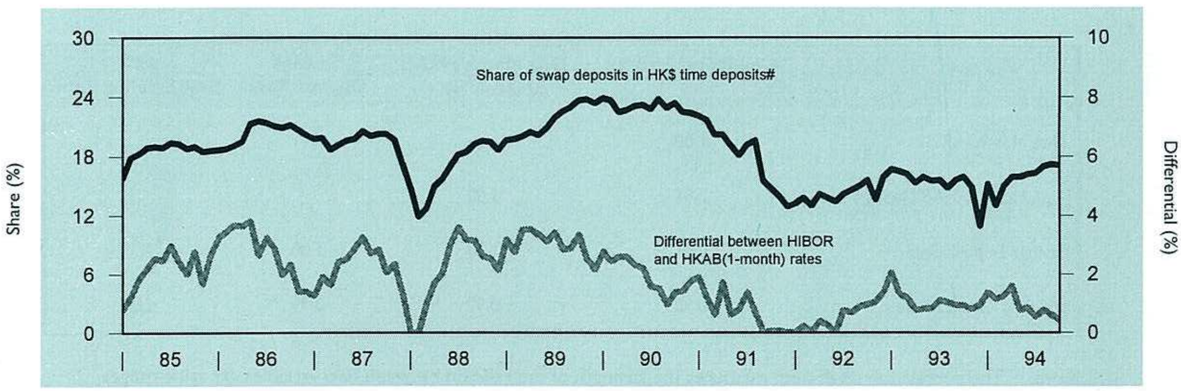
Type of Deposits	Date of Deregulation
All deposits fixed for more than one month	1 October 1994
All deposits fixed for more than seven days	3 January 1995
All deposits fixed for more than 24 hour call	1 April 1995
24 hour call deposits	The deposit cap will be cut from HK$500,000 to zero in stages during the rest of 1995. This would be subject to both HKAB and HKMA concluding, prior to each reduction, there is not likely to be any resultant instability in the monetary and banking systems.

in the spot market and placing them as deposits with authorised institutions, while at the same time entering into a contract to sell such foreign currencies forward in line with the maturity of such deposits. For most analytical purposes, they should be regarded as HK dollar time deposits. Authorised institutions in Hong Kong generally accept swap deposits with an amount as low as HK$30,000 and for maturities as short as seven days. Interest rates of swap deposits are based on interbank rates. Whenever the gap between interbank rates and HKAB-administered deposit rates widens there tends to be a shift from HKAB-administered deposits to swap deposits (Chart 4).

(v) Best lending rate

Best lending or prime rate is a benchmark interest rate offered by banks to most of their

Chart 4
Share of Swap Deposits in HK$ Time Deposits# (Dec 84 – Jul 94)



Adjusted to include Swap Deposits.

Source: HKMA, REUTERS

most credit-worthy borrowers. It is determined freely by individual banks, but by convention the note-issuing banks take the lead and the other banks follow suit. Changes in the best lending rate are usually announced at the same time as deposit rates determined by the HKAB. Some prime borrowers are instead charged rates tied to HIBOR.

Rates on most loans to households, especially for housing, tend to follow movements in the best lending rate. Credit card rates which, reflecting the nature of the product, are much higher, tend to be adjusted less frequently.

The Inter-relationship of Various Interest Rates

It has been explained in the above sections that changes in interbank rates lead to changes in deposit and lending rates, while the interbank rates themselves follow US interest rate trends given Hong Kong's specific monetary framework. A stylised representation of the transmission process is given in Chart 5.

A matrix illustrating the high degree of conformity between various interest rates in Hong Kong over the past ten years is presented in Table 2; all correlation coefficients have a value of more

Chart 5

Hong Kong Interest Rate Structure

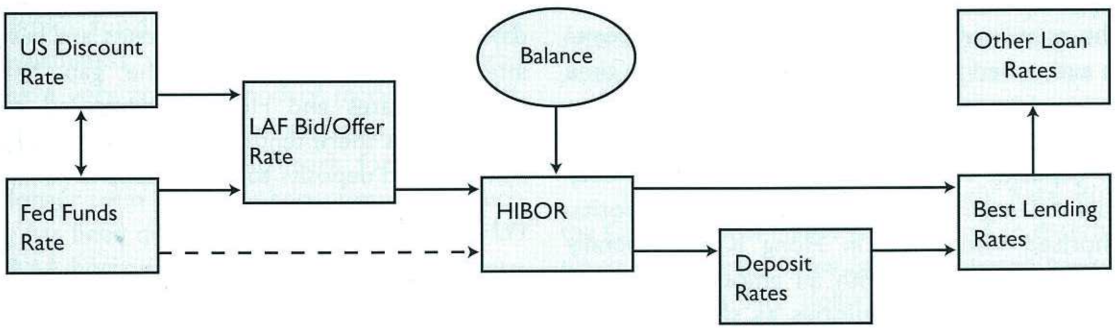


Table 2

Correlation Coefficients Between Various Hong Kong Interest Rates (Jan 84 – Aug 94)

	One Month HIBOR	One Month HKAB Deposit Rate	Savings Deposit Rate	HK Best Lending Rate
One Month HIBOR	1.00			
One Month HKAB Deposit Rate	0.91	1.00		
Savings Deposit Rate	0.91	1.00	1.00	
HK Best Lending Rate	0.90	0.99	0.99	1.00

Note: The correlation coefficient measures the strength of the relation between two variables. Its value ranges from + 1 indicating a perfectly positive relation and – 1 indicating a perfectly inverse relation.

Table 3
Correlation Coefficients Between Various Hong Kong and U.S. Interest Rates

	US Prime Rate			One Month Euro$ Deposit Rate		
	Jan 84 – Aug 94	**Jan 84 – July 88**	**Aug 88 – Aug 94**	**Jan 84 – Aug 94**	**Jan 84 – July 88**	**Aug 88 – Aug 94**
One Month HIBOR	0.87	0.80	0.98	0.83	0.81	0.98
One Month HKAB Deposit Rate	0.81	0.89	0.94	0.73	0.88	0.93
Savings Deposit Rate	0.82	0.90	0.94	0.74	0.88	0.93
HK Best Lending Rate	0.81	0.91	0.94	0.72	0.89	0.93

than 0.9. Table 3 shows that local interest rates have also been closely related to US interest rates, with correlation coefficients ranging from 0.72 to 0.87. As would be expected, the correlations are stronger for the market rates than for those set by the banks. The table also illustrates that the correlations have increased as the HKMA has developed a more complete monetary armoury. These reforms include the introduction of the Accounting Arrangements in July 1988, the issue of Exchange Fund paper since March 1990 and the introduction of the LAF in June 1992.

Concluding Remarks

The data examined in this paper show that in Hong Kong local interest rates closely follow their US counterparts. Furthermore, the monetary reforms implemented by the Government since 1988 have apparently strengthened the correlation. The closeness of domestic interest rates and those in the US is itself evidence that markets believe the exchange rate link will be maintained.

– Prepared by the External Department