THE PRACTICE OF CENTRAL BANKING IN HONG KONG

Hong Kong Monetary Authority
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1994
# The Practice of Central Banking in Hong Kong

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Preface

The practice of central banking in Hong Kong has evolved much over the past decade, with the watershed being the introduction of the linked exchange rate system in Hong Kong in 1983. A number of significant reform measures in the areas of monetary management and banking supervision were introduced. These have, I believe, contributed to the maintenance of monetary and financial stability in Hong Kong, and the continuing development of Hong Kong as an international financial centre.

In various speeches given by the senior executives of the Hong Kong Monetary Authority, we have explained quite clearly our approach to central banking and the policy perspectives behind the reform measures. The speeches generated considerable interest among the audience, which ranged from economists and professionals in the financial sector to academics and students in the tertiary institutions.

In order to disseminate this information on a wider basis and make the speeches available as a handy source of reference, we have compiled some of the main speeches made over the past two years into the present publication. I hope this will enable those who are interested in the subject to appreciate how we the practitioners view the practice of central banking in Hong Kong.

Joseph Yam
Chief Executive
Hong Kong Monetary Authority
Central Banking and Monetary Policy
in
Hong Kong

Joseph Yam

It is indeed a great honour for me to have been invited to give a speech to the Hong Kong Association of Banks. I have been attending these semi-annual dinners for many years and have listened to twice as many speeches by distinguished speakers. I have also been responsible for drafting a few of these speeches. Well, at last, it is my turn to draft and deliver my own. I therefore feel particularly grateful for this opportunity. But I must also confess a feeling of trepidation, as the local boy about to scale the dizzy heights in the world of monetary affairs, tasked with the responsibility to build and run the Hong Kong Monetary Authority in a way that befits and hopefully enhances Hong Kong's status as an international financial centre, while continuing to deliver monetary stability to Hong Kong.

TRIBUTE TO DAVID NENDICK

This is a tall order, but a fortune telling expert that I happened to see once offered me his wisdom that insofar as work is concerned, I am very lucky in the sense that I always receive excellent guidance and trust from others, to the extent that I often have my work cut out for me. This indeed has been the case, particularly in the past seven years, as deputy to David Nendick. I benefitted a lot from his guidance. Hong Kong benefitted a lot from his time as Secretary for Monetary Affairs. I wish, therefore, to take this opportunity to express my sincere thanks to him for all he has done for Hong Kong, particularly for the monetary and financial systems of Hong Kong. I shall miss him. I shall miss his counsel. I shall miss going to David with a complex issue and expect, and get, an answer within two minutes. I shall miss dumping rubbish in his IN tray and retrieve a masterpiece from his OUT tray the next day. Very soon, I shall be left on my own. I can, of course, try and locate that fortune telling expert again. But I am acutely conscious of the fact that if I do so, it will be at my own expense, both literally and figuratively; for, whilst the fortune telling expert is of good entertainment value, he is on the one hand expensive and on the other hand totally ignorant about monetary issues, and about how to build and run a monetary authority.

Mr. Joseph Yam is the Chief Executive of the Hong Kong Monetary Authority
The speech was given to the Hong Kong Association of Banks on 4 December 1992
Fortunately for me, under the guidance of David, many of the building blocks have already been put in place in the past five years or so, in the form of the monetary reform measures taken. All that is left for me to do now is in effect to ensure that we are in a position to perform the duties arising therefrom, with a high degree of professionalism and continuity, in the lead up to 1997 and beyond, in a manner that commands the confidence of the people of Hong Kong and the international financial community.

HONG KONG MONETARY AUTHORITY

Bearing in mind that this is the aim, the immediate task is to oversee a simple reorganization involving the merging of the Office of the Exchange Fund and the Office of the Commissioner of Banking, and for the resultant organization to take on the name of Hong Kong Monetary Authority and be given a greater degree of financial freedom. I am sorry if this prudently cautious, step-by-step approach to monetary reform has caused displeasure from some. Indeed, if this latest step is seen in isolation, one could well ask the question of “what’s in a name?” But seen in the context of the series of monetary reform measures taken in the past five years, it is I think the logical and necessary step.

As you are aware, a Bill to amend the Exchange Fund Ordinance has already been published and introduced last month into the Legislative Council. When enacted it will enable, on a day to be appointed by the Governor, the Hong Kong Monetary Authority to be formally established. I am very grateful for the Association’s support on the proposal. I am also very encouraged by the favourable comments expressed both in Hong Kong and abroad, and publicly and privately, by the financial community, including central banks and monetary authorities. I hope that the Exchange Fund (Amendment) Bill will have a smooth passage through the Legislative Council. Meanwhile, the rather mundane preparatory work involved in any merger of offices has begun. So far, internally, I sense an encouraging degree of enthusiasm from the staff concerned, looking forward to greater opportunities and a more interesting career, and aspiring to joining the rather more prestigious rank of central bankers with a willingness to excel in a way that is commensurate with that brand name.

Externally, some, including surprisingly one or two politicians, have expressed the view that we are not going far enough and that we should go for an entirely independent central bank. I have serious doubts as to whether any central bank is entirely independent from its government. It is, of course, a matter of degree. But the real issue I think is the argument used by some that independence is necessary to safeguard monetary management against political
interference. On this, surely, one should first assess whether, under our proposed arrangements, there is scope for political interference. I think not.

It is for the Financial Secretary to determine the objective of monetary policy and for the Office of the Exchange Fund currently and the Hong Kong Monetary Authority in future to deliver. There has never been any serious pressure to influence monetary management for achieving political or economic objectives at the expense of the prime monetary policy objective of exchange rate stability laid down. In any case, a monetary authority independent of government would not, under the Joint Declaration and the Basic Law, be able to make use of the Exchange Fund and therefore would be in no position to carry the responsibility of monetary management in any meaningful way.

Some have also called for the role of the Hong Kong Monetary Authority to be clearly defined. The Governor in his Policy Address, the Financial Secretary in his speech in the debate of the Policy Address and the Secretary for Monetary Affairs in his speech introducing the Exchange Fund (Amendment) Bill 1992 have all made one point very clearly. The establishment of the Hong Kong Monetary Authority, involving the merging of the Office of the Exchange Fund and the Office of the Commissioner of Banking, is for the purpose of ensuring a high degree of continuity and professionalism in what we have been doing. I think it is abundantly clear from this that the role of the Hong Kong Monetary Authority would be the same as those of the two existing Offices.

Central banking roles

But I quite understand that those who have not been following the development of our monetary arrangements closely could well be confused. Further to clarify this, therefore, I have, at Annex A of the printed version of this speech listed out all the usual central banking roles and described how those roles would be performed in Hong Kong with the establishment of the Hong Kong Monetary Authority. This will also serve to address the concern that others have on the possibility that the Hong Kong Monetary Authority might in time take on more and more, and be more interventionist to the detriment of financial businesses in Hong Kong. I would specifically want to say here that there is no intention whatsoever for the central banking roles that are not currently performed by Government to be assumed by the Hong Kong Monetary Authority. There are three such roles. First is the issue of bank notes. This will continue to be undertaken by the two note issuing banks, for as long as they are willing and able to do so, but possibly with the addition of the Bank of China, subject to satisfactory outcome of technical discussions currently taking place, to the further approval of timing by the Executive Council and the approval of the necessary legislation by the Legislative Council.
Central Banking and Monetary Policy in Hong Kong

Council. The Hong Kong Monetary Authority has no interest in issuing bank notes. It is in any case not a bank. And who issues bank notes is of no significance to monetary management in Hong Kong. The backing for the note issue is held with the Exchange Fund and can be used for the purpose of the Fund. The seigniorage of the bank note issue also accrues to the Exchange Fund. This has always been the case and will continue to be so.

Second is the running of the interbank clearing system. This is a matter that has been satisfactorily handled by the Clearing House of the Hong Kong Association of Banks for many years. I understand that there have, nevertheless, been suggestions for introducing alternative arrangements, although the reasons have never been clearly spelt out. It will be useful if they are, and the benefits of change also clearly identified, before they can be sensibly discussed. The Monetary Authority will have an interest in the matter insofar as it has implications for the stability and integrity of the interbank system. It will also have an interest from a macro monetary management point of view, but this is limited to the settlement aspect of the interbank clearing system so that there is effective control over the level of interbank liquidity. We already have that in the form of the Accounting Arrangements between the Management Bank of the Clearing House of the Hong Kong Association of Banks and the Exchange Fund.

Third is the provision of retail banking services to the Government. Again we have no interest in this. These are services best provided by commercial banks. Although it is traditional for central banks and monetary authorities to handle the main revenue and expenditure streams of the government, I am of the view that this is a matter that they should best avoid. There is of course the possibility, however remote, that the central bank or the monetary authority might be forced into creating money to finance expenditure shortfalls, in view of the greater ease of doing so when the central bank is the banker to the government. But a much more important argument for not taking on such a role is that daily surpluses or deficits in the public finances will have a direct impact on the level of interbank liquidity. If monetary conditions are not to be affected by these daily surpluses and deficits, then the central bank or the monetary authority will have to take action to neutralize the effects in the interbank market. This creates totally unnecessary work involving money market operations every day, and risks sending confusing signals to the market.

Check and Balance

Although the Hong Kong Monetary Authority will not be taking on
additional central banking roles, the proposed amendments to the Exchange Fund Ordinance will give it a higher degree of flexibility in acquiring the necessary professional skills than that accorded to the existing two Offices now. There should correspondingly be suitable checks and balance. We have always accepted this and have taken suitable initiatives. The monetary reform measures introduced in the past five years have all been characterized by as high a degree of transparency as is practicable. All our money market operations are conducted openly and announced instantaneously on our screens for all to see. This is a rather unusual practice by international standards. We have earlier this year also voluntarily published the accounts of the Exchange Fund. We have a very stringent audit system involving a team working to the Director of Audit stationed permanently in the Office of the Exchange Fund conducting what is known as a continuous audit.

We are also responsible to the Exchange Fund Advisory Committee chaired by the Financial Secretary. All major policy and operational issues are considered by the Committee. With the establishment of the Hong Kong Monetary Authority, the Financial Secretary intends additionally to submit the budgets of the Authority to the Committee for its consideration. There will also be close guidance and monitoring by the Committee through monthly instead of quarterly meetings. Membership of the Committee will also be suitably expanded. More experts in the financial sector will be appointed to the Committee. The Committee will in effect operate as a managing board.

The Hong Kong Monetary Authority will publish an annual report on its activities and the report will be laid before the Legislative Council. As Chief Executive (Designate) of the Hong Kong Monetary Authority, I would like to make a clear commitment to conducting the affairs of the Authority in as open and fair a manner as possible. Our market operations will also be as transparent as possible, as long as their effectiveness would not be undermined.

Monetary policy

Let me turn to monetary policy. It is important first to define the monetary policy objective. In other parts of the world, there seems to be a considerable degree of consensus that one important objective of monetary policy is price stability, although economic growth and the creation of employment have often been prominently mentioned as well. But behind this consensus there is still currently much debate on two counts. First is whether or not the term "price stability" as a monetary policy objective is in fact too vague. Because there is often no clear, quantitative goal as to the actual rate of inflation that is acceptable, there is the inevitable temptation, perhaps for political reasons, to divert monetary policy towards the other objectives. Central banks and
monetary authorities are then forced to switch their emphasis from one objective to another or worse still to try and achieve multiple objectives at the same time. As with most good things in life you cannot unfortunately have all that you want. So you end up achieving none. As a result there is regrettably a low degree of credibility in what some central banks do.

Second concerns the choice of intermediate targets. As you can observe there has been a proliferation in the past twenty years of definitions of the monetary base or the money supply as an intermediate target. Along with this is a corresponding proliferation of econometric studies relating the intermediate target to the monetary policy objective or some proxies of it. Many of the econometric equations produced in these studies indeed exhibit stable relationships. But in practice when an intermediate target is identified from these equations as the basis for monetary policy operations, that stable relationship almost immediately collapsed. This is the famous Goodhart's Law. Indeed, money, like water, flows around obstacles established to obstruct its movement. As a result, and notwithstanding events in Europe in the last three months, the exchange rate has increasingly been used as the intermediate target. Countries are prepared to accept a concession of their sovereign right over monetary policy to the central bank of the currency to which their own currencies are anchored. Other countries have dropped their intermediate targets altogether. To restrain inflation, central banks in these countries use their powers over interest rates to hit at the profits of businesses and the pockets of consumers, making them poorer so that they do not spend so much and push prices up so rapidly.

So what about Hong Kong? Learning from the experience in other parts of the world, we must be realistic not to set ourselves multiple objectives that we could not possibly achieve. Further, whatever objective we set for ourselves, it must be clear; and our monetary policy operations, whether or not involving an intermediate target, must also clearly be directed towards achieving that objective. In other words, there must be clarity of purpose and practice in monetary policy, and the objective consistently and resolutely pursued. This is the important basis for a credible policy. Credibility of monetary policy is furthermore crucial when one is talking about an economy that is highly externally oriented, with a monetary system highly exposed to external influence through globalized financial markets, and a strong, legal commitment to the absence of exchange controls, to the free flow of capital and a freely convertible currency.

There is, of course, still scope for debate as to what our monetary policy objective should be. There is a clear danger of following dogmatically practices elsewhere and risking the same painful mistakes. We must look at
our own special circumstances and adopt a policy objective that is in the best interest of the community. Hong Kong is in transition. The provisions for transition in relation to the change of sovereignty are clearly laid down in the Joint Declaration and are familiar to you all. Hong Kong is also going through rapid economic transformation, arising from and catering for the take-off in the economy of China, in particular the southern provinces. This transformation is more rapid than any of us could have imagined. When there is change, particularly rapid change, there are opportunities and there are risks.

The opportunities are clear. When you are sitting in the middle of the fastest growing area in the world, it is difficult not to notice these opportunities. The risks are perhaps less clear. Economic liberalization in China involves the opening up of markets on the one hand and the dismantling of discretionary controls on the other. They need to be suitably synchronized. If they are not, then the process of economic liberalization could breed social discontent and give rise to abuses. The consequences could well take the form of disruptive events, causing shocks which would be felt more so in Hong Kong than in any other part of the world outside China.

Against this background, which is very much specific to Hong Kong, what monetary policy objective, if achieved, would enable Hong Kong to maximize the opportunities and minimize the risks? The answer is quite clear to me. The policy objective should be exchange rate stability against a currency that we all know and in which the majority of our external transactions are denominated, directly or indirectly.

Exchange rate stability facilitates external trade in goods and services, and contributes to the prosperity of Hong Kong. Surely it is much easier to do business when you do not have to worry too much about currency risks. Exchange rate stability is a crucial element for the stability of Hong Kong. Had we just wavered in our determination to maintain exchange rate stability, what would have happened to the Hong Kong dollar during the stock market crash in October 1987, the events in China in June 1989, the Gulf war, the BCCI induced bank runs last year and the ERM turmoil in recent months? I dread the thought. If we should waver, we could easily find ourselves in a situation where the exchange rate could move sharply as a result of trivialities.

I can assure you that this is not just the Administration being stubborn. This is the view taken on the basis of continuous research into monetary policy operations in other parts of the world. This is clearly the collective view of the Exchange Fund Advisory Committee in which monetary policy is routinely discussed. This is the view of the International Monetary Fund, expressed to us in annual Article IV consultations, the latest of which was
concluded just last month. This is the view of a number of central banks with which we have close contacts. This is common sense.

We must accept and not forget, however, that there are costs involved. Although the US dollar is by far the most important currency in which our external transactions are denominated, economic conditions in the US may at times dictate a level of interest rate that is not entirely suitable for Hong Kong's circumstances. We have no freedom for using interest rates to affect anything other than the exchange rate, for example, inflation. As a result, the burden of moderating inflation falls on the fiscal side and, to the extent that we have an influence, on the supply of resources. Whilst I would not wish to underestimate the harmful effects of inflation, I do think that the benefits of a stable exchange rate far outweigh the costs.

I can almost hear the suggestion that exchange rate stability could be against a basket of currencies rather than just the US dollar. But what is the point of moving to a basket if it would not give us any more freedom to use interest rates to curb inflation? One can of course include only currencies with high interest rates in the basket, regardless of Hong Kong's external trade pattern. But what would then be the effects on our economy of such a policy? And what if the interest rates of these currencies fall or Hong Kong's economy becomes so depressed as to require lower interest rates? Does one then change the composition of the basket and risk the further lost of credibility? What would be the effect on businesses if the exchange rate against the US dollar is now to fluctuate every second in the day and there is stability only against an imaginary basket which cannot be traded in practice or hedged conveniently?

Thus realistically our monetary policy objective should be exchange rate stability against the US dollar at the fixed rate of HK$7.80 = US$1. Because the objective and the intermediate target are the same, Goodhart's Law does not apply, and Professor Charles Goodhart who is on our Exchange Fund Advisory Committee is only too happy that this is so. There is clarity of purpose and there is clarity of practice. All our monetary policy operations are aimed primarily at achieving exchange rate stability.

**Monetary Reform**

If you accept this, then it is not difficult to appreciate the rationale behind what we have done in the past, what we are trying to do now and what, if anything, we may do in the future.

Our task is to deliver exchange rate stability to Hong Kong. We take this
task seriously. We have, of course, the linked exchange rate system established in October 1983 and it has worked well for Hong Kong. But we all know that no system is perfect. It would be prudent, therefore, to examine continuously whether we are in a position to deliver. And that includes looking into whether our monetary system is sufficiently robust to withstand shocks and whether our monetary management is effective. If monetary arrangements that would enhance our ability to deliver exchange rate stability are identified, there should be no hesitation to have them implemented. This has been, and will continue to be, the spirit with which we approach our task.

For the record, at Annex B of the printed version of this speech is a technical summary of the reform measures we have introduced to our monetary arrangements in the past five years. They were all aimed at strengthening our monetary system and making monetary management more effective. As you can well appreciate, to maintain a fixed exchange rate, it is essential that interest rates, particularly the money market interest rates, ought to be flexible in both directions, to the extent necessary to discourage and counteract deviations of the exchange rate from the fixed level.

This was why the Committee of your Association exercised its authority under section 12(1) of the Hong Kong Association of Banks Ordinance, and after consultation with the Financial Secretary, made the Specified Rate Rule at the end of 1987 and amended the Rules on Interest Rates to include Deposit Charges at the beginning of 1988, amidst speculation on a revaluation of the Hong Kong dollar. These had the effect of removing the floor for interest rates, and incidentally is one strong reason for keeping the Association’s Rules on Interest Rates. Correspondingly, the Administration also in 1988 introduced suitable amendments to the Money Lenders Ordinance to remove the ceiling for interest rates for bank transactions. Interest rates are, therefore, fully flexible in both directions.

In this connection, it should be noted that, under the linked exchange rate system, there is no upper or lower limit around 7.80 within which the exchange rate is to fluctuate. Unlike the ERM, there are no such limits by reference to which there is an undertaking to defend, and therefore no clear targets for the speculators. What is clear is our rule for monetary policy operations. Any significant exchange rate differential from 7.80 will be matched by an interest rate differential, perhaps to an exponential degree. That is why we need a flexible interest rate structure.

Within that flexible structure, changes in interest rates will still need to be brought about by deliberate action, when there is a need to do so. We now have a choice of doing so indirectly by influencing the size of interbank liquidity, through the Accounting Arrangements introduced in 1988, making
use of the Exchange Fund Bills introduced at the beginning of 1990 as an instrument. Alternatively, we can exercise a more direct influence through changing the bid and offer rates of the Liquidity Adjustment Facility introduced earlier this year.

I hope these reform measures, spanning a period of five years, form a coherent picture to you. They are meant to be. The Hong Kong Monetary Authority is the frame for that picture, and I hope a secure one, so that the pieces do not fall apart for lack of professional care. There are no missing pieces that I can identify at the moment, although the picture itself may need touching up here and there over time. For example, the fact that overnight HIBOR occasionally exceeds the offer rate of the Liquidity Adjustment Facility may be an indication that we need to issue more Exchange Fund Bills for banks to hold and use for requesting late liquidity assistance. This is being actively considered, but I feel that I have, at the same time, to urge some individual banks to review whether their treasury operations could do with greater care. I often see clearing accounts of banks in debit or in credit by quite substantial amounts day after day. I can appreciate the difficulties faced by banks. This is one reason why we do not wish to be the retail banker to the government. But from the information I have, it is obvious to me that some banks are much more skilful than others in their treasury operations.

THE CHINA DIMENSION

Before I stop, I would like to say a few words about the China dimension of our work. There are two aspects. The first concerns the implications of the Joint Declaration and the Basic Law on monetary developments in Hong Kong and the second concerns the monetary implications on Hong Kong of developments in China.

The Joint Declaration and the Basic Law spelt out the monetary ingredients important to the maintenance of stability and prosperity of Hong Kong. In doing so, these documents also define the ground rules for monetary developments in Hong Kong. The ground rules are clear, for example, no exchange control, free flow of capital, a freely convertible currency, autonomy in financial and monetary policies, etc. But they obviously cannot be too specific as to be inflexible or too general as to be vague. So there is scope for different interpretation as to whether a particular proposal falls within the scope of the Joint Declaration and the Basic Law. And there is correspondingly scope and need for discussion with those concerned.

There is very little politics involved in monetary matters. There are no
ideological differences and so little chance of confrontation. The spirit behind our monetary reform measures is always clear and this is to ensure monetary stability in Hong Kong in the lead up to 1997 and beyond. This is the common objective. We are therefore very fortunate that we get the same enthusiastic support from the People’s Bank of China as we do from the Bank of England. We have, over the years, established and cultivated very good relationships with the two institutions. And I am glad that on central banking issues, the views of central bankers prevail. We are on the same wavelength and there is a high level of trust in both our intentions and, dare I say, our ability to deliver. These contacts are essential to the work of the Hong Kong Monetary Authority and I shall ensure that they will continue.

And they will continue with the high degree of autonomy that we have always enjoyed and is clearly enshrined in the Joint Declaration and the Basic Law. The support that have been expressed by those concerned on the intention to establish the Hong Kong Monetary Authority is very encouraging. It is, to me, an unequivocal demonstration that we shall continue to enjoy that autonomy in the lead up to 1997 and beyond, under an executive-led Government. It is, to me, a clear assurance that the Hong Kong Monetary Authority will be the monetary “through train”.

In this connection, I am glad to tell you that we have also received much support in international central banking circles. You may have noticed that we have been building up our contacts with central banks and monetary authorities in other parts of the world. For Hong Kong to continue to develop as an international financial centre, these direct contacts are essential. This is particularly so when financial markets are becoming more and more globalized and when regulatory and supervisory issues require closer international coordination.

Turning to the monetary implications on Hong Kong of developments in China, given the higher degree of economic integration between Hong Kong and China, in particular the southern part of China, the Hong Kong dollar understandably is playing an increasing role in China. This is not just limited to the amount of Hong Kong dollar bank notes circulating in China, which has been increasing, but more importantly the Hong Kong dollar being used increasingly as a medium of business transactions and as a popular currency for holding financial claims. Total Hong Kong dollar liabilities of the banking system in Hong Kong to banks in China has grown in the past five years from around HK$8 billion in 1987 to HK$84 billion at the end of the third quarter of this year (or HK$52 billion when net of Hong Kong dollar claims on banks in China). This is equivalent to slightly over 10 percent of our broad money supply HK$M3 and Hong Kong dollar loans, thus explaining
why our loans to deposit ratio has in the past few years been consistently at over 100 percent.

These are interesting trends and we have to monitor them closely, not so much to put them under control for I am not sure they need to be or should be, but for us to understand how these very big and increasing amounts of money are likely to behave, who if anybody is responsible for taking decisions and what are the determining factors. Our interest, and yours, lies in establishing whether the additional source of Hong Kong dollar funding is a stable one, what are the risks involved and how we should prudently manage those risks. Through our close contacts with the Chinese, both sides are appreciating the intricacies of that monetary relationship.

My apologies for being somewhat long winded. I have observed over the years that the practice of the Association is to give speakers only one chance. I have therefore tried to maximize the utility of this unique opportunity to put as much as possible in the speech and the accompanying annexes. I hope I have not bored you. Many thanks again for inviting me to speak.
Central Banking in Hong Kong

This annex examines briefly how the usual roles of a central bank or a monetary authority would be performed in Hong Kong with the establishment of the Hong Kong Monetary Authority (HKMA). It is an update of a similar annex to a speech on Central Banking in Hong Kong given to the Hong Kong Forex Club on 30 January 1989 by Joseph Yam as then Deputy Secretary for Monetary Affairs.

I. EXERCISING OF MONETARY POLICY

(a) Regulating the exchange rate

The HKMA regulates the exchange rate under delegated authority of the Financial Secretary (FS), with statutory backing under the Exchange Fund Ordinance. The objective is to ensure exchange rate established in October 1983 under the framework of the linked exchange rate system.

(b) Open market operations

The HKMA conducts money market operations with a view to influencing the level of liquidity in the interbank market, through the Accounting Arrangements established in July 1988, between the Management Bank of the Clearing House of the Hong Kong Association of Banks and the Exchange Fund, in a way which assists in the maintenance of exchange rate stability. To achieve this, the HKMA has the choice of directly borrowing or lending Hong Kong dollars in the interbank market, and selling or buying foreign currency or other assets including Exchange Fund Bills in issue since March 1990.

(c) Liquidity Adjustment

The HKMA operates a Liquidity Adjustment Facility (LAF) introduced in June 1992. This is Hong Kong's version of a discount window except that there is the additional flexibility for absorbing excess liquidity from the banking system. LAF lending is normally secured upon the holdings of Exchange Fund Bills and Government Bonds.
(d) Control of interest rates

In setting the bid and offer rates for the LAF, the HKMA effectively determines the lower and upper limits for the overnight interbank interest rate. The HKMA exercises its influence on short term interbank interest rates for the purpose of ensuring exchange rate stability. Deposit interest rates are determined by the Committee of the Hong Kong Association of Banks, under the Rules on Interest Rates and Deposit Charges, after consultation with the HKMA under delegated authority from FS. Lending rates are a matter for individual banks. The level of interbank interest rates obviously has a bearing on other interest rates.

(e) Credit control

Not applicable to Hong Kong.

II. MAINTAINING THE STABILITY AND INTEGRITY OF THE MONETARY AND FINANCIAL SYSTEMS

(a) Supervision of financial institutions

The HKMA supervises authorised institutions under the Banking Ordinance. (Insurance companies are supervised separately by the Insurance Authority.)

(b) Regulation of financial markets

There is generally a high degree of self-regulation in financial markets in Hong Kong. Where applicable, regulation from an official body is aimed at maintaining a high level of integrity in markets and a suitable degree of investor protection. Specially, the HKMA oversees the operation of the government debt market. The HKMA also chairs a Foreign Exchange and Money Market Practices Committee. (Regulation of the securities markets is the responsibility of the Securities and Futures Commission.)

(c) Emergency support for banks

Where appropriate, the HKMA organises such support, having regard to its responsibility in maintaining the overall stability and integrity of the financial and monetary systems.
III. BANKER TO THE GOVERNMENT

(a) Provision of banking services to Government

The government looks to commercial banks for banking services, including expenditure payments and revenue receipts.

(b) Management of reserves

The bulk of the government's fiscal reserves are transferred to the HKMA for the account of the Exchange Fund. Interest is paid on the reserves so transferred. The HKMA manages the Exchange Fund. It also gives assistance to the government in managing money not transferred to the Exchange Fund.

(c) Management of government debt

The HKMA manages the programme of government bonds on top of the Exchange Fund Bills programme.

(d) Financial Adviser to the government

The HKMA gives advice on major government policy issues involving financial considerations, such as funding, guarantees and the monetary effects.

IV. BANKER TO THE BANKING SYSTEM

(a) Clearing for the banking system

Performed by The Hongkong and Shanghai Banking Corporation Limited (HSBC) who is the Management Bank of the Clearing House of the Hong Kong Association of Banks. HSBC is also one of 10 Settlement Banks. Licensed banks in Hong Kong maintain clearing accounts with Settlement Banks which in turn maintain clearing accounts with the Management Bank. Standby credit facilities are arranged between the relevant banks to facilitate clearing and settlement. The Management Bank maintains an Account with the Exchange Fund and acts as paying and receiving agent for the HKMA in its money market operations.

(b) Lender of last resort to the banking system
The HKMA, for the account of the Exchange Fund, is lender of last resort to the banking system, through the Accounting Arrangements.

V. OTHER ROLES

(a) Issue of bank notes and coins

The issue of bank notes is governed by the Bank Note Issue Ordinance which specifies HSBC and the Standard Chartered Bank as note-issuing banks. They need to pay US dollars to the HKMA for the account of Exchange Fund at the fixed rate at HK$7.80 = US$1 to obtain non-interest bearing certificates of indebtedness as backing for the issue of Hong Kong dollar bank notes. The seigniorage of the note issue therefore goes to the government, for the account of the Exchange Fund. Coins are issued by the HKMA, also for the account of the Exchange Fund.

(b) Operation of supervising exchange control

Not applicable to Hong Kong.
Monetary Reform - A Technical Summary

ACCOUNTING ARRANGEMENTS (1988)

These are arrangements between the Hongkong and Shanghai Banking Corporation Limited (HSBC) as Managing Bank of the Clearing House of the Hong Kong Association of Banks, and the Exchange Fund. The purpose of the arrangements was to enable the Exchange Fund to have effective control over the level of interbank liquidity defined to be the sum of the balances on the clearing accounts of all licensed banks in Hong Kong. Under the arrangements, this is equivalent to the balance on the account that HSBC is required to maintain with the Exchange Fund. Details of the Accounting Arrangements and their implications were first outlined and publicized in a circular letter dated 15 July 1988 from the Secretary for Monetary Affairs to all licensed banks and relevant organizations. The summary provisions, after suitable updating in the light of practical experience, and taking account of the establishment of the Hong Kong Monetary Authority (HKMA), are as follows:

(a) HSBC maintains a Hong Kong dollar account (the “Account”) with the HKMA for the account of the Exchange Fund;

(b) the HKMA determines the level of the balance (the “Balance”) in the Account;

(c) no interest is paid on credit balances in the Account;

(d) if the net clearing balance (“NCB”) of the rest of the banking system exceeds the Balance, HSBC pays interest on the excess to the HKMA for the account of the Exchange Fund;

(e) if NCB is in debit, HSBC pays interest on the debit amount to the HKMA for the account of the Exchange Fund;

(f) up to a certain amount, the rate of interest payable by HSBC under (d) and (e) is the Best Lending Rate (BLR) or Hong Kong Interbank Offered Rate (HIBOR), whichever is higher. Beyond that amount, the interest rate payable is 3% over BLR or HIBOR, whichever is higher. In exceptional circumstances, an alternative rate may be determined by the HKMA, after consultation with HSBC;
(g) the HKMA uses the Account, at its discretion, to effect settlement of the Exchange Fund’s Hong Kong dollar transactions with HSBC;

(h) the HKMA uses the Account, at its discretion, to effect settlement of the Exchange Fund’s Hong Kong dollar transactions with other licensed banks;

(i) in case of (h), the HKMA either credits or debits the Account and HSBC correspondingly credits or debits the clearing accounts of banks involved in those transactions.

**INTEREST RATE FLEXIBILITY (1987, 1988)**

Interest rate should be flexible in both directions to the extent necessary to discourage and counteract deviations of the exchange rate from the fixed level. On the one hand, there is the negative interest rate mechanism put together by the Hong Kong Association of Banks consisting of:

(a) the Specified Rate Rule made at the end of 1987 which allows large Hong Kong dollar balances maintained on clearing accounts of licensed banks to be subject to a charge called the Specified Rate; and

(b) amendments to the Rules on Interest Rates made at the beginning of 1988 to allow for Deposit Charges to be imposed on large Hong Kong dollar deposit balances of non-bank customers.

On the other hand, banking transactions were exempted from the Money Lenders Ordinance (Cap 163) through an amendment enacted in 1988. Section 3 of the Ordinance specifies that the Ordinance shall not apply to:

(a) an authorized institution within the meaning of the Banking Ordinance (Cap 155); or

(b) as respects a loan made to such an authorized institution, any person who makes such loan.

**EXCHANGE FUND BILLS (1990)**

To provide a cost effective monetary policy instrument for use in affecting the level of interbank liquidity for the purpose of maintaining exchange rate stability, a programme for issuing Exchange Fund Bills was implemented in early 1990. Currently the programme is as follows:
EXCHANGE FUND BILLS PROGRAMME

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Issue Size</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>91-day</td>
<td>every week</td>
<td>800 million</td>
<td>1,000 million</td>
</tr>
<tr>
<td>182-day</td>
<td>every 2 weeks</td>
<td>300 million</td>
<td>400 million</td>
</tr>
<tr>
<td>364-day</td>
<td>every 4 weeks</td>
<td>200 million</td>
<td>300 million</td>
</tr>
</tbody>
</table>

The secondary market for Exchange Fund Bills is active. The total amount of Bills outstanding as at the end of November 1992 was HK$20 billion. Average daily turnover of Bills in November 1992 was HK$10 billion. Contributing to the high level of activity is the market making system in which Market Makers are permitted to run short positions for Government debt (Exchange Fund Bills and Government Bonds) in accordance with the following arrangements:

MARKET MAKING OF GOVERNMENT DEBT
THE SHORTING ARRANGEMENTS

5.1. NOTATIONS AND CHARACTERISTICS

\[ m_{ij} = \text{market value of issue } i \text{ of government debt held by Market Maker } j. \]
\[ n_{ik} = \text{market value of issue } i \text{ of government debt held by non-Market Maker } k \]
\[ B_i = \sum_k n_{ik} + \sum_j m_{ij} = \text{market value of issue } i \text{ of government debt issued, the nominal value of which is fixed at issue.} \]
\[ M_j = \sum_i m_{ij} = \text{market value of government debt held by Market Maker } j \]

5.2. THE SHORTING ARRANGEMENTS

The requirements under the shorting arrangements are:

(a) \( m_{ij} = 0 \);
(b) \( M_j > x\% \text{ of } \sum_i m_{ij} \text{ for all } m_{ij} > 0; \) and
(c) \( n_{ik} > 0 \)
5.3. THE MARKET MAKERS

Market Makers are currently appointed by the Secretary for Monetary Affairs and in future by the HKMA. As Authorized Institutions under the Banking Ordinance, they are supervised currently by the Commissioner of Banking and in future by the HKMA.

5.4. THE BENEFITS

(a) no cornering of issues;

(b) no need for restriction on proportion of each issue to be tendered by any body, hence more active participation in primary market;

(c) smoother yield curve;

(d) benchmarks for the whole spectrum of maturities (instead of benchmark issues); and

particularly important for developing markets like Hong Kong:

(e) greater ease in market making;

(f) much more active secondary market; and hence

(g) lower/more realistic yields/cost of borrowing.

5.5. THE RISKS

(a) imprudent behaviour by Market Makers and so greater risk of default by them;

(b) default by Market Makers either introduces an element of risk to holding government debt (undesirable) or imposes a cost on government (as in the case of Hong Kong) in the form of the contingent liability arising from the situation when the proceeds of a forced sale of the long position of the default Market Maker were not adequate for covering its short position; and

(c) government implicitly assuming credit risk of Market Makers secured upon their holdings of government debt.
5.6. RISK MANAGEMENT

(a) close supervision of Market Makers, particularly the interest rate risk being incurred. This in any case is needed and is carried out in banking supervision. So the marginal cost of closer supervision, if necessary, would be small;

(b) ensure there are watertight legal arrangements that short positions of Market Makers are in effect secured by their long positions (with a comfortable margin of x%) and that government can, under certain suitably defined activating circumstances, liquidate the long positions to cover the shorts;

(c) retain discretion to vary x for individual Market Makers or temporarily revoke their ability to short; and

(d) paperless system ensures close monitoring of positions of Market Makers. If a Market Maker looks like breaching 5.2.(b), nothing involving the Market Maker for that value day would be cleared until the position is rectified.

LIQUIDITY ADJUSTMENT FACILITY (1992)

The purpose of the Liquidity Adjustment Facility (LAF) is to assist licensed banks in making late adjustments to their liquidity positions, defined to be the balances in their clearing accounts.

Under LAF, licensed banks may, at 4 pm to 5 pm, on Monday to Friday and 11.30 am to 12 noon on Saturday, other than public holidays:

(a) obtain overnight funds from the HKMA for the account of the Exchange Fund at the published Offer Rate through a Sale and Repurchase Agreement of government debt;

(b) place surplus funds overnight with the HKMA for the account of the Exchange Fund at the published Bid Rate; and

(c) request overnight funds on an unsecured basis from the HKMA for the account of Exchange Fund, the amount provided and the interest rate applicable to be determined at the absolute discretion of the HKMA.

The LAF Bid and Offer Rates are posted for all to see on a continuous basis. They have a strong bearing on short term interbank interest rates and
are akin to the central bank discount rate for other currencies. Details of LAF are contained in a circular letter issued by the Office of the Exchange Fund on 27 May 1992 to all licensed banks.
Financial Stability in Hong Kong
and
Oversubscription of New Share Issues

Joseph Yam

INTRODUCTION

Good afternoon ladies and gentlemen. I am delighted to be here to address the Australian Chamber of Commerce in Hong Kong.

Today is a double first for me. This is the first time I am addressing an Australian gathering. It is also my first public address as the Chief Executive of the newly established Hong Kong Monetary Authority. I must confess, however, that I did have some difficulty in relating these two first attempts. After some research and with the help of Albert Cheok, my new Executive Director heading the Banking Supervision Department in the Hong Kong Monetary Authority, who is on secondment from the Reserve Bank of Australia, I managed to find a good starting point for my speech today.

OPERATIONAL MANDATE FOR THE HONG KONG MONETARY AUTHORITY

For those of you who have had the opportunity to visit the Reserve Bank of Australia, you would have found emblazoned on the high wall in its entrance foyer its corporate mandate, and it reads as follows:

"It is the duty of the Board to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and that the powers of the Bank .... are exercised in such manner as ..... will best contribute to the stability of the currency of Australia; the maintenance of full employment in Australia; and the economic prosperity and welfare of the people of Australia."

There is no doubt that this is a very worthwhile statement, but without being disrespectful I must say I have mixed feelings about it. On the one hand, it seems to me to be overly ambitious and I shall explain why. On the other hand, it seems to me also to be inadequate in that it made no reference at all to the need, for example, to uphold the integrity of the banking system.

The speech was given to the Australian Chamber of Commerce on 8 April 1993.
The macro economic objectives mentioned in the statement are indeed very desirable. But I have long wondered how it is possible, in any economy, for all of them - stability of the currency, full employment, economic prosperity and welfare of the people - to be achieved simultaneously by the central bank concerned. I did have the opportunity to meet with officials of the Reserve Bank of Australia and also the Australian financial community, and discussed the matter with them. As the objectives are conflicting ones, and there is basically only one monetary tool at the disposal of the central bank, that is, interest rates, why set themselves an almost impossible task?

There were a few answers given by different people. First was that the responsibility was imposed on the Reserve Bank of Australia when the Reserve Bank Act was enacted in 1959, and times have changed. Second was that the Reserve Bank of Australia was indeed overly ambitious and that they should instead follow the example of the Reserve Bank of New Zealand (this person was originally from New Zealand) and concentrate only on the maintenance of a low inflation rate and forget about the rest. Third was that stability of the currency was considered the most important of the various objectives and that with such stability achieved, full employment and economic prosperity will in time follow and the welfare of the people will correspondingly be enhanced; and it is hoped that the people would not have to wait too long.

There seems therefore a recognition that, as with all the good things in life, you cannot really have all of them and that a choice has realistically to be made. The danger of setting multiple macro monetary objectives is that the central bank risks being pushed by political pressures into shifting between them and in the end the central bank achieves none and therefore faces a credibility problem. There is further recognition that currency stability should be the prime objective, although for different economies there is room for debate whether currency stability should be gauged in terms of the internal or the external value of the currency. That is to say, whether the objective should be price stability or exchange rate stability. Certainly one does not necessarily lead to the other. And this is particularly so for a freely convertible currency with free flow of capital and the absence of exchange controls. So another choice has to be made.

On the micro monetary level, my doubt about the lack of mention of equally desirable objectives in the mandate of the Reserve Bank of Australia was answered by the fact that the Australian banking system had been so well controlled at the time that there was not much concern about the soundness of financial institutions with whom members of the community entrusted their savings. Again, times have changed. For those of you who are familiar with the Australian financial scene, the Campbell Report on the Australian Financial System published in September 1981 recommended, along with an extensive
list of measures on financial de-regulation, that the Australian Banking Act "should provide for the capacity to impose prudential requirements by regulation, but in the expectation that formal regulation would not generally be used".

This brief examination of the mandate of the Reserve Bank of Australia confirmed our view as to what the mandate of the Hong Kong Monetary Authority should be. Indeed, this has been spelt out in the recent amendment of the Exchange Fund Ordinance enabling the establishment of the Authority, and this is, in rather esoteric legal language, ".....(to affect) ..... either directly or indirectly the exchange value of the currency of Hong Kong and for other purposes incidental thereto ..... and to maintain the stability and integrity of the monetary and financial systems of Hong Kong".

Translating this into less esoteric language and describing it in terms of activities and responsibilities, the operational mandate for the Hong Kong Monetary Authority can therefore be interpreted as:

First, to maintain currency stability, within the framework of the linked exchange rate system, through monetary policy operations and other means deemed necessary;

second, to ensure the safety and stability of the banking system through the regulation of banking business and the business of taking deposits, and the supervision of authorised institutions; and

third, to ensure the efficiency, integrity and safety of the payments system through sound operating practices and policies.

These may sound familiar to you, particularly for those of you who have read or had the benefit of listening to the speech by Gerald Corrigan, President of the Federal Reserve Bank of New York, to the New York State Bankers Association on 27 January this year. He described these three areas of activities and responsibilities as "the trilogy of central banking", a term which is now increasingly gaining recognition in central banking circles. I am sure he does not mind the Hong Kong Monetary Authority, a new comer to the central banking fraternity, adapting it as its operational mandate.

THE TRILOGY OF CENTRAL BANKING

Gerald Corrigan used the word "trilogy" in a literary context. He said that:

"the essence of the trilogy can never be grasped by looking at any one of its parts. Rather, it is a package deal in that its true significance can only be
found in the manner in which each of the elements of the trilogy interacts with the others to form a common theme. And that common and unifying theme is overall economic and financial stability”.

“....... when we succeed in getting all three of the elements of the trilogy working together in the proper direction, the result in terms of overall economic performance will be positive; but when any one of the elements of the trilogy is not working in the right direction, economic performance and prospects will suffer accordingly and as failure in one area ultimately contaminates the others, performance and prospects will worsen”.

These are very wise words. You will appreciate this if I bring you back to the situation in Hong Kong in the early eighties, when for a variety of political and economic reasons we experienced serious difficulties with the first element of the trilogy - currency stability. There was the currency crisis in 1983. This coincided, and I would argue was at least partly associated with, and certainly exacerbated, the problems in the second element of the trilogy - the safety and stability of the banking system. There was a series of bank failures, necessitating the use of the Exchange Fund to take over or participate in the rescue of these banks. This was done out of concern that the contamination effect might get out of control, affecting the third element of the trilogy, the efficiency, integrity and safety of the payments system, particularly in respect of inter bank payments, and the possibility that this would eventually lead to a breakdown of confidence in the medium by which payments are made, the currency, the exchange rate. And this brings us back to the first element of the trilogy - stability of the currency.

It has not been easy to put things right. In 1983, we put together the linked exchange rate system and stabilised the exchange rate. We have since implemented monetary reform measures to strengthen our monetary system and our monetary management capability to help maintain currency stability. There is now more direct influence on the money markets through the account relationship with the Management Bank of the Clearing House. We now also have the ability to influence short term interest rates through the Liquidity Adjustment Facility. We have developed a domestic money market instrument in the form of the Exchange Fund Bills. We have also almost completely revamped our banking supervisory system, starting with the introduction of a new Banking Ordinance in September 1986. We have since been updating it continuously. These efforts have gone hand in hand. Consequently our monetary and banking systems were able to withstand some rather significant shocks inflicted upon us in the past few years as a result of events very much beyond our control.

But we have increasingly found ourselves constrained by the lack of
resources to ensure that we can continue to do a proper job. There was also the rather fragmented organizational framework within which the Office of the Commissioner of Banking responsible for banking supervision operated entirely separately from the Office of the Exchange Fund responsible for macro monetary management. And because of secrecy provisions in the relevant laws, there was a serious lack of information flow and interchange of staff between these two closely inter-related areas of work, the two better known elements of the trilogy.

That fragmented organisational framework had also meant that less attention had been paid on the official side to the third element of the trilogy - the efficiency, integrity and safety of the payments system. Fortunately, we have the private sector at its best here. The operation of the payments system has been the responsibility of the Management Bank of the Clearing House of the Hong Kong Association of Banks, together with a number of Settlement Banks. This is a responsibility that has been carried out effectively. We therefore see no need for any change to the institutional structure.

All those involved are aware of how the payments system interacts with the monetary and banking systems. We share a common interest in guarding against a breakdown in the payments system or a settlement failure of a participant in that system. In the end, it is either the depositors or the community at large that involuntarily underwrites the risks and bears the costs of corrective action. The Hong Kong Monetary Authority has a responsibility, working closely with the Management Bank of the Clearing House and the Settlement Banks, as far as possible to minimise the risks and the costs. This means, amongst other things, ensuring that payments be processed quickly and securely, and finality of settlement is achieved in good time. Financial innovation is all the time presenting new challenges to the payments system and the management of the risks therein. Fortunately technological innovation enables these challenges to be adequately met. But there is obviously a need for continuous effort amongst those concerned.

The efficient functioning of the payments system also requires that banks participating in it are able to monitor and control their settlement exposures and to ensure that there is adequate funds in their settlement accounts, or proper arrangements have been made with the Settlement Banks to meet their settlement obligations. In turn, the Settlement Banks and the Management Bank of the Clearing House have an important responsibility to monitor and control their exposures to banks settling with or through them.

**Oversubscription of New Share Issues**

You may feel that what I have said so far borders on being academic. I
don't blame you. But I do think that in central banking, theory and practice are much closer to each other than in most other economic disciplines. I will give you an example of how this theory of the trilogy of central banking by Gerald Corrigan, as somewhat shamelessly adapted by me for the purpose of Hong Kong, is put into practice here by the Hong Kong Monetary Authority. This concerns the heavy over subscription of new share issues.

There have been quite a number of new share issues recently and some of them many times oversubscribed. One that took the limelight was Denway which was 600 times oversubscribed involving an enormous total amount of $240 billion in share subscription. By comparison, the average daily turnover in the Hong Kong dollar inter bank market (April 1992) is around HK$38 billion. Bank notes in circulation is about HK$60 billion and the money supply, HK$M1, is about HK$145 billion.

I consider new share issues a normal activity. This is what stock markets are for. And given that first, we are experiencing negative real interest rates which encourage asset price inflation; secondly, property speculation has been dampened, and rightly so, by the 70 percent mortgage ceiling; and thirdly, the southern part of China is now the fastest growing area in the world and Hong Kong is sitting right in the middle of it, it is understandable that there will be great demand for new shares, particularly China concept stocks.

To facilitate the application of new shares and indeed any other economic activity, there is the currency as a medium of transaction, the banking system providing credit and the payments system for completing the transactions - again the three elements of the trilogy. Indeed, this is what money and money markets are for. But given the very large sums of money that are involved, it would obviously be prudent to examine the monetary and banking implications of such events, even though the markets have apparently coped well with them. I therefore set up and chaired a Working Group to do this. We looked at the matter closely. We also interviewed a number of institutions involved in this activity. We established facts. We asked questions, for example, on what happens if, in the unlikely event, during the few days in which the total amount of subscription is “tied up”, one of the parties, namely, the issuer, the lending bank, the Receiving Bank, the broker or the customer is to run into difficulties. What if during the few days Hong Kong is subject to a sharp external shock affecting confidence, etc., etc.

**Findings**

The Working Group has last week completed its internal Report on the subject. I have already made it clear that as information on the operations of individual Authorised Institutions was provided to us in confidence and as we
are bound by the secrecy provisions of the Banking Ordinance, the Report will not be published in full. However, the section on the findings of the Working Group, suitably edited, is annexed to the printed version of this speech for the information of those interested in the subject. Basically, in the context of the trilogy of central banking: first, we are satisfied that the macro monetary implications are broadly acceptable given the monetary management mechanisms already in place. In other words, under present monetary arrangements, currency stability is unlikely to be threatened by large over subscription of new share issues. But the effect of the sharp increase and the subsequent fall off in inter bank liquidity, in bank credit and the money supply, what we now call “the soufflé effect”, needs to be carefully monitored, and if necessary specific monetary operations will be carried out to ensure monetary stability.

Second, we are not entirely satisfied that the risks to individual Authorised Institutions are adequately understood and managed by them. Although the “specific purpose” trust and bank nominee arrangements, assuming that they are properly drawn up, would go quite a long way to limit the risks, in the worse case, to within the amount of money being raised by the issuer, these arrangements do not limit the inter bank risks which are as large as the gross subscription amount. We therefore have a number of recommendations for consideration and adoption by Authorised Institutions.

Third, apart from a hiccup on the refund day of one issue which was quickly put right, we are broadly satisfied that the payments system is capable of handling the heavy payments traffic arising from the large over subscription of new share issues. However, we do have doubts as to whether the system is as robust as it can and should be, in terms of enabling the possible adverse effects on monetary and banking conditions that may arise from a shock to the system to be isolated in time and dealt with in a way that is least disruptive. But this is not a matter specific to the large over subscription of new share issues. It will therefore be addressed separately.

**RECOMMENDATIONS**

On the basis of these findings, the Working Group would like to put forward a number of recommendations for the consideration and adoption by Authorised Institutions under the Banking Ordinance involved in new share issues. We would certainly welcome comments on them. These recommendations could later be formalised as guidelines issued under section 7(3) of the Banking Ordinance by the Monetary Authority.

Our first recommendation is that all Authorised Institutions should establish and document a lending policy for the financing of new share issues.
Second, they should ensure that the structure of their lending arrangements is such that they are protected, so far as possible, from the winding up or bankruptcy of the broker, the customer, the issuer and the Receiving Bank. This means, amongst other things, that their loan documents should be such as to make it clear that the application moneys are lent on “purpose” trusts and refund moneys are therefore held on trust for the lending bank. Authorised Institutions should take their own legal advice on this. They should also ensure that all applications are submitted and refund moneys received by their own nominee companies.

However, no legal or operational arrangements can be completely watertight and the respective rights and obligations may take time to resolve through the courts. Moreover, the fact that application moneys are held on trust by the Receiving Bank does not mean that the lending banks and their customers are not exposed to the credit risk on the Receiving Bank. So our third recommendation is that each Authorised Institution’s lending policy should set a cap on the maximum exposure which it is prepared to incur on lending to individual brokers and customers. It is recognised that the trust and security arrangements, if properly formulated, may permit these limits to be higher than would be acceptable in the normal course of business. However, for locally incorporated Authorised Institutions such exposures cannot in any case be more than 25 percent of capital base except to the extent that they are secured by cash deposits. The same should apply to overseas incorporated institutions in relation to parental capital. However, the 25 percent limit sets the upper cap for exposures: Authorised Institutions should consider whether it is appropriate in relation to each individual broker or customer.

If the trust arrangements work properly - and this cannot be guaranteed - the exposure of the lending bank is limited to the amount of shares actually allocated to the broker or customer. The bank is still exposed to the risk of default by the broker or customer and to a shortfall in the value of the security constituted by the shares. This risk will be increased if the issue turns out to be less fully subscribed than expected and, in particular, if it is under subscribed. Authorised Institutions can mitigate this risk by imposing margin requirements on their brokers and customers. Presently, there seems to be a somewhat disturbing tendency on the part of some Authorised Institutions not to do this, particularly when lending to brokers. The fourth recommendation is therefore that it would be prudent for Authorised Institutions to make it their standard practice to take adequate margin. We believe that 10 percent would be a suitably conservative figure.

Fifth, lending banks should also have a limit on their overall exposure to brokers and customers in respect of each issue. Since this is effectively a
credit risk on the Receiving Bank, the overall limit should be set in relation to each Authorised Institution’s normal credit limit on the Receiving Bank. Although the application moneys are held on trust, they are not secured or segregated and there seems no good reason why lending banks should be prepared to take on a larger exposure than they would normally be prepared to accept for unsecured, 7-day lending to the Receiving Bank in question.

Similarly, the sixth recommendation is that the exposure of the Receiving Bank to individual lending banks to which it recycles application moneys should be no higher than its normal credit limit for the Authorised Institution in question.

There may be cases where, because of the nature of an institution’s business, its “normal” inter bank limits may be relatively small; and the institution may feel that they could be safely increased for short periods. The final recommendation is that any temporary increase above normal inter bank limits should be carefully justified and controlled, and should not in any case result in the exposure to an individual counter party being increased to more than 25 percent of the Authorised Institution’s or the parent bank’s capital base.

CLOSING REMARKS

Ladies and gentlemen, my apologies for dwelling on this technical matter. It is an important subject that the new Hong Kong Monetary Authority takes seriously, in view of its possible impact on overall financial stability. But we will always do all we can to help rather than constrict the private sector in their legitimate activities. It is also a subject that the financial community and the press are waiting to hear from us. I hope you do not mind my taking advantage of this opportunity to publicise the findings of our study and our recommendations. Thank you for listening to me.
Reserves Management in Hong Kong

Joseph Yam

INTRODUCTION

Mr Chairman, thank you for your kind words of introduction.

I am delighted that your Association is, for the first time, holding your Annual Meeting in Asia, and particularly pleased that you have chosen to hold it in Hong Kong. East Asia is after all the fastest growing region in the world, and we like to feel we are at the heart of it. And 1993 promises to be an important year for the monetary and financial systems of Hong Kong.

In fact, I have found your presence in Hong Kong this year most convenient, because I would like very much to use the opportunity to publicize to this very important group of international financial experts the fact that we will very soon be establishing a Monetary Authority here. All the hurdles have now been overcome and we expect to be formally established on 1 April this year. While we will not quite have the independence of the Bundesbank, we are looking forward to taking our place as a member of the world's central banking fraternity. We are also looking forward to playing our role professionally, and in a way that commensurates with and enhances Hong Kong's status as an international financial centre.

RESERVES MANAGEMENT PHILOSOPHY

The roles of the Hong Kong Monetary Authority will be broadly the same as those of central banks in other jurisdictions. I do not therefore wish to bore you with further advertisements. What I would like to do today is to focus on one area of our work which may be of some direct interest to you. This concerns the management of the Hong Kong Government's Exchange Fund, which as many of you will know is our equivalent of the official reserves. The scale of the world's official reserves has grown rapidly in the past ten years, and central banks have become much more active and professional in managing them. This has implications for the development of financial markets as well as the establishment of business relationships between central banks and financial institutions. As a consequence, interest in the subject of reserves management is higher now than ever before.

The speech was given to the International Swap Dealers Association on 11 March 1993.
In Hong Kong, we have shared in the widespread growth of official reserves. The Exchange Fund at the end of 1991 was worth just under US$30 billion, and is currently higher than that, given further accumulation of fiscal reserves in 1992. But we have not been as forward as many of our peers have been in managing these assets actively. Indeed, it would be fair to say that we have fallen behind, and we have not been making the most of the market opportunities before us.

We are now changing this, and one of the most important tasks before the Hong Kong Monetary Authority is to modernize our reserves management activities. To do this, we have gone back to first principles. Clearly, the most visible and most obvious result of our reserves management is the return we earn on the Exchange Fund. The rates of return we have been achieving up to now has been by no means bad, and some have considered them attractive, especially given the resources at our disposal. At least this has been the public response when the details of the Exchange Fund were first published in July last year.

But return is not everything. It is but one side of what is called the "eternal triangle" of security, liquidity and profit. And, as any player of the market will tell you, each of the three elements has its cost. As Chief Executive designate of the Hong Kong Monetary Authority, my view is that we have not up to now given adequate attention to assessing the cost of our attractive return properly, either in terms of the credit risks we were taking in our investments, or in terms of the market risk, due for example to our asset maturity profile not matching our liabilities, or in terms of the liquidity risk of tying up our assets.

These are relatively difficult costs to identify, let alone quantify and weigh against each other. But we are now in the process of doing the necessary work: risk-reward analyses can be done, and decisions on the correct pay-off between return and cost can be made. Though I must point out that the pay-off between the two may not be quite the same for us as it is for the private sector. If I make a few hundred million extra, by being prudently imaginative, I might, if I choose to disclose this to the Financial Secretary who appoints me, get a quiet pat on the back from him. There would be no mention of it in the press or the Legislative Council. And there will certainly be no bonus at all. But if I were to lose even a few hundred thousand dollars in a bad investment, say, a deposit with BCCI (for the record: the Exchange Fund had none), then there is a major scandal!

Proper risk-reward analyses require that we should periodically review our credit policies, and a major one is currently underway. Subject to the views of the Exchange Fund Advisory Committee, the de facto board of the Hong
Kong Monetary Authority, it is likely that we will conclude that we should place a bigger emphasis on investing in high quality securities. We are also reviewing our liquidity policies: it is likely that these too will encourage us to move from a passive use of bank deposits towards a more active use of the capital markets.

And of course, we are reviewing how we should actively seek to make profit in our investment. In this connection I want to dispel one canard straight away. In some circles it is thought wrong for an institutional investor to manage funds actively. Some of my conservative colleagues in the Government have raised eyebrows when I talk about “profit” and “risk”, as if these were dirty words, and the unspoken thought is that the public sector should steer well clear of such private sector vices.

As you will guess from what I have said so far, I disagree with this. I believe strongly that there is nothing wrong or immoral in an institutional investor seeking to make a profit in the markets. I would go further, and say that it is the duty of the Monetary Authority, appointed by law to assist the Financial Secretary in the control of the Exchange Fund, to manage the Exchange Fund on behalf of the people of Hong Kong as well, and as profitably, as we can. I am not saying that we should be overtly aggressive, nor of course should we take undue risks, but I am quite certain that the pursuit of profit is a legitimate aim of official reserves management, and that we are right to make the modernization of our investment operation a priority in our new Monetary Authority.

**Purposes of the Exchange Fund**

Having outlined our broad philosophy, I would like now to turn to our objectives for the management of the Exchange Fund. Although I have said that we are managing our investments for profit, the Exchange Fund is of course an official fund, and our aims and objectives will not be quite the same as those of a private sector fund manager. The primary role of the Exchange Fund has been, and still is, to be used, and I quote from the relevant legislation, “....(to affect) either directly or indirectly the exchange value of the currency of Hong Kong....”. In times past, the main way that we sought to do this, to the extent that the monetary policy objective pursued at the time required this to be done, was through direct intervention in the foreign exchange market. This requirement, therefore, governed our investment strategy, which was one of caution and preference for a high degree of liquidity.

Whether intervention in isolation was ever as powerful a weapon as the world’s central banks liked to believe is I think rather in doubt. But it is fairly clear now, especially after the events in Europe since last September, that it
is merely one tool in our armoury, and a relatively minor one at that. A robust monetary system, an effective monetary management mechanism, a credible regulatory framework, consistent monetary and fiscal policies, and sound economic fundamentals: these are more important nowadays to preserving the market's confidence in a currency. Without them, no amount of intervention, and no amount of foreign reserves, would enable the authorities to hold an exchange rate to a particular level against the market's views. This is particularly so for a freely convertible currency which is not subject to any form of exchange control and when there is free flow of capital within, into and out of the economy.

This is well recognized here, and the developments we have put in place in the last ten years, from the construction of the linked exchange rate system in October 1983, through the various monetary reform measures taken in the last six years, to the establishment of the Monetary Authority this year, are all I hope part of a consistent story.

This emphasis on the overall financial strength of Hong Kong is also reflected in a legislative refinement of the purposes of the Exchange Fund. Although its primary use is still to affect the exchange value of the currency of Hong Kong, the recent legislation establishing the Monetary Authority also empowers the Financial Secretary to use it "to maintain the stability and integrity of the monetary and financial systems of Hong Kong", with a view to "maintaining Hong Kong as an international financial centre". I view this as a very positive move.

PUBLIC EXPECTATIONS OF THE EXCHANGE FUND

Against this background, how do we, as reserves managers, interpret our new brief? What will be expected of us? First, I sense a greater emphasis on the store-of-value aspect of our reserves, as the Exchange Fund becomes less of a stockpile of assets for use in intervention and more of a fund to be held for future generations of the people of Hong Kong.

Secondly, I sense a greater emphasis on the Exchange Fund as an indication of the strength of our economy - indeed, it is partly for this reason that we took the decision last year to start publishing relevant information on the Exchange Fund.

Thirdly, I sense a greater need to draw upon some of the accumulated fiscal reserves placed with the Exchange Fund for the major infrastructure projects we have planned here in the next few years. It is right prudently to use part of our substantial fiscal reserves to develop Hong Kong. I certainly do not subscribe to the school which says that the reserves must never
Fourthly, I sense that some will hope we use the Exchange Fund, and our investment activities, to promote the development of Hong Kong as an international financial centre. We will certainly have this in mind, though I do not believe in forcing a market to bend to our wishes through over-manipulation or intervention, or even subsidization through special treatment of one sort or another; and if people are looking for us to copy the actions of some of our regional peers I fear they may be a little disappointed.

And finally, I sense a greater interest from the public here in knowing how well we are doing; how well we are looking after their assets for them. Those of you who follow our political scene here may have noticed that the development of popular involvement in the legislature is currently a delicate subject. Whatever happens on that front - and it is not my intention to discuss that here today - we have an active press in Hong Kong and an informed public, and they are not afraid to criticize where they see their interests not being adequately looked after.

INVESTMENT APPROACH

All of this has led us to reconsider our investment approach. This will be one of the priority areas for the Hong Kong Monetary Authority. We have already made a start, and this work is currently capably assisted by a secondee from the Bank of England, who will on establishment of the Monetary Authority be our Executive Director on reserves management.

One of the conclusions we have come to in our internal reviews so far is that we will maintain our current policy of managing part of the reserves through external fund managers. We do not pretend to have all the resources, or all the skills, in house, and even if we did, there are times, and time zones, when it is difficult for us to maintain an active presence in all the markets where we have exposure. We will therefore continue to keep a significant part of the Exchange Fund with our group of external managers.

However, we will be setting them more precise guidelines, possibly with the use of an established index and setting limits for deviations from its component parts. This will enable a more objective assessment of their performance and sets parameters for the risks that they can take. It will be an improvement on the current practice of using rather too flexible guidelines and a system where performance is assessed against the average of all our managers. And we are not afraid to move funds from the poor performers to the better ones.
For our own in-house portfolio, we will be adopting a benchmark approach to our investments, and we will be managing our assets and our liabilities together. Indeed we have already started this in one part of the Exchange Fund, and the results are encouraging for us: they have enabled us to offer a fairer and better rate of return to our creditors, in this case the fiscal reserves, while at the same time we have maintained and improved our margins.

On the wider front, we will be refining our currency selection process. For me, currency selection is the biggest single contributor to overall return for a multi-currency portfolio such as ours, and I would expect us to be less passive about positioning the Exchange Fund for currency movements. We would, for example, aim to separate our decision on exposure to various currencies from that on exposure to bond markets. Foreign exchange dealers of the Hong Kong market will I am sure be pleased to hear this.

None of this is revolutionary: we are, as I said earlier, catching up with best market practice, rather than developing something completely new. But as an internal exercise, there are few things as hard to do, and as beneficial when you have done them, as to sit down and work out from first principles what you are trying to achieve. I have therefore found this exercise quite enlightening. I must emphasize also that we are not embarking on a speculative frenzy. We are very conscious of our duty, as a Monetary Authority, to play our part in the maintenance of stability in world financial markets. And we do make it a practice to pick up the telephone to consult the central banks concerned before we make relatively large transactions.

**Information Services**

We are also catching up with developments in the information and wire services fields. Again, the problem we face is not so much that we do not know what should be done, as in acquiring all the facilities, and just as importantly the skills to use them, that other market participants all take for granted. At my age it takes just that little bit longer to get familiar with all the latest magic boxes we all have on our desks now.

We are, of course, refining and developing our in house management information systems. No investment manager can hope to succeed without a clear and complete picture of his current position. And if I may just make a little aside here: we have been very surprised at the lack of available off-the-shelf portfolio analysis packages. There are, I am sure, well over 100 official institutions investing reserves actively, and most of us are pursuing very similar approaches. Where is the package we can all buy? Where is the entrepreneur to build one and corner the market? If I may use a proprietary
name, where is the company in the portfolio analysis field, to do what
Bloomberg has done in the news and wire services field? If there is anyone
here who fits the bill, let us know; or otherwise, like nearly every other
central bank I know, we will build our own. And I am sure you know very
well that that is not the most efficient way to proceed.

**Market Links**

But perhaps the most important of our tasks, both for us and also for you,
is to build up our links with other market participants. In the past, we were
recipients of information only. We allowed - indeed we asked - a very wide
range of investment houses to make offers to us. Some we took, most we
ignored. Reasons offered were few, explanations were not given. The
inscrutable approach may work in poker, but in investment management, it
left our counterparties sadly in the dark about our intentions and strategy.

I think we have matured beyond that stage now. The belief that the market
is a battlefield, where every cent, every basis point that we prise out of the
party on the other side of the deal has to be hard fought for has been replaced
by an emphasis on working with our counterparties, and of allowing them to
help us. The belief that we have to be totally secretive about our strategies
and objectives has been replaced by a greater openness, a greater willingness
to discuss what we are doing and, more importantly, what we are thinking of
doing.

We will expect our counterparties in the future to know our style, and to
know what we can and cannot do. We will expect them to ask themselves of
every trade they are thinking of putting to us “How can this be of interest and
advantage to the Hong Kong Exchange Fund?”, and not just “How can I
persuade them to do this trade to my benefit?” We will expect them to
commit significant resources to our account, including helping us to develop
into new markets where there is advantage in doing so, helping us to educate
our new staff as we grow, and even warning us if they think our plans are not
appropriate. In short, if I may use an acronym, we want counterparties that
EAT with us: E for Execution, A for Advice and T for Training. You may
have heard of the great importance we place on good food here in Hong Kong
- and indeed I hope that during your stay you will find time to enjoy sampling
some of the fine restaurants we have here - so perhaps my choice of acronym
is not inappropriate for the Hong Kong Exchange Fund.

In return, we are prepared to invest a high degree of our resources into
these relationships as well. And we will also endeavour to see that as our
business grows, those houses that are the most helpful will see enough of our
investment flows to repay their efforts on our behalf. The hope is, of course, that instead of receiving 50 faxes and telephone calls a day, 45 of which are irrelevant to us, we can receive fewer but more pertinent offerings and ideas, from people who have our interests at heart and have a genuine stake in the relationship between themselves and the Exchange Fund.

Clearly, if we succeed in this aim, and build up a core list of counterparties with whom we do the bulk of our investment business, the Exchange Fund should benefit. But, and returning to the theme I mentioned earlier, I hope very much that the attractiveness of Hong Kong as an international financial centre, and as a centre to do business from, will also be enhanced. In the past, our relationships with our counterparties were so vague and distant that it did not really matter, from the house’s point of view, whether they were in Hong Kong or Honolulu - all communications were by fax or telex and almost totally impersonal. Now, we are offering our counterparties the opportunity to build a close relationship with a major fund: one that hitherto has resembled a sleeping giant, or should I say dragon, but which now is about to become more active and much more demanding. And the reward, a good share of our business, will I hope attract the very best quality houses in the market to consider their operations here and to ask how they can get involved.

I suspect the telephone lines to my Executive Director on reserves management will be humming a bit after saying that! I hope so, even though he may not be too pleased with me, for our list of chosen counterparties is not yet complete, nor do we claim to have no room for improvement on it. And even if it were, we must always remain welcoming and open to suggestions and approaches from the market. We have the right to say no, of course, but you on your side must always have the right to ask if we are to continue to attract the best people and the best houses to us and to Hong Kong.

STAFFING RESOURCES

All of this will take not only time, but also extra resources. The markets, as all of you well know, no longer offer any easy pickings, and in order to meet the challenge of managing the Exchange Fund actively and successfully, we will certainly need to watch them much more closely.

This will need more staff resources, and when I tell you that our investment team had been static for 5 years until very recently, while the size of the Fund had more than doubled, and that we are served by a dealing room with only two dealers, you will understand how thin we are on the ground. The establishment of the Hong Kong Monetary Authority will in time provide the necessary relief, as we train up staff for this work. Training our new staff is
in fact one of the main impediments to our development at the moment. Much as we would like to do everything at once, we cannot run before we can walk.

**Conclusion**

I have spoken this morning about the position of reserves management in Hong Kong, and I am grateful to your Association for the opportunity to do so. I have said that we are about to manage our reserves more actively, and I hope that this in itself is welcome news to the market. More importantly, we are about to manage them more professionally, which is good for us, good for the market here and good for Hong Kong. We are aware of the size of the task in front of us: new strategies, new systems, new staff, new counterparties are all needed. We will not complete the metamorphosis from being asleep to being wide awake in one bound, but in time, and with the market's help, we are confident we will succeed.
Changes and Challenges in the Coming Decade

Joseph Yam

INTRODUCTION

The theme of this symposium is "Changes and Challenges in the Coming Decade" and I have been asked to give a presentation on the monetary issues. In tackling this subject, I am acutely aware of the fact that Hong Kong has never failed to surprise those who attempted to look into its future. But I must say that at this point of time the changes and challenges facing us in the next decade do seem, at least to me, to be clearer than usual.

Hong Kong is a very externally oriented economy. To prognosticate about its future, one must first look outside Hong Kong. In the next decade, as in the last, the most significant factor affecting Hong Kong, on all fronts and not just on the monetary front, must be the development of China.

The economy of China has been growing rapidly in the past decade. In the next decade, it looks like it will continue to grow rapidly. In response to the development of China, Hong Kong has been undergoing a rapid process of structural change, involving a shift of relative importance in domestic economic activity from manufacturing to the service industries, particularly financial services. As China continues to develop, that structural change in Hong Kong will continue. From an economic view point, therefore, the next decade for Hong Kong looks like just an extension, and perhaps an intensification, of the last. As others have put it, Hong Kong will be the Manhattan of China. But I would like to add that Hong Kong would also have the attractions of hopefully a much lower crime rate and definitely a much higher growth rate than Manhattan.

This broad prognostication on the economy of Hong Kong is based on the assumption that the economy of China will continue to grow. I am not an expert on China. I cannot therefore give you any reliable assessment on the validity of this assumption. What I shall do is to try and outline some of the challenges on the monetary front that China would need to meet in order to achieve sustainable growth, before I focus on the challenges we correspondingly have to face in Hong Kong.

The speech was given to the Hong Kong Economic Journal Symposium on 3 July 1993.
China is implementing a programme of economic reform and liberalization which involves the transition from a controlled economy to a market oriented economy. The intention of doing so is admirable. Market discipline ensures that scarce resources are allocated efficiently and enables the productive potential of the economy to be maximized. China is now experiencing the benefits of this transition and this is only the beginning. Labour productivity has been increasing rapidly as workers move from farms and inefficient state subsidized industries to profit making businesses that are subject to much less bureaucratic interference, ranging from the high-tech industries in Dongguan to the hawker bazaar in Wangfujing.

But when markets that have been under strict controls are opened up, the price levels in the controlled markets will move to the free market levels. This process is itself a process of inflation and it can of course have inflationary consequences for the economy as a whole. There is therefore the tough challenge of how China can, on the one hand, allow prices of individual goods and services to increase as they are increasingly determined by market forces and, on the other hand, keep overall inflation under check. There is always the temptation of reimposing price controls or market controls of one type or another. But this would be defeating the original purpose of market reform and liberalization. The answer to the challenge lies, to a significant extent, in a more market oriented approach to macro monetary management.

More specifically, the following measures would seem to me to be desirable in the circumstances of China.

(a) Define a clear and realistic objective of monetary policy.

(b) Give the central bank, the People’s Bank of China, exclusive responsibility and clear authority to achieve that monetary policy objective.

(c) Give the People’s Bank of China exclusive powers to control the supply of money, however defined. These could involve requiring commercial banks to hold reserves with and at levels determined by the People’s Bank.

(d) Give the People’s Bank of China exclusive powers to influence the price of money, i.e. interest rates. These could involve the People’s Bank determining the rates at which it carries out money market operations or a discount rate.
(e) Ensure consistent application of policies by the People’s Bank geographically.

(f) Establish effective sanctions against non-compliance by commercial banks.

(g) Subject commercial banks fully to commercial disciplines and internationally acceptable prudential standards, under the supervision of the People’s Bank.

(h) Minimize and eventually eliminate discretionary credit allocation.

(i) Prohibit the financing of fiscal deficits by central bank credit.

It would also be desirable, where appropriate, for these to be clearly enshrined in law to enhance their credibility. From my contacts, I understand that a central banking law and a commercial banking law are being drafted in China. I have had the opportunity to read and comment on a discussion draft on a personal basis. The essential features I mentioned are basically there and I understand that there has been good progress in this work in recent months. This is something that we should look forward to. It will improve the ability of China to continue economic reform and achieve sustainable growth while keeping inflation broadly under check. Hong Kong will benefit from this.

But the success or otherwise of a more market oriented approach to macro monetary management depends to a large extent on whether the markets concerned are efficient enough for this purpose. There are therefore further challenges here, in which issues concerning market access, market information technology, payment systems, market regulation, etc. will need to be tackled. Again, I understand that a lot of attention is being given to these issues, with the help of experts in the field. This is encouraging.

Efficient markets with clear rules of the game would also attract investors. In this respect, the foreign exchange market in the Renminbi (RMB) must have been an inhibiting factor. There clearly is a need for the three exchange rates to be unified and the RMB to be made freely convertible. But this is easier said than done. Not being totally familiar with the relevant considerations, I am in no position to comment on how these could be achieved, or on timing, other than to make two observations. One is that bureaucratic procedures, which seemed to have led to the proliferation of three different foreign exchange markets for the RMB, limit the development potential, the liquidity and so the usefulness of markets, and should be minimized. The other is that a pre-requisite for making a currency freely convertible is to build up confidence in the currency. This means building up
confidence in the economy and a lot of other things. Otherwise action to make the currency freely convertible could result in either a rapidly depreciating currency, or rapidly depleting foreign currency reserves, or both.

**Hong Kong's comparative advantage**

Let me turn to the monetary challenges for Hong Kong in the next decade. I would like to start by looking at Hong Kong’s comparative advantage.

Hong Kong has comparative advantage over other cities in the Region in the provision of the much needed financial and other services to facilitate the economic development in China. There are many factors making up this comparative advantage. There are the obvious ones of geography and culture, including language. Outside China, I suppose Hong Kong can claim that we know China best. These factors will always stay with Hong Kong.

But our comparative advantage is also attributable to other factors which are less permanent and cannot be taken for granted. Investors from other parts of the world are aware of the potential for reward when investing in China, but they are also aware of the associated risks. Hong Kong provides, and promises to continue to provide, the best and most convenient location for investors effectively to be in China while not directly exposed to the risks. So they come to Hong Kong and make use of Hong Kong in whatever way that suits their preference between risk and reward. Our rules of the game in Hong Kong are clear. Our markets are liquid. Our legal system is familiar to investors. And there are many more comforting provisions clearly written in the Joint Declaration and the Basic Law.

The overall challenge for Hong Kong in the next decade and beyond is for all concerned to uphold all this. Any failure to do so could lead to an irreparable erosion of our comparative advantage.

**Hong Kong as an International Financial Centre**

But let me just focus on some of the challenges that we might face on the monetary front. Whatever they are, there is little doubt in my mind that they would be of increasing significance to Hong Kong. As the structural change of Hong Kong continues in the next decade, the relative importance of the financial sector of Hong Kong will continue to grow. From servicing principally Hong Kong ten years ago, the financial sector is now increasingly servicing China, and the counter-parties with which China trades. It is servicing those in the rest of the world who are investing in the Region, particularly in China. Hong Kong’s financial sector has become truly international and Hong Kong is playing an important role as an international
Corresponding to this shift of relative importance in economic activity in Hong Kong to the financial sector, the responsibility of those involved, whether in the private sector or the public sector, will become relatively more heavy. Indeed, more will be at stake. What they do will of course have implications for Hong Kong, but will increasingly also have implications internationally. Those in the private sector will, as always, be guided by the incentive to make profits and behave accordingly, and be responsible to their shareholders. It is, I am afraid, those on the official side that may find the heavier responsibilities daunting. It is in the nature of public office that whenever anything goes wrong, the officials will get the blame. And when things go well, they seldom get the credit.

The Joint Declaration says that “the Hong Kong Special Administrative Region shall retain the status as an international financial centre.” I must confess that when I first read this provision I had doubts about it. The Basic Law is a little more modest in that Article 109 says that “The Government of the Hong Kong Special Administrative Region shall provide an appropriate economic and legal environment for the maintenance of the status of Hong Kong as an international financial centre.” Clearly, we can only aspire to be a truly international financial centre if the international financial community accepts that we are. We cannot just give that label to ourselves. We have to earn it. And indeed Hong Kong has. Now our task is to ensure that we should always behave in a way that is commensurate with that label. Herein lies the challenge. Meeting it involves ensuring that our financial system is robust and that there is a high degree of integrity in our financial markets. It in turn involves the performance of the relevant supervisory and regulatory responsibilities effectively, and in accordance with international standards.

Recognizing the importance of these tasks, we have, as you are aware, introduced a series of measures to strengthen our monetary system and upgrade our regulatory framework. On the money and banking side, the latest move was the establishment of the Hong Kong Monetary Authority (HKMA) to enable us to perform our roles with a high degree of professionalism and continuity. Having built up this framework, our emphasis in the coming years will be not so much the introduction of major reforms to our monetary arrangements. Currently there are none that I can think of. I see our emphasis being placed more on ensuring that we perform our duties competently, and on building up the credibility of the institution and the policies we pursue. I am sure you agree with me that the success or otherwise of an international financial centre is attributable in part to the credibility, both domestically and internationally, of the central bank or monetary authority.
I am glad to tell you that since its establishment, the HKMA has received a very warm welcome in the central banking fraternity. We have also received much support from the financial community here in Hong Kong. And China realizes the importance to China of maintaining Hong Kong as an international financial centre. It has a very good appreciation of the tasks that need to be performed to achieve this and that the HKMA is in the best position to do so. It follows therefore that China feels comfortable about, and has been supportive of, the efforts of the HKMA. A successful, autonomous HKMA with credibility will facilitate the continuing development of Hong Kong as an international financial centre.

**Competition**

In the next decade, Hong Kong will face increasing competition from other centres, particularly those inside China. Shanghai obviously has potential. Further, as the rules of the game become better established in China, and as confidence in the robustness of the markets in China and of China's economy generally builds up, to the investor the risks of a direct presence in China will diminish.

This will, I think, take time. For example, I cannot see the RMB becoming freely convertible and a liquid foreign exchange market established quickly, at least not to such an extent as to enable investors confidently to take on the exchange risks. And Hong Kong will not remain stationary in terms of market technology. The critical mass of an international financial and trading network is already here, with the presence of the majority of the largest financial institutions in the world, supported by a sophisticated business and physical infrastructure. I do not wish to sound complacent, nor do I wish to underscore the magnificent efforts of our counterparts in these rapidly developing centres in China, but I think for some time after 1997 Hong Kong will still be the only truly international financial centre located in China. Even if I am proved wrong, it would be because there simply is more business than we can handle, which is not impossible if China continues to develop at its recent pace.

**One country, two currencies**

Perhaps I should digress a little here and talk briefly about the Hong Kong dollar and the RMB. There have been a number of questions asked about the implications of recent developments involving the circulation of RMB in Hong Kong. Some have questioned in particular whether the position of the Hong Kong dollar would come under threat by the RMB. The answer to that
question is quite simple. The likelihood of that threat materializing would I think be the same as the likelihood of those who work in Hong Kong willingly accepting RMB instead of the Hong Kong dollar for their salary. The follow-up response, some may say for the sake of argument, is that it depends on the exchange rate used and whether the RMB can buy what the Hong Kong dollar can, not just in Hong Kong but also in the rest of the world. In other words, it depends on whether the RMB is as freely convertible as the Hong Kong dollar and whether the external value of the RMB, for example, against the US dollar, is as predictable as that of theHong Kong dollar. I think I shall leave you to take your own views.

I understand that there are a few retail shops that currently accept RMB for the goods they sell. They are of course targeting customers from China. This practice is very much of the same nature as the US dollar (or other foreign currency) price tags posted in some of the shops in tourist areas for the convenience of tourists. In the interest of the business, the shop keeper seems prepared to accept the exchange risk. But I am sure the more sophisticated ones would be managing such risk through building-in a comfortable cushion in the foreign currency price tags. It is for the customer to choose whether to accept and pay for the convenience or take the trouble to go to a money changer and economize on his outlay in the purchase. This is simple consumer economics of no macro monetary significance.

Money is a medium of exchange, a unit of account and a store of value. The acceptability of the domestic currency in those roles hinges upon the confidence of the people in that currency. Confidence in the Hong Kong dollar is not at risk and I hope it never will. There is “constitutional protection” in the Joint Declaration and the Basic Law. The Hong Kong dollar will be the legal tender of Hong Kong. It will be freely convertible. There will be free flow of capital. There will not be any forms of exchange control. We also have a robust monetary system and an effective mechanism of monetary management.

What is of macro monetary significance is the fact that the Hong Kong dollar is increasingly also playing the roles of money in China, in particular in the southern part of China. The Hong Kong dollar being used as a medium of exchange is to our benefit in that we will have the use of the US dollars backing the additional bank notes needed for circulation there. The downside risks are those that may arise as a result of a sudden change of policy in China affecting this practice. They would be in the form of an increase in the money supply geographically in Hong Kong and subsequently a reduction in the US dollar holding in the Exchange Fund as surplus bank notes are redeemed.
The Hong Kong dollar is also being increasingly used as a store of value in China. This in effect means that China is now a significant source of flows into and out of the Hong Kong dollar, along with the rest of the world. And in view of the economic integration between Hong Kong and China, it may become the largest source, if not already. This is obviously something that we have a keen interest in, given the possible impact of large inflows and outflows on the exchange rate. I drew attention to the importance of this last year when I spoke to the Hong Kong Association of Banks, particularly given that the stability or otherwise of such flows may depend to a large extent on whether the economic development in China is cyclical. I emphasized the need to maintain close contacts with the People’s Bank of China, not with a view to interfering with these flows, but with a view to appreciating the background and enabling us, when necessary, to come up with the appropriate monetary policy response in the best interest of Hong Kong. This work is continuing smoothly and fruitfully.

**Inflation and the Policy Response**

I am sure some of you would want to point out that inflation, if allowed to persist, would erode Hong Kong’s competitive position as an international financial centre. This is true. But at the risk of appearing to be politically naive, I would like to put forward an alternative argument for your consideration. Prices increase because the growth of demand is outstripping the growth of supply. Other things being equal, higher prices would in time eliminate excess demand and lead to a slow down in the rate of increase in prices to the extent that our competitiveness would be restored. If this market mechanism is efficient enough, perhaps this automatic process of adjustment would not be too intolerable. I know that this is a very unpopular view about inflation, and perhaps not a view that chief executives of monetary authorities would readily make in public. But this argument also happens to be sound, at least theoretically, as anyone with some basic knowledge of economics would agree.

The problem of course is that in the real world we rarely have a perfectly efficient market. The adjustment therefore may take longer than is felt by some to be acceptable. Certain business operations are rather immobile. Once they are moved to other centres, they may not come back. The market adjustment may also be too unsettling for the community generally and for those who are being disadvantaged by, rather than benefiting from, the very rapid structural change that Hong Kong is undergoing. So even if the economic argument is broadly sound, and our competitiveness is not in the long term as threatened as it appears to be by inflation, the undesirable social effects require that a responsive government should do something, and be
seen to be doing something, about inflation. This is particularly true in the rather more politicized environment of today. And this presents us with another challenge, and a rather more political one.

But I am afraid this challenge is something that the Hong Kong Monetary Authority would be ill advised to take on. There is of course the over-riding objective of our monetary policy which is to maintain exchange rate stability. I am acutely aware of the position taken on the subject by our host and another speaker of today’s symposium. But for Hong Kong in transition, confidence in the international value of our currency is of utmost importance. And I am glad that the people of Hong Kong overwhelmingly agree with this government policy. There are risks that we clearly should not take.

In any case, if we were to bring down inflation using monetary measures, we would have to do so by increasing the cost of funds to businesses and those who pay home mortgages, through higher interest rates, so that they make less profits and have less money to spend, thus dampening the excess demand that had been the cause of inflation. This adjustment process, I would argue, would be even more painful to all concerned than that under existing arrangements. It would also involve, through the higher cost of funds, and under its influence possibly a stronger exchange rate, an inevitable erosion of our competitiveness. But very soon, under rather depressed economic conditions, the strength of our currency would be brought into question. When sentiment in our freely convertible currency change for the worse, we would have serious difficulty in defending it. We have seen what happened to the weaker currencies in the Exchange Rate Mechanism in Europe. We clearly do not want that to happen to the Hong Kong dollar. I believe that, in the overall interest of Hong Kong, we should meet the challenge of containing inflation by steadfastly maintaining our track record of fiscal discipline. I believe we should as far as is practicable ensure that market imperfections are removed so that market adjustments can work smoothly and quickly. I believe we should continue to tackle the supply side, and that means more land and more of the right types of labour that are in short supply in Hong Kong.

**Mobility of capital**

To maintain the comparative advantage of Hong Kong, there are other challenges at the micro economic level. These involve ensuring that Hong Kong has the flexibility to respond to market needs and continue to undergo structural change. I am referring to the mobility of resources from one sector of the economy to another. The flexibility of land use in Hong Kong is something that the official side has significant influence. I am sure those
responsible are well aware of the need for flexibility here, specifically for a relative shift in the supply of land from those for industrial use to those for commercial and residential use. This is an area that I plead ignorance other than perhaps to say that a reduction of bureaucracy and an increase in alertness to market signals may help. I also plead ignorance on how the mobility of labour from one industry to another can be enhanced, in particular from the manufacturing sector to the service sectors. Here, social, educational, manpower, transport and other issues are involved. Some of these are difficult and emotive issues which I cannot claim to have any in depth knowledge or insight.

So I better just focus on the mobility of capital, an area in which the HKMA has certain responsibilities and influence. At the risk of over simplifying the matter, the challenge here is basically to ensure that we have a system whereby funds are allocated or raised, and moved, efficiently from those who have got them to those who can put them to good use. In Hong Kong we already have one of the most efficient banking systems in the world, performing the traditional banking function of intermediation between depositors and borrowers. There is also a liquid stock market with a large market capitalization for companies to raise equity funds directly from investors. But what seems to be less well developed is a debt market in the domestic currency.

There is no shortage of demand for Hong Kong dollar debt instruments. There is a group of investors who find the rate of return of deposits with banks too low and equities too risky. And the demand for fixed income investments will increase with the growth of retirement funds, whether or not brought about by legislation. What are lacking include:

(a) an adequate supply of Hong Kong dollar debt instruments of investment quality;

(b) benchmarks for long term interest rates for the Hong Kong dollar as references for pricing bond issues by those who want to tap the market; and

(c) a good market infrastructure with active market makers and a cost effective system for the clearing and safe custody of the debt instruments.

We have been taking action on these fronts. We introduced the Exchange Fund Bills programme at the beginning of 1990, although not primarily for market development purposes at that time. We have gradually extended that programme and are now also issuing two-year Exchange Fund Notes. I hope
soon we shall be in a position to start the issue of three-year Notes. We shall also be introducing legislation to facilitate the issue and clearing of debt instruments in paperless form so that the Central Custody System that we have been developing in-house in the HKMA can be put to use by private sector issuers. This will form part of the Banking Amendment Bill to be introduced shortly into the Legislative Council. We have made a good start and there is much support from the financial community for us to continue in our efforts. Clearly there is still much to be done, not least tackling the most difficult issue concerning profits tax on interest income. But, working together with market participants, I am sure we will be able to fill this gap in our capital markets to the overall benefit of Hong Kong.
Liquidity Management

David Carse

INTRODUCTION

I am pleased to have the chance to speak to this distinguished audience today. I understand that this is the maiden seminar organised by the DTC Association. May I take this opportunity to wish the Association every success with this new venture. I hope that it will be the first of many such initiatives.

As you will be aware, the Hong Kong Monetary Authority has been reviewing its liquidity supervisory regime since July 1992. I am sure that you will think that this is an awful long time. If it is any comfort, I can tell you that the Bank of England took a lot longer to review its liquidity policy. I think that this reflects the natural complexity of the subject. Unlike capital adequacy, there are no internationally agreed liquidity requirements. It would in fact be extremely difficult to agree on these given the diversity of deposit taking institutions.

If you think about the situation here in Hong Kong, we have many types of institution: large and small locally incorporated retail banks; dts; foreign branches, some doing wholesale business and some with large retail presences. Each of these types has a different composition of assets and liabilities, and each is exposed to different liquidity risks. It is not surprising that we should have found it difficult to come up with a liquidity regime which could be applied across the banking system.

Indeed a number of institutions said that we should not even try - in particular, it was suggested that some or all of our requirements need not be applied to branches of foreign banks or to those institutions taking little or no deposits from the general public in Hong Kong. On the other hand, however, we had some of the locally incorporated retail banks telling us that we should not, to put it crudely, let the foreign and wholesale banks off the hook.

Achieving an acceptable compromise between these different points of view was, to put it mildly, difficult. However, after extensive market consultation, I hope that we have virtually finalised all the details of the new

Mr. David Carse is the Deputy Chief Executive (Banking) of the Hong Kong Monetary Authority. The speech was given to the DTC Association on 18 November 1993.
liquidity supervisory regime. We intend to introduce it in April 1994, though I recognize that we will have to take account of the systems implications for the banking system. This seminar is therefore opportune and provides the HKMA an ideal forum to introduce the new regime to you.

THE SUPERVISORY FRAMEWORK

First, let me put our new policy into context. Everyone will agree that Hong Kong is one of the major international financial centres in the world, ranking alongside London, Tokyo and, I have to concede, Singapore. One of the primary objectives of the Hong Kong Monetary Authority is to maintain Hong Kong's position both before and after 1997.

To achieve this goal, we must have, among other things, an effective banking supervisory system to help ensure the soundness and stability of the banking system. The general principle of our supervisory policy is to keep Hong Kong in line with international supervisory standards, in particular those recommended by the Basle Committee of Banking Supervisors. During the process of policy development, we are conscious of the need to avoid over-regulation while ensuring that effective prudential requirements are in place to prevent excessive risk-taking. Our aim is to construct a supervisory framework which achieves this objective, but within which banks are free to do business and take commercial decisions.

Liquidity is of course an important part of the supervisory framework - it is after all one of the components of the widely used "CAMEL" rating system. Although the main focus of supervisory attention in recent years has been on capital adequacy, I would argue that liquidity is perhaps even more important. In situations short of actual insolvency, a bank may be able to survive with inadequate capital for some time. But insufficient liquidity will trigger an immediate crisis. In other words, a bank must always be in a position to pay its obligations as they fall due. That should be the objective of a prudent liquidity policy.

THE REASONS FOR OUR REVIEW

Given the importance of liquidity, it is right that we should review our supervisory policy in relation to it on a regular basis. The fact that the Basle Committee produced a paper on the measurement and management in liquidity in 1992 provided a good background against which to conduct our review. But of course we had a more specific trigger arising out of the bank runs which happened in the summer of 1991 after the collapse of the BCCHK. Although these runs were triggered by unfounded rumours and were quickly
resolved, it demonstrated once again that the deposit base in Hong Kong is perhaps more volatile than that in other major financial centres. It also demonstrated the importance of being able to generate sufficient cash to be able to meet withdrawals of deposits in the first few days of a run. This enables alternative sources of liquidity or assistance to be obtained. Moreover, if depositors realise that they can withdraw their deposits on demand, the incentive for them to make withdrawals should be removed - unless it is clear that the bank is in a terminal condition.

THE BASIC PRINCIPLES OF OUR REVISED APPROACH

I would like now to outline some of the basic principles which underlie our revised approach to liquidity. Although the precise details of our proposals have changed over time in response to comments from the banking industry, I think that we have been reasonably consistent in adhering to these basic principles. Let me go through what I see as the main ones:

First, we believe that the main responsibility for the prudent management of liquidity, as with other aspects of their business, rests with the authorised institutions themselves. That is why we ask you to produce liquidity policy statements. If you cannot set down in writing how you manage your liquidity, that should worry you as much as us. The role of the HKMA in this process is to ensure that institutions' liquidity policies meet minimum standards of prudent conduct, taking account of the particular business of the institution concerned.

Second, the complicated nature of the liquidity management means that no one indicator of liquidity gives the right answer. It is necessary to look at a variety of factors such as the liquidity ratio, maturity mismatch, stability of the deposit base and loan to deposit ratio.

Third, the relationship between, and relative functions of, the liquidity ratio and the maturity mismatch profile need to be understood. We regard the role of the liquidity ratio as being to provide the "breathing space" I have talked about in the event of a funding crisis. It is particularly applicable to those institutions which have significant customer deposits which have no fixed contractual maturity or maturities which can be easily broken. The maturity mismatch on the other hand is used to monitor an institution's ability to manage its day-to-day liquidity needs under normal circumstances. It measures whether an institution is running excessively large negative mismatches which could put an undue strain on its borrowing capacity. It is particularly suitable for monitoring the liquidity of institutions engaged in wholesale business. This is not however black and white: both measures of
liquidity may be relevant to wholesale and retail institutions.

Fourth, we believe that the principal focus on liquidity should be on the short term - on the positions out to 7 days and 1 month. However, the maturity mismatch profile does also give the opportunity for a longer term perspective.

Fifth, the liquidity ratio should be real not cosmetic. It should consist of liquefiable assets which are high quality and which can generate cash quickly either on maturity or by sale or by pledge. This principle has led us to look carefully at certain intra-group transactions and particularly at back-to-back transactions.

Finally, the adequacy of liquidity needs to be looked at under various scenarios. A liquidity crisis may arise at different levels - for a foreign bank, for example, the problem may simply be confined to its operations in Hong Kong. But, however unlikely it may appear, it cannot be ruled out that the whole bank may be affected. Our supervisory regime needs to take account of this possibility, while not giving it disproportionate weight. Similarly, banks need to prepare contingency plans for such a case.

It was on the basis of these principles that we carried out our review, formulated our proposals and conducted our consultation. I do not propose to go into the history of this in any detail. Clearly, our proposals changed over time which is what you would expect if the process of consultation is to be meaningful: we do not expect you to act purely as rubber stamps. I suppose that the main changes from what we originally intended are that we have moved away from the exclusive emphasis on the 7-day breathing space in our original proposals on the liquidity ratio; we have not imposed a daily minimum requirement for the liquidity ratio; we have not published numerical across the board guidelines for the Tier 1 ratio and the maturity mismatches; and we have adopted a more relaxed attitude towards back to back transactions.

THE TREATMENT OF FOREIGN BRANCHES

One of the main driving forces behind these changes has, as I have indicated, been the need to try to achieve a balanced approach towards both locally incorporated and foreign institutions. In doing so, we have had to counter the view that the primary responsibility for the supervision of the liquidity of international banks rest with the home supervisor. I do not accept that this is the case. First, of course, we have our own statutory responsibilities to promote the stability of the banking system and to protect depositors. This requires us, among other things, to have regard, to the liquidity of all institutions in Hong Kong including branches of foreign banks. We believe that this is
also consistent with international supervisory standards. In particular, the Basel Concordat which governs the sharing of responsibility between supervisors makes it clear that the supervision of liquidity is a joint responsibility. It says, for example, that:

"The host authority has responsibility for monitoring the liquidity of the foreign bank’s establishments in its country; the parent authority has responsibility for monitoring the liquidity of the group as a whole."

What we have tried to do with our final set of proposals is to strike the balance between host and home supervision in a sensible and pragmatic way, giving due weight to the need to maintain Hong Kong’s position as an international financial centre. We have therefore been prepared to adopt a more flexible approach to the liquidity of branches of foreign banks. This is however subject to the overriding condition that the head office knows what the Hong Kong branch is doing and the home supervisor is aware and content.

We have applied this principle particularly in relation to back to back transactions between a branch and its head office. We have agreed with some reluctance that these transactions will count as liquid assets - but only in the case of banks whose liquidity is managed and supervised on a global basis. And we will want assurances from head office that no attempt will be made to repudiate the transactions on grounds of artificiality, even in the event of problems affecting the bank as a whole. We are not seeking legally binding undertakings. Rather, we want all parties to be clear about, and agree, the nature of these transactions and our expectations in respect of them. These parties include the home supervisor whose awareness of the arrangements we would wish to have confirmed to us. Given the comfort which we have been told we should take from the oversight of the home supervisor, I do not see how this can be objectionable.

**AN OVERVIEW OF OUR APPROACH**

What therefore have we ended up with as a result of the consultation exercise? I will leave the detailed explanation to my colleague Mr Y K Choi who played an invaluable role in formulating our proposals and who will be speaking this afternoon. Instead, I will give an overview of our new approach.

It is the essence of the new approach that we take a broader view of what constitutes “adequate” liquidity. This reflects the complexity of measuring liquidity risk to which I have already referred. Looking at a range of indicators gives us the best chance of detecting potential problems. For example, it is possible for a bank to have a liquidity ratio which is well above the statutory
minimum at the same time as having a loan to deposit ratio well in excess of 100%. This may or may not be a cause for concern, depending on the type of institution concerned and the nature of its business. But at least the apparent anomaly puts us on notice that there may be something worth looking at. Similarly, an institution may be able to massage downwards its loan to deposit ratio by bidding for large customer deposits at above market rates of interest. There is some evidence that this is going on at present and it is an issue that we have raised with a number of banks. The problem is that while the loan to deposit ratio may be improved, this will be only cosmetic if the deposits in question are volatile and are liable to be withdrawn on maturity. Stability of the deposit base is one of the qualitative factors which we have said we will look at in assessing the adequacy of liquidity. This may in turn lead us to look at the assets side of the balance sheet, because at the end of the day an institution should not grow its balance sheet in excess of its capacity to fund it in a stable manner.

THE LIQUIDITY RATIO

Despite this broader approach, the liquidity ratio will however remain at the heart of our liquidity regime. This is not surprising given that there are specific statutory requirements relating to the ratio in the Banking Ordinance. The basic framework of the ratio calculation has been retained with the existing focus on 1 month liabilities and assets which can be liquefied within 1 month. But we have tried to make the ratio more meaningful, by only allowing the inclusion of assets which can reasonably be expected to generate genuine liquidity in a crisis. Typically, liquid assets consist of short-term interbank claims and government paper and other assets which are eligible for rediscount with the central bank. However, in Hong Kong, the amount of Exchange Fund bills and notes totals only HK$30bn, which represents only about 2.5% of the HK$ assets of the banking system. The amount of such paper is therefore comparatively small. We have recognized therefore that the definition of liquid assets here must be wider than that in other countries. At the same time, we have tried to tighten the scope of that definition. We have also tried to increase our focus on very short-term assets.

The detail of this I will leave to Y K Choi. But there are three innovations which I should mention. First, we have introduced the concept of "qualifying credit ratings" which determines whether marketable securities issued by certain borrowers are eligible for inclusion as liquefiable assets. In summary, the test is that the securities must be rated "A" or better by Moody's or Standard & Poor's or a comparable rating agency. This proposal has generated a certain amount of heat. It has been argued that we are being too restrictive. It has been suggested that we should lower the credit rating test or perhaps get
rid of it altogether to allow the inclusion of securities which are "de facto easily marketable" or even of equities.

With respect, such suggestions fail to meet the point. All sorts of marketable securities may be perfectly acceptable as long term investments from the holders' point of view. But that is not the same thing as saying that they are liquid assets. To pass that test, the marketable securities should be capable of being sold for cash quickly (or used as security for borrowing), at little or no cost penalty; they should not be subject to significant credit risk; and there should be a deep enough market to ensure a stable demand for the paper. We believe that these conditions can best be satisfied by restricting eligibility to "A" grade paper. We have checked with treasury manager of a number of international banks and trust companies in Hong Kong who have told us that they would be reluctant to invest in lower grade paper. We think that supports our case.

I should say before leaving this topic that we have of course provided for certain exceptions to the normal credit rating test, for example in relation to paper issued by the Hong Kong Government, the Exchange Fund and various public sector entities in Hong Kong and multilateral development banks; authorised institutions are also exempted.

Another innovation is the use of "liquidity conversion factors" which will be assigned to each liquefiable asset to reflect its credit risk, market risk and convertibility into cash. This enable us, for example, to be more confident about including items such as loan repayment which are susceptible to credit risk because we can assign a conservative conversion factor of 80% to these. What this means is that for every 100 of loan maturing in 1 month of less, only 80 will be allowed to count as liquefiable assets.

**Tier 1 Ratio**

I have laid stress earlier on the need for institutions to be able to survive the first few days of a run. Clearly therefore, we should be looking at the ability of institutions to generate sufficient cash during this critical period. This led us to introduce the concept of "Tier 1 liquefiable assets", ie those assets which are capable of generating cash within 7 days. We will use this information to calculate a Tier 1 liquidity ratio.

Recognising the sensitivities of certain institutions on this point, we have not published an across the board guideline for the Tier 1 ratio. But where we come across an institution which has a Tier 1 ratio significantly below its peers we shall raise that matter with the institution concerned. This use of
peer group comparisons will be an important feature of the way in which we administer the new regime, including the analysis of maturity mismatches. Over time this may lead us to develop more explicit guidelines for the size of the Tier 1 ratios and short-term mismatches which institutions ought to observe.

**TREATMENT OF NEGOTIABLE DEBT INSTRUMENTS**

Before I leave the topic of the liquidity ratio I should mention one aspect which caused the dtcs some concern. This is our policy of deducting from liquefiable assets those negotiable debt instruments issued by institutions which have a maturity of 1 month or less. We have been asked why we have given these a harsher treatment than other interbank or money market borrowing.

The problem in our view is that such transactions are generally “one-offs”. It is known for certain that they are going to mature within one month and thus reduce liquid assets. By contrast, it should normally be possible to roll over maturing interbank debt. We are however prepared, as always, to be pragmatic on this. If individual institutions can persuade us that there is reasonable assurance, based on past experience, that the maturing debt instruments can be replaced and are not simply “one-off” transactions, we will be prepared to treat them in the same way as interbank borrowing. This might be, for example, where the institution is able to tap a reliable pool of depositors through regular issues of certificates of deposit. Another solution would be to satisfy us that alternative funding was prearranged to cover the maturing debt.

**THE WAY FORWARD**

Ladies and gentlemen, I could talk for much longer on this subject, but I am conscious that you have a full day ahead of you. I shall therefore bring my remarks to a close by explaining where we go from here. There are still a few loose ends to tie up on the consultation exercise, but I hope that these will not delay us long. We will then have to turn our consultation paper into a formal policy paper and to amend the Fourth Schedule of the Banking Ordinance to take account of the changes to the calculation of the liquidity ratio.

For their part, institutions should be beginning to think about the liquidity policy statements which we will be asking them to prepare for submission to us by the end of January 1994. They should also be considering the necessary changes to their computer systems. As I have said, we would like to introduce the new regime from 1 April 1994.
I would like to close by thanking all of those who have assisted in this review exercise, even those of you whose comments have not always been complimentary. I should express particular gratitude to the members of the Working Party on Liquidity. And my thanks once again to the Association for organising this seminar and giving me the chance to speak.
Banking Supervisory Developments

David Carse

I am grateful to the Institute for giving me the chance to speak to you today. I last spoke at an Institute lunch almost two years ago when I set out my priorities in banking supervision in Hong Kong. That was a useful mind-clearing exercise and I am glad to have the chance to repeat it.

In reviewing my speech of two years ago, I was reassured to see that most of the issues I identified are ones which we have dealt with or are in the course of tackling. To report progress on just some of the points I mentioned in 1991:

1. we have introduced new legislation which gives us enhanced powers to obtain reports from auditors on authorised institutions’ internal controls and we have issued a new guideline on the sort of internal controls which we expect institutions to have. We have strengthened our relations with auditors by conducting 61 tripartite meetings so far this year compared with 24 in the whole of 1992;

2. we have shifted the balance of our operational supervision back towards on-site examinations while not losing sight of the importance of off-site reviews. In 1992 the number of on-site examinations rose to 121 from 87 in 1991. We expect the total to rise to over 150 in 1993:

3. we have tried to keep Hong Kong in the mainstream of world supervisory practice. We have supported the new standards for the supervision of international banks introduced by the Basle Committee in July 1992, and we have made adherence to these standards by home supervisors one of our conditions for granting new banking licences;

4. we have reviewed our liquidity requirements which is one of the priorities I identified in the wake of BCCI and I hope that our proposals can be implemented quite shortly. I shall return to the subject of liquidity later in my speech;

The speech was given to the Chartered Institute of Bankers on 8 October 1993.
5. we have continued to warn about the dangers to the banking sector of lending in an over-heated property market. Indeed, I had an acute sense of deja-vu when I re-read the words I uttered in November 1991. Talking about the 41% increase in mortgage lending over the previous year, I noted that I had advised authorised institutions to “look critically at ways in which lending criteria might be tightened”. Shortly afterwards, the banks introduced the now famous or, some would say, notorious 70% mortgage ceiling, about which I shall also have more to say later on.

However, there is one development which I did not anticipate in 1991. I spoke to you then as the Banking Commissioner. I now stand before you as the Deputy Chief Executive (Banking) of the Hong Kong Monetary Authority. This is something which I regard as a wholly positive development. It provides Hong Kong for the first time with a central bank which I believe will play a vital role in maintaining monetary stability in Hong Kong before and after 1997. From a supervisory point of view, we are already seeing the benefits of closer liaison with those responsible for the implementation of monetary policy. There is an obvious synergy between the HKMA’s three main functions:

1. to maintain currency stability within the framework of the linked exchange rate system;

2. to ensure the safety and stability of the banking system through effective banking supervision;

3. to promote the efficiency and integrity of the financial system and particularly of the payments system.

The purpose of this speech is to bring you up to date on where we are on the second of these objectives, namely effective banking supervision. There are a wide number of topics that I could deal with, but my time is short and I shall therefore concentrate on a few main issues: asset quality, including property lending, liquidity and our approach towards market risk and interest rate risk.

**Asset Quality**

It is appropriate that I should begin with asset quality, since poor asset quality that eventually erodes a bank’s earnings and capital is probably the most common denominator of problem banks. The banking supervisor’s highest priority should therefore be to analyze asset quality at a bank and
detect weakened portfolios as soon as possible.

This is the main purpose of our on-site examinations the frequency of which has increased sharply over the last 2 years as I have already mentioned. I am not saying that other aspects of a bank's operations should not be the subject of examination - for example, internal controls in the treasury area are also very important as are the controls over money laundering. However, the activities of most institutions are dominated by their lending and it is there that we must be particularly vigilant.

It may seem odd to make a big issue of asset quality at a time when that quality seems very good. The bad debt charge of local banks as a percentage of outstanding loans was only 0.25% in the first half of this year which is very low. But this is perhaps not surprising: banks have been operating in a very favourable atmosphere for the last two or three years. The economy has been buoyant and interest rates have been very low. This is a recipe for good asset quality. But as I have warned on a number of previous occasions, it would be unwise to plan on the basis that this situation will continue indefinitely. It seems to me that it is sensible to assume that we are at the bottom of the bad debt cycle.

If this analysis is right, it is clearly necessary for individual institutions to keep a close watch on credit standards; and this is something that we will be checking when we conduct our on-site examinations. However, I think that it is also necessary that the HKMA should improve its off-site monitoring of credit quality and in particular to be able to pick up any deterioration in that quality at an early stage. We are therefore proposing to introduce a new loan classification system. Under this, institutions will be required to report to the HKMA a quarterly breakdown of their loans and other assets into the categories of performing, special mention and non-performing. Non-performing loans will be further broken down into substandard, doubtful and loss. As you can see, we are not breaking new ground on this. Many other countries have a similar system - the surprise is that we have not introduced it previously in Hong Kong. We will also be asking banks to provide us with more sectoral information about their bad debt provisions which will also enable us to identify problem sectors and those institutions whose provisions against lending to a particular sector seem to be out of line with their peers.

We shall be issuing a consultative paper on our proposals in the near future.

One aspect of loan quality is the increasing concentration on property lending. In Hong Kong property-related lending by the whole banking sector has risen over the last five years from less than 30% to more than 40% of
loans for use in Hong Kong. For locally incorporated banks the percentage is even higher. Now, I do not claim to know what the right figure for the share of property lending should be. But I find the trend of an increasing share somewhat worrying. These worries are justified not by any signs of deteriorating asset quality in property lending at present. However, there are some signs of strain on the funding side of the balance sheet. All of you will be acutely aware of the difficulty of finding stable sources of Hong Kong dollar deposits. Some banks are apparently willing to pay substantial premiums over HIBOR in order to obtain large customer deposits. It should not be assumed however that such deposits represent a stable source of funding.

So far as property lending is concerned, our stance remains firmly on the side of restraint. This means in the first place continued support for the 70% mortgage ceiling. I would like to get away from the idea that the ceiling should be seen as a short term expedient to deal with a temporary problem of speculation. Rather, we regard as a prudent guideline for the long term. This is against the background of the tendency in Hong Kong towards asset price inflation and possible uncertain conditions in the run-up to 1997.

However, we do not see the 70% guideline as the whole story. While it provides a reasonable long-term cushion, even tighter criteria may be required in certain conditions. It is worth noting that mortgage lending grew by 35% at an annualized rate in the three months to August despite the 70% ceiling. This is simply too fast. I am glad therefore that some banks announced further tightening measures at the end of August. Preliminary indications are that this should lead to some slowing down in the rate of growth of mortgage lending in September, but it is not clear how sustained this will be given the seemingly insatiable appetite for property in Hong Kong.

Let me be clear: I am not predicting a collapse of the property market in Hong Kong, although it is the case that a boom makes a bust more likely. Rather, it is simple common-sense that you should not expand your balance sheet faster than your ability to fund that balance sheet with comfort. This means that institutions may have to lower their expectations for balance sheet growth even at the expense of reduced growth in earnings. Alternatively, they should be looking to diversify into other business areas which are less balance sheet intensive.

The issues I have been discussing are also part of our wider concern about liquidity. We have as you know been consulting with the banking system on a new set of proposals for the supervision of liquidity which involves a more comprehensive approach than hitherto. These proposals have been somewhat contentious largely because of the difficulty of arriving at a policy which could address the needs of both local and foreign institutions. We have just
completed the consultation on our second set of proposals. The general reaction has been more favourable than previously, though there are still some points of detail to be resolved. I hope that it will be possible to introduce the new regime at the beginning of 1994.

**INTEREST RATE RISK AND MARKET RISK**

I said earlier that asset quality was the principal concern of the supervisors. However, other types of risk are also important. Liquidity risk has obviously been one of our preoccupations over the last 2 years. We are now beginning to address other areas which have received less attention in Hong Kong and indeed elsewhere.

Two particular areas of attention are the related issues of interest rate risk and market risk. This is partly because the Basle Committee has issued Consultative Papers on the supervisory treatment of these risks. In the case of market risks, this would involve specific capital requirements against those risks. The Committee's proposals on interest rate risk would not involve any capital requirement; rather they set out a methodology for measuring interest rate risk and for identifying outliers, i.e., those institutions which seem to be running a higher amount of interest rate risk than their peers.

We have sent the Committee's papers to the banking sector for comments. The deadline is the end of this month. We will then pass the comments on to the Basle Committee. As part of the same exercise we have launched two surveys on interest rate risk and market risk. The latter is simply designed to find out how much of the instruments covered by the Basle proposals are actually held in banks' trading portfolios in Hong Kong. This will give us some idea of whether it is worthwhile to introduce the market risks proposals here. We should not automatically assume that the benefits will outweigh the costs.

Our survey form on interest rate risk is designed not simply to help us to respond to the Basle Committee but to help us actually to measure interest risk in Hong Kong for the first time. We have gone for the simple - some might say simplistic - approach of trying to measure the impact on banks' earnings of a 1 percentage point rise in various maturity bands up to one year. The objective is to identify those banks which are running large interest mismatches and which might be vulnerable to a sharp rise in interest rates. We have to bear in mind that if we ever had to protect the linked exchange rate it might be necessary to raise interest rates, and by a substantial amount. I hasten to add, however, that I am talking about a theoretical possibility.

If the survey form gives us useful information we may turn it into a regular
return in due course.

I hope that this has given you some idea of our current preoccupations. Let me just close by trying to put what I have said in perspective. The Hong Kong banking system remains one of the most profitable and healthy in the world. The central forecast is that it will continue to prosper for the foreseeable future. However, my message is that the banks should not be complacent. By all means hope for the best, but also make contingency plans for the worst.
Mr Chairman, Ladies and Gentlemen,

I am very honoured to be invited by you to address this distinguished gathering of bankers from the DTC Association on the topical subject of Liquidity Management. I speak with great trepidation this morning, as this is my maiden speech to bankers in Hong Kong, since my assumption of duties in the Hong Kong Monetary Authority last month. My colleagues, David Carse and YK Choi have already given you the supervisory perspective over liquidity management. Dr Sam Srinivasulu has also bombarded you with more technical arcana. What can I really add to this subject?

Since you have been looking at the supervisory and asset-liability management aspects of liquidity, I thought I might provide you with a more broad sweep perspective on how a central banker views “Financial Innovation, Liquidity and Monetary Management”. This is indeed a heavy but well trodden subject, but, in the light of rapid changes in the market place, well worth revisiting. Nobel Laureate Paul Samuelson used to quote an old professor, when asked how he got away with asking the same question during every examination, replied that he simply changed the answers. More than 30 years ago, the concept of Liquidity was considered so important that it required a Royal Commission in 1959- the famous Radcliffe Report - to conclude that the central bank should manage liquidity and the level of interest rates, rather than the supply of money, because the velocity of money was considered unstable and unpredictable.

The financial landscape has changed drastically since the Radcliffe Report. Financial innovation, de-regulation, and the globalization of markets have made the whole world a large pool of liquid funds, literally sloshing from one financial centre to another in search of lower risks, higher yields and good liquidity. This massive flow of resources has complicated the task of domestic monetary management. Many of you here, investment bankers and asset managers, have contributed to this financial innovation, casting new light on old concepts. It is this new light that I would like to reflect on.

Mr. Andrew Sheng is the Deputy Chief Executive (Monetary) of the Hong Kong Monetary Authority. The speech was given to the DTC Association on 19 November 1993.
DEFINITIONS OF LIQUIDITY

First a few definitions: What do we mean by liquidity? The fact that we need to spend two days talking about how to measure liquidity, and then to define our strategy to manage liquidity must mean that it is quite a complex phenomenon. As the Queen of Hearts in Alice in Wonderland quipped, it means exactly what we want it to mean. To prevent misunderstanding, I propose to run through a number of definitions so that we can understand each other on common terminology.

Dr. Srinivasulu has provided what he called a strategically defensive - but what I would consider classical - definition:

"Liquidity is the availability of funds, or assurance that funds will be available to honor all contractual cash outflows as they come due".

On the other hand, using his "strategically offensive definition", a liquid person or institution is one that is able to "take advantage of profitable investment/loan opportunities". I take that to mean one who is able to access the market for funds to meet contractual obligations.

A liquid market is defined as a high volume trade market which has many traders, who are always willing to quote a competitive price. Conversely, an illiquid market has few traders and few quotes, with wide bid-ask spreads.

Moving on to liquidity and central banking, many of you would know what is a "liquidity squeeze": that is, the tightening of liquidity because of monetary measures to constrain monetary growth, which may raise interest rates and/or the ready access of funds by individuals or institutions. You may also know the definition of a "liquidity overhang" - no, it does not mean too many bankers having too much to drink.

Seriously, I find Dr. Srinivasulu's first definition an important one, because it highlights the contractual nature of banking. We take banking so much for granted that we forget quite often that banks essentially straddle two sets of contracts - a deposit contract on the liabilities side, and a loan or investment contract on the asset side. Liquidity for the banking system is needed because banks, by their very nature, carry a maturity and risk transformation function - they have to have liquid assets to meet their contractual obligations. Failure to do so constitutes a default that may carry substantial reputational risks for the defaulting party. In an interlocking market, where there is substantial transactions between different parties, counter-party risks quickly emerge as liquidity risks, as the inability of one party to pay on time creates difficulties
in payment for another party. If such liquidity difficulties are passed in a chain reaction to other parties, especially an important player in the market, contagion occurs, and systemic risks arise.

Indeed, failure to meet contractual obligations on time raises uncertainty in the market, causing interest rates to rise, which can affect both the liquidity in the market, and the solvency of market participants. First, uncertainty would cause buyers to withdraw from the market, so that liquidity disappears. Second, sellers of financial instruments may find that they can do so only at large discounts. Such interest rate changes will also cause valuation losses on holders of fixed income instruments. These twin effects demonstrate that there is a direct causation between illiquidity and the erosion of solvency.

**CENTRAL BANK MANAGEMENT OF SYSTEM LIQUIDITY**

The Hong Kong Monetary Authority's interest in the liquidity of the domestic market stems from its three major roles. Firstly, in maintaining currency stability, within the framework of the linked rate system, through sound management of the Exchange Fund, monetary policy operations and other measures. Secondly, ensuring safety and stability of the banking system through effective supervision; and thirdly, promoting the efficiency, integrity and development of the financial system, particularly payment and settlement systems.

I believe we all subscribe to the view that real economic activities thrive under a condition of stability. The stability in the external value of the currency, the stability of the financial system, and the efficiency and robustness of the financial infrastructure have all been factors in Hong Kong's economic success story. At the risk of boring you, it is worthwhile elaborating for a moment on the mechanics of monetary and liquidity management in Hong Kong.

Central banks around the world provide or influence liquidity of the banking system through four basic methods. First, the provision of intra-day or overnight credit, when clearing and settlement is across the books of the central bank. Second, through variations in the statutory reserve requirements. Third, through open market operations, when the central bank buys and sells securities that would affect the liquidity of the banking system, and finally, as the lender of last resort, when the central bank provides funds to the banking system to alleviate sharp changes in liquidity that threatens the system as a whole.

In Hong Kong, the interbank clearing and settlement system is satisfactorily handled by the Clearing House of the HKAB. If a bank runs into a debit
position in its clearing balance, it may obtain funds from its settlement bank or the Management Bank depending on the arrangements made on a bilateral basis. The Authority does not provide intra-day credit, but to assist the banks to manage their liquidity better, the Authority, for the account of the Exchange Fund, will accept or lend overnight funds with banks through its Liquidity Adjustment Facility (LAF). Banks with surplus or shortage funds may be able to place or borrow funds with the HKMA at the LAF bid and offer rates, currently at 2% and 4% respectively, between 4 pm to 5 pm on Mondays to Fridays and from 11.30 am to 12 noon on Saturdays. A bank wishing to borrow funds under the LAF may do so through a Sale and Repurchase Agreement (Repo) of government debt or Exchange Fund Notes/Bills.

Unlike other central banks, Hong Kong has no statutory reserve requirements, and only a liquidity requirement, which has been discussed in full by my colleagues David Carse and YK Choi. However, since the introduction of the Accounting Arrangements in 1988, the HKMA has been able to influence the level of interbank liquidity, defined as the sum of the balances on the clearing accounts of all licensed banks in Hong Kong, which ultimately boils down to a debit or credit balance on the books of the Management Bank of the Clearing House of the Hong Kong Association of Banks.

Under the Accounting Arrangements, the Management Bank maintains a Hong Kong dollar account (the Account) in the name of the Exchange Fund, with the HKMA. The Authority determines the level of the balance (the Balance) in the Account. No interest is paid on credit balances in the Account. If the Net Clearing Balance (NCB) of the rest of the banking system exceeds the Balance, the Management Bank pays interest on the excess. If the NCB is in debit, then the Management Bank pays interest also on the debit amount to the HKMA. Currently, the interest rate payable is Best Lending Rate (BLR) or the Hong Kong Interbank Offer Rate (HIBOR), whichever is higher, up to a certain amount. Beyond this, the interest rate is 3% over BLR or HIBOR, whichever is higher.

The HKMA uses the Account to effect transactions with the banking system, and thus it could affect the banks’ NCB through purchases or sales of government securities or foreign exchange. Alternatively, raising or lowering the Balance would have the effect of improving or tightening interbank liquidity, thus influencing the level of domestic interest rates.

The third channel in which the HKMA can influence interbank liquidity is through the issue or redemption of Exchange Fund Notes and Bills. Since their introduction in early 1990, they have become highly successful, with an outstanding amount of HK$25 billion in Bills and HK$6 billion in Notes and
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a daily turnover well in excess of HK$10-15 billion. They have added liquidity to the domestic money market by introducing high quality paper and a benchmark yield curve in HK dollar fixed income paper of up to 3 years. The success of this can be seen from the recent issue of 3 year World Bank paper, which used the 3 year Exchange Fund Note as a benchmark for pricing.

The fourth window is the lender of last resort function. As the term implies, the facility should be used only as a matter of last resort, not first resort. The responsibility of the liquidity of any institution is that of the bank management and shareholders. Like any other central bank, the HKMA can provide temporary facilities, properly secured, to any solvent institution to tide over temporary liquidity needs. However, the HKMA's primary responsibility in respect of liquidity is to the stability of the banking system as a whole, not to any particular institution.

Financial Innovation and Liquidity

Let me now turn to my main theme this morning, which is the effect of financial innovation, banking technology and globalization of financial markets on market liquidity as a whole.

I propose to discuss the impact of technology on liquidity through a market framework. Despite the sophistication of technical terms, modern financial markets differ from classical markets only in form, not in substance. Any market, financial or real, boils down to five critical components: what I call the five P's. It is People trading Products in a given Place, under a set of accepted Process and Prudential Rules.

First, people. There is no question that there is a generational gap in the comprehension of new financial products and innovation. I do not think that the explosion in financial engineering, with complex derivative instruments, program trading and risk management techniques is a historical accident. You will notice that the financial revolution of the 1980s coincided with the demise of the Cold War, which brought the best and brightest of quantum physicists, mathematicians and rocket scientists to pitch their minds to financial markets. Today, you need a PhD in Mathematics to understand what you mean by a vega, delta, and the Black-Scholes model. The first recommendation of the Group of Thirty's report on derivative markets is that senior management should understand and approve procedures and controls on derivatives operations.

Second, products. Financial markets basically trade contracts on property rights. The major difference between derivatives and plain-vanilla instruments is that the former are essentially contracts on contracts. More sophisticated
Financial innovation, liquidity and monetary management 73

Instruments are contracts on contracts on contracts, based on the assumption that the underlying property rights are legally transferable and enforceable through to the final holder of the product. Sophisticated mathematical models and concepts have allowed financial engineers to tailor instruments very precisely to meet specific needs, based of course, on many precise assumptions.

Third, place. In the past, financial markets were geographically bound to a physical place. With modern technology and telecommunications, electronic broking, screen placements, and linkages between international exchanges, the scope of the financial market has been widened both geographically and in terms of time zones. There is theoretically nothing to stop global trading and settlement on a 24-hour basis with screen-based trading that does not require dealing through a national exchange. What this means is that the comparative advantage of certain exchanges, such as time zone, proximity to population centres, and availability of skilled dealers may be disappearing fast.

Fourth, process. A financial transaction does not stop at the trade deal. For full completion of the contract, the trade must be cleared and settled. Markets migrate to those financial centres that trade, clear and settle both efficiently and robustly. The time lapse between trade and settlement has sharpened public awareness of payment system risks. Banking technology and modern telecommunications have made real time gross settlement (RTGS) and delivery versus payment (DVP) technical realities, which could minimize credit and liquidity risks. In recent years, the BIS, the Group of Thirty and all the major central banks around the world have made extensive studies of these issues, and have made efforts to modernize and upgrade the payment systems in leading financial centres. The continued success of international financial centres will depend on the quality of the financial infrastructure.

Fifth and finally, prudential rules. Every market operates under a set of rules of the game. The successful financial markets are those that have transparent and equitable rules and laws, that are fairly enforced. Markets are stable because they have stable rules and effective supervision. Modern technology has forced also the upgrading of laws, for example, the legal treatment of multi-lateral netting.

You will notice that these elements that make a successful financial centre all apply to Hong Kong. As the East Asia region grows, we are witnessing the arrival of increasingly sophisticated financial instruments and techniques to meet the growing needs of the most dynamic economic region in the world. New players bring new technology and systems, as well as new risks. The places greater demands on management - more timely monitoring of liquidity positions, and finely balancing asset-liability maturity profiles. Indeed to
maintain market credibility, institutions have been building up on high quality tradeable assets to ensure that they meet their more demanding needs. In so doing, balance sheets have expanded, both above and below the line. Asset securitization has also raised the level of liquid assets. Assuming that liquidity will always be present, and that they are able to hedge their risks through new techniques, many market participants are making larger trades.

Former Secretary of State Henry Kissinger made famous the phrase that the Chinese ideogram for "crisis" stood for risk as well as opportunity. It struck me that the Chinese translation of "assumption" is the combination of the words "false" and "certainty". Thus, an aggressive strategy of liquidity management assumes that one could always rely on the market to meet one's liquidity needs. This may be true in normal times for many, but it cannot by definition be true for all. Thus, what many market players take as certain can prove in times of market change or volatility to be false. That is the fallacy of composition. Indeed, recent experience in the ERM crisis showed that when currency markets became volatile, the Black-Scholes standard option pricing models did not work well, leaving many banks that used dynamic hedging techniques to lose money.

All this goes to reinforce my supervisor colleagues' viewpoints: that liquidity should be monitored and managed carefully at the micro (individual institution) level, as well as the macro (system-wide) level. Hong Kong is no stranger to volatile markets, and higher levels of liquidity and capital would cushion the system against most shocks. Dr Srinivasulu has stated that the critical factor for success in an offensive strategy of liquidity management is the confidence factor. But in the high-tech world of financial engineering, my word is my bond is no longer good enough. The old cliche "Banking is information on the move" is not strictly correct. Real time gross settlement and delivery versus payment, which is now a technical reality, has tried to minimize credit risks in financial transaction. To rephrase Marshall McLuhan, in modern banking, "the money is the message". Value is delivered with the information.

To repeat, the cornerstone of any stable and sound financial system is confidence, but this must be built on the solid foundations of adequate liquidity (as David Carse said: real, not cosmetic), capital and professional competence.

We are delighted that the DTC Association in conjunction with Arthur Andersen is helping to raise the level of professional understanding of a complex but important subject. My thanks once again to the organizers for giving me this opportunity to meet you all.
I am very honoured to be invited to say a few words about Developments of Financial Markets and Products. Since my colleagues on this panel from the Hong Kong Futures Exchange and the Stock Exchange are much better equipped to talk about the futures and the equity markets, I shall stick to the development of the HK dollar debt market.

The basic foundations of any market comprise what I call the 5 P’s: People trading Products at Prices, within an accepted Prudential Framework and using a technological Platform or set of Procedures. Financial markets differ only from real product markets in the sense that the products traded are financial instruments or contracts. I shall try to illustrate the development of the Hong Kong dollar debt market with this conceptual framework in mind.

Until fairly recently, the bulk of the HK dollar debt paper comprised mainly bank certificates of deposit (CDs) and commercial paper, such as Bankers Acceptances and Bills of Exchange. In the 1980s, various companies began to issue fixed rate or floating rate paper - the first being MTRC in 1979. The banks also began introducing fixed rate or floating rate Certificates of Deposit (FRCDs). By 1993, Fixed Rate HKD paper new issue had increased to 95 with a total value of HK$16.6 billion, compared with 96 involving HK$9.25 billion in 1991. According to UBS statistics, in the first four months of this year, the new issues amounted to 40 deals with a total value of HK$6.8 billion. By comparison, in 1993, there were 20 new floating rate paper issues involving HK$8.3 billion.

What is particularly interesting in the development of the fixed rate market is the changing pattern of issuers and maturity profile. In 1991, 77% of new issues came from the commercial banks, with 5% each by supranational and the HK Government, and the balance of 13% by the corporate sector. By 1993, the commercial bank issue share had fallen to 43%, while the supranational share had risen to 27%, while the HK Government and the corporate sector took 15% each.

The speech was given at the Conference on Pacific Basin Business, Economic and Finance held by the Chinese University of Hong Kong on 27 May 1994.

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The maturity profile of new issues has also lengthened considerably. In 1991, paper of more than 7 year maturity accounted for not more than 4% of new issues, but the proportion increased to 43% by 1993. Since such paper would involve repayment after 1997, this demonstrated considerable confidence and maturity of the market in Hong Kong.

Let me now say a few words about how the Hong Kong Monetary Authority is trying to deepen and broaden the HK dollar debt market through a number of past and present initiatives. First, the Exchange Fund Bills and Notes Programme. This was initiated in 1990 with two basic objectives, namely, to introduce high quality paper that would help the Monetary Authority manage domestic liquidity, and to generate a benchmark yield curve for HK dollar debt paper. We currently have an outstanding issue of HK$37.5 billion in EF Bills and HK$4.8 billion in EF Notes of maximum 3 year maturity. Sometime in the second half year, we will consider the issue of 5 year Exchange Fund paper.

As you can see from Chart 1, the benchmark yield curve follows quite closely the US Treasury yield curve. Indeed, when the 3 year paper was first introduced in October last year, the World Bank was able to come in to tap HK$1 billion at a very narrow spread over the 3-year EFN yield. By and large, the introduction of the HKD benchmark yield curve has tended to narrow the spreads between HKD debt paper and US treasuries.

The Exchange Fund Bills and Notes Programme is currently one of the most liquid markets in the world, with daily turnover amounting to HK$20 over billion or about half of total debt outstanding. 31 market makers give an active market quote with the short selling facility. The paper is cleared efficiently by the computerized book-entry Central Moneymarkets Unit (CMU) Service. As you know, the CMU service was extended to other HK dollar debt paper in January 1994, and currently has 38 issues of paper with HK$4.9 billion value registered with the service. We are constantly upgrading the service provided and are currently discussing with both Euroclear and Cedel on linkages with their clearing systems, since a number of HK dollar supranational issues are registered with them.

The HKMA has also looked at how the liquidity of high quality HKD debt paper can be enhanced. For example, we have already announced that MTRC and Airport Authority paper can be used for REPO purposes to obtain liquidity under the Liquidity Adjustment Facility (LAF) of the HKMA. As a general principle, paper of banks rated at A- or higher, and paper of corporates rated at A or higher could be considered for such REPO purposes.

To sum up using the framework of 5 P's: the HKMA has tried to help
develop the HKD debt market by encouraging the issuance of high quality paper. The people trading the paper are largely the market makers, who are able to quote prices continuously to investors. We have used the market price mechanism to set a benchmark HKD yield curve, that has helped reduce the spread between borrowing in HKD and borrowing in USD. We helped to set the prudential framework by laying down the rules of the game in the market, through continuous consultations and discussions with the HK Capital Market Association. Finally, we have facilitated the clearing and settlement processing by providing the CMU technical platform that can efficiently clear a high volume of transactions. You will notice that we achieved this without providing any subsidy nor imposing any new legislation in the process.

THE HONG KONG SECONDARY MORTGAGE MARKET

I should perhaps take this opportunity to say a few words about the development or potential development of the Hong Kong secondary mortgage market. This subject has recently aroused quite a lot of public interest.

First, a few general observations. As you all know, there is an active primary residential mortgage market in Hong Kong. At the end of 1993, the amount of residential mortgages provided by all authorized institutions in Hong Kong in all currencies amounted to HK$267.9 billion or nearly 32% of GDP. This is quite a developed market, compared with 22% for France, 25% for Japan, 35-40% for Germany, 45% for the US and 60% for the UK.

Given such a large primary market, it is not surprising that most market specialists consider Hong Kong a fertile ground for the development of a secondary mortgage market, through the securitization of residential mortgages. It is well known that the secondary mortgage market in the United States has been a highly deep and sophisticated market. The development of secondary mortgage markets in other countries, which only began seriously in the 1980s, has had a more mixed history. In Europe, for example, between 1987-93, total issuance of residential mortgage-backed paper amounted to US$24.1 billion, of which $22.1 billion or 91.7% was UK paper. Thus, the development of the secondary mortgage market in continental Europe is still in its infancy.

In Australia, for example, the asset-backed securities market has become much more advanced, with 51 issues outstanding at the end of June 1993, with a face value of A$5.8 billion. In outstanding terms, however, the current face value of asset-backed paper declined from A$6.7 billion at the end of June 1992. New issues totalled A$1.1 billion in 1993 financial year, compared with A$2.3 billion in 1991. Mortgage-backed paper accounted for the bulk (88%) of the Australian asset-backed securities market.
In Hong Kong, asset securitization has been a fairly recent phenomenon. In 1988, an American bank sold HK$470 million of its residential mortgages in two tranches. Since then, there has been a small number of private placements, including arranged sale of mortgages between banks. Earlier this month, Bank of America (Asia) Ltd announced the sale of HK$350 million Mortgage Backed Securities through a private placement. We understand that a number of other issues are in the pipeline.

As can be seen from the international experience, the development of the secondary mortgage market is quite technical, and involve various issues that are perhaps not fully understood by the layman. In order to help understand these issues in greater depth, the HKMA established an Informal Group on the Secondary Mortgage Market in February this year to study the international experience, as well as the technical issues involved in market development. The Informal Group comprises experts on asset securitization and representatives from the originating banks (the major mortgage lenders), the investment houses, including the Hong Kong Capital Market Association, the insurance companies and law firms. We have had three meetings so far, and have had discussions with representatives from the rating agencies as well as the leading mortgage corporation in the US, Fannie Mae. I must say that the technical support has been very enthusiastic from the industry, particularly from the investment banks, for which we are very grateful.

The consensus so far is that the market should be developed entirely on private sector initiatives. To facilitate the development of a sound, efficient and liquid market, three general principles seem to hold: first, the paper should have high credit quality, with clear transparent information on the risks involved available to investors; second, transactions costs in issuance and trading of the paper should be low; and third, the market should be liquid. On the first issue, the involvement of the rating agencies seems to be a logical step, and we are consulting them on their rating methodology and their experience in the rating of asset-backed paper in other markets. We are also currently working on the other issues, and would expect that we can present a report sometime in the second half of the year.

An interesting outcome of the discussions so far, for example, is that there seems to be sufficient investor appetite for high quality fixed rate paper. This presents a fascinating technical challenge because most of the residential mortgages in Hong Kong are variable rate mortgages. A study of the international experience suggests that the US market, which was formerly mainly (74%) fixed rate, has moved recently towards adjustable rate mortgages (ARMs), while the UK market, which was overwhelming variable rate, has begun to move towards fixed rate, partly as a result of the development of the secondary mortgage market. These are options for future development that
Some comments have been made recently that the development of the secondary mortgage market may generate further funds that could exacerbate pressure on the property market. It may be helpful if we could clarify some of these issues. Firstly, as I said earlier, the development of the market will be entirely in the hands of the private sector - whether the market for mortgage-backed paper will emerge or not will depend entirely on the market. There is no intention for the Hong Kong Monetary Authority to subsidize nor stand in the way of the natural development of the market.

Indeed, from a supervisory point of view, I would like to repeat my colleague, David Carse’s views on the subject: “If securitization of mortgage loans - if done properly - improves the liquidity of mortgage loans, spreads the risks, and results in a reduction in the property exposure of the selling bank, it is not surprising that the Monetary Authority is generally supportive of the concept”. Moreover, from a market point of view, I think there is a public interest in the development of a healthy, robust and liquid market. Thus, the technical issues of the market should be properly explored - hence the on-going work of the Informal Working Group. Asset-backed securities being a relatively new product in the region, I am sure the investing public would like to understand better the potential for such paper, as well as the risks involved.

As in the case of the Exchange Fund Bills and Note programme, our experience suggests that the more homework we do early on in the game, the greater the chances of success of the market. Such groundwork includes, inter alia, the clarification of the market rules of the game, the efficiency of the clearing platform (such as the use of CMU Service), and the specifications of the conditions of eligibility for possible re-discounting for LAF purposes, that may add liquidity to the market. As in the past, we will work very closely with the experts from the market, particularly the HK Capital Market Association, to help in such market development.

In conclusion, you will have noted that the three members of this Panel, speaking on the futures, the equity and the debt markets, have clearly emphasized the need for efficiency, integrity and liquidity. The growth of Hong Kong as a premier international financial centre, indeed, its long run competitive position, hinges on the continuous development and innovation in these markets. I would like to congratulate the Chinese University of Hong Kong for organizing this useful forum, and we welcome all your views and ideas in this challenging task of market development.
ENDNOTES

1. I am grateful to Mr Patrick Thomas of Oakreed Financial Services for material on this area.
2. quoted in South China Morning Post, May 23, 1994
3. data from Oakreed, quoted Hong Kong Economic Journal, January 1994
4. CS First Boston statistics, Euromoney, April 1994
5. Coopers & Lybrand Banking and Finance Industry Group, 1994
6. Hong Kong University of Science and Technology, "Feasibility Study of Securitization of Mortgage Loan Portfolio", MBA Thesis, 1994
7. Letter to South China Morning Post, April 11, 1994
YIELD CURVES
(HKD and USD Debt Instruments)

% per annum

US Treasuries

EF Bills & Notes

AAA Issuers

DB Deutsche Bank
ZLB Bank of Austria
WB World Bank
IFC International Finance Corp.
ADB Asian Development Bank

24.5.94
When I was asked by Elizabeth Scott to speak on a topic of interest to you all, I thought a description of the role of Hong Kong Monetary Authority (HKMA) would be very interesting. She replied that most of you already know more than enough about the HKMA, and would like to know about what methods we use in managing the money supply. So I thought a mundane title like "The Tools of Monetary Management" would be a sufficiently exciting topic for an after-lunch speech. I was therefore rather surprised to read in Sunday's South China Morning Post that I would talk on the impact of the peg on the stock market. Now, central bankers have learnt from good experience not to comment on the future direction of financial markets. In this respect, I have two excellent authorities, the first - to slightly rephrase what Mark Twain, the famous American novelist said about capital markets some 80 years ago: "April, this is one of the peculiarly dangerous months to speculate in stocks. The others are July, January, September, November, May, March, October, June, December, August and February". The great economist Keynes, whose General Theory of Employment, Investment and Money is still good bedtime reading, used a rather sexist comparison by today's standards. "Professional investment", he said, "is not a case of choosing those which, to the best of one's judgement, are really the prettiest, nor even those which average opinion genuinely thinks the prettiest" (of competitors). We have to "guess better than the crowd how the crowd will behave". Following Keynes and Mark Twain, I have therefore no opinion to offer on how the peg would affect the stock market.

Instead, I could perhaps explain how the HKMA works in the area of monetary management. To do so, I would have to go back to the basic functions of the HKMA and the link, which is worthwhile repeating.

In brief, the functions and objectives of the HKMA are as follows:

* to maintain currency stability, within the framework of the linked exchange rate system, through sound management of the Exchange Fund, monetary policy operations and other means deemed necessary;

The speech was given to the Financial Women's Association of Hong Kong on 27 April 1994
to ensure the safety and stability of the banking system through the regulation of banking business and the business of taking deposits, and the supervision of authorised institutions; and

* to promote the efficiency, integrity and development of the financial system, particularly payment and settlement arrangements.

These functions and objectives are generally consistent with those of central banks around the world. However, the HKMA still operates fundamentally the currency board system in Hong Kong. Thus, unlike other monetary authorities or central banks, the HKMA does not have price stability, full employment or balanced trade as monetary policy objectives. These are of course laudable objectives, but in the context of Hong Kong, the Linked Exchange Rate System, with the Hong Kong dollar linked to the US dollar at 7.80 to the dollar, has proved to be the successful anchor of Hong Kong’s financial stability since it was introduced in October 1983. The overriding objective of our macro monetary policy is exchange rate stability, which is crucial to the maintenance of stability and prosperity in Hong Kong.

Given this clear, simple and transparent objective, we have evolved over a period of time a whole series of tools of monetary management, what our Chief Executive, Mr. Joseph Yam has called our monetary armoury, to strengthen the monetary system.

The first of these measures, introduced in 1987, was steps to ensure the flexibility of interest rates in both directions. The well known Rules on Interest Rates and Deposit Charges, made by Hong Kong Association of Banks (HKAB) under Section 12(1) of the HKAB Ordinance, after consultation with the Financial Secretary, set the level of retail interest rates that may affect the wholesale or inter-bank interest rate levels. Banking transactions are exempted from the maximum interest rate stipulated in the Money Lending Ordinance through an amendment enacted in 1988.

Secondly, certain provisions of the Rules relating to deposit charges, which can help impose negative interest rates, were introduced at the beginning of 1988. These deposit charges or the mere threat of them, would certainly deter any untoward speculation against the exchange rate. The flexibility of interest rates in both upward and downward direction will help to manage exchange rate stability.
Third, the Accounting Arrangements between the Management Bank of the Clearing House of HKAB and the Exchange Fund, which determines the level of liquidity in the inter-bank market, were introduced in 1988. In essence, the easiest way to think about the Accounting Arrangements is that the clearing accounts, which the banks have to maintain with the Management Bank to facilitate their clearing and settlement of transactions with each other, represents the sum total of their inter-bank liquid funds. At the same time, the Management Bank must maintain a corresponding minimum level of liquidity with the Exchange Fund, called the Balance of the Account. When the HKMA reduces the level of the Balance, it tightens liquidity of the banking system. Similarly, when it increases the Balance, it injects liquidity into the system. In other words, the level of the “Balance” represents reserve money, or M0, which the HKMA can manage, with the objective of maintaining exchange rate stability, in the same way as other central banks manage reserve money, in order to influence the level of money supply, such as M1, M2, or M3.

The fourth part of our monetary armoury is the Liquidity Adjustment Facility (LAF) which is Hong Kong's version of the discount window, introduced in 1992. The bid and offer rates for LAF, currently 2% p.a. and 4% p.a. respectively, set the corridor terms under which the HKMA will borrow from or lend to the inter-bank market. The LAF has worked extremely well so far to stabilize inter-bank market stability, particularly during active periods of Initial Public Offers (IPOs) in the past.

The fifth part of our monetary armoury is the issue of Exchange Fund Bills and Notes (EFB and EFN). The Bills Programme was first introduced in early 1990 and currently there is roughly $34 billion of such Bills outstanding of up to 1 year maturity. Similarly, roughly $6 billion of 2-3 years Notes have been issued.

The existence of such papers allows the HKMA to conduct Open Market Operations (OMO), that is, the buying and selling of high quality paper that will affect the inter-bank liquidity. In very simple terms, the sale of such paper to the banks will reduce their liquidity, since the purchase of paper by the banks would tend to reduce the Balance, while the purchase of papers by the HKMA, which would increase the Balance, would increase the banks' overall liquidity and lower overnight HIBOR.

The development of the EFB/EFN Programme was also strengthened through the HKMA's paperless clearing system which has now evolved to serve other HKD debt paper, called our CMU or Central Money Markets Unit Service. As you know, with effect from March 5, 1994, the HKMA will be
prepared to repo (Sale and Repurchase) certain HKD marketable debt instruments of acceptable credit quality and cleared through the CMU. These papers comprise all EFB/EFN and Government Bonds (Category A), HKD debt paper issued by Mass Transit Railway Corporation (MTRC) or Provisional Airport Authority (PAA), or have AAA rating (Category B); or other HKD debt paper with a rating of A- if issued by a bank, or A or above if issued by a non-bank (Category C). The repo rate for Categories (A) & (B) are at LAF offer rate, while Category (C) paper repos will be at LAF offer rate plus 25 basis points.

The general approach to monetary policy implementation can be characterized as follows:

**INSTRUMENTS** \(\Rightarrow\) **PROXIMATE TARGET** \(\Rightarrow\) **INTERMEDIATE TARGET** \(\Rightarrow\) **ULTIMATE TARGET**

In Hong Kong’s context, we can characterize our monetary management as follows:

**INSTRUMENTS** \(\Rightarrow\) **THE BALANCE (RESERVE MONEY)** \(\Rightarrow\) **INTER-BANK INTEREST RATES** \(\Rightarrow\) **EXCHANGE RATE STABILITY.**

In other words, we use a range of instruments, described earlier, to influence our proximate target (the Balance), which affects our intermediate target (inter-bank interest rates) that affects our ultimate target, the exchange rate.

How is this implemented in practice? Let me re-cap the theory of exchange rate management. In essence, in an environment of totally free capital movement, the exchange rate will be influenced significantly by the level of interest rates, particularly short-term rates. When the exchange rate is on the strong side of the link, Hong Kong dollar interest rates, if below US dollar rates, would encourage outflows and thus weaken the exchange rate. Similarly, when the HKD is on the weaker side of the link, higher HKD interest rates than USD rates would encourage inflows that would strengthen the HKD.

As you know, the HKMA is committed its operations openness and transparency. As Joseph Yarn, our Chief Executive, has stated in his landmark speech “Central Banking and Monetary Policy in Hong Kong” of December
1992, “all our money market operations are conducted openly and announced
instantaneously on our screens for all to see”. For those of you who have
access to Reuters screens, you can watch our operations on “HKEF”. I think
it might be useful if I take you through the interpretation of movements in our
operations as shown on our screen on a typical day.

As I said earlier, the Balance of the Account the Management Bank
maintains with the HKMA represents the level of interbank liquidity. Prior
to 1994, the level was maintained in round numbers of around $1,000 million.
At the beginning of 1993, for example, the level was $1,500 million. This
was increased by $650 million at the time of the Denway IPO in February
1993, increased further to $2,800 million in May for the Shangrila Asia IPO
and then reduced to $2,000 million in July when there were substantial ease
in inter-bank liquidity. In the third quarter of 1993, the Balance was increased
twice by $1,000 million each time, in October and December when there
were substantial inflow of funds because of heavy IPO activities. The
Balance peaked at $4 billion towards the end of 1993.

Since then, the level of the Balance has fluctuated around $2-$3 billion,
depending on domestic market conditions. We have recently separated the
screen into several time periods, so that it becomes quite clear what our
monetary action means at different times of the day. For example, on April
15, the opening balance was $2,541 million. At 0930 hours, when we noticed
that inter-bank rates were high, that is, fairly close to the LAF offer rate of
4%, we injected liquidity of $146 million through direct lending in the
market. We continued to add another $50 million by 10 o’clock, and when
rates continued to rise to nearly 4%, we raised the net injection to $859
million late in the afternoon. By 4 o’clock however, we withdrew $110
million as rates began to ease. Towards the end of the day, we were net $749
million plus in the market. However, you will notice that the banks decided
to park their excess funds of $405 million with us through LAF by 1630
hours. Thus, overall we were net $344 million long for the day, thus
increasing the Balance to $2,885 million. For the day as a whole, we
achieved both interest rate stability as well as exchange rate stability.

I hope this esoteric, but not boring explanation of our tools of monetary
management will help you professional money managers to understand our
role in the system and will make the market a more transparent and efficient
system.

Finally, to end, I make no apologies for not enlightening you on the ups
and downs of the stock market - first because it is not our business, and
secondly, I believe you all agree that financial markets are all “a game of
sentiment”. What we conduct is Open Market Operations and not Open
Mouth Policy. Central bankers have to be tight-lipped - we should not attempt to try to talk markets one way or the other. On the other hand, we must be free to explain our techniques and methods clearly, to the market participants, so our actions are not misunderstood.

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HONG KONG MONETARY AUTHORITY

MONEY MARKET OPERATIONS

TEL 8788104 DEALING : EFHK 15APR 1994 CUMULATIVE

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LAF TODAY

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Monetary Developments in China and Implications for Hong Kong

Joseph Yam

INTRODUCTION

I must say I feel a little nervous talking about China. There is so much going on and so little we know about it. Yet the implications for Hong Kong are so significant.

China is going through a period of reform and liberalization. It is moving from a controlled economy to market economy. The process is itself an inflationary one, involving the movement of prices from the controlled levels to the free market levels. The process also involves conflicts. On the one hand, there is a strong and clear desire to open up market and allow market forces to determine the direction of economy development. On the other hand, there is still some tendency for those with authority to retain discretionary control over markets. It is characteristically difficult to ask those in power to give up authority. It is difficult for bureaucrats to work themselves out of a job. It is difficult for civil servants to tell market participants to just get on with it.

These conflicts unfortunately have a tendency to breed corruption and discontent through benefiting one group of people or one sector of the economy or one geographical area much more than others. The process of reform and liberalization needs to be manage carefully. The downside risks of mishandling the situation are great. There are painful example of failures, big and small. We have seen the events in 1989. We have noticed what happened in the Shenzhen stock market in 1991. And there were the problems concerning the IOUs to the farmers in 1993. These events disrupt the process of reform and liberalization. They require the re-imposition of administrative controls. They involve taking a step backward before any further forward movement.

But China is overall managing well, in the light of the very complex circumstances. The impressive progress made clearly have been a lot more significant than odd steps backward. In terms of the continuing development of China as market economy, China has certainly been making the right moves more often than the wrong ones. The direction is clear.

*The speech was given to the French Business Association on 27 January 1994*

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objectives are clear. But laying down objectives is relatively easy. The
difficulty is always in achieving them. The difficulty is in managing the
change and minimizing the disruptions that might arise from it. Deng Xiaoping
had vision when he said that the process of reform and liberalization might
involve "crossing the river by feeling the stones". But if the water is too deep
you risk getting drown. And even if you can swim you still have to get wet.
It would obviously be nice to have a bridge properly built.

And China is busy building that bridge. You just have to examine the fifty
decisions taken at the Third Plenum of the 14th Central Committee of the
Chinese Communist Party in November 1993 to appreciate this. Many of the
decisions concern the building of the infrastructure necessary for a market
economy to function properly. Chapter 4, containing decisions 16 to 22,
deals with economic matters, including fiscal and monetary reform measures.
There are nine monetary issues that I can identify, aiming at building the
system, the institutions and the instruments that will make the reform work.

MONETARY REFORM IN CHINA

FIRST, a realistic macro monetary policy objective for the central bank,
the People's Bank of China (PBoC), has been defined, and this is currency
stability. Compared with the situation in the past, this is a great improvement.
Currency stability is now the prime role of the PBoC, not the promotion of
economic growth, nor the provision of adequate funds to state enterprises. It
would have been even better if the term "currency stability" could be more
clearly defined, for example, in terms of the internal or the external value of
the currency, in other words, in terms of a target inflation rate or exchange
rate. It is however, prudent to take one step at a time, although it must be
emphasized that clarity enhances credibility, and the probability of success of
that policy.

SECOND, a much greater degree of independence is to be given to the
PBoC concerning the operation of monetary policy. This again is a move in
the right direction. Independence of the central bank safeguards the operation
of monetary policy against political interference and enhances credibility of
the policy itself. There is, nevertheless, a reference to the PBoC operating
under the guidance of the State Council. I hope the underlying message there
is that the authority for defining or interpreting the exact meaning of currency
stability rests with the State Council; but that, having defined the precise
objective clearly, and hopefully also publicly, the PBoC will have full
independence in achieving the objective.

The THIRD monetary reform measure concerns ensuring that monetary
policy, being a national policy, is to be implemented effectively and in a co-ordinated manner geographically. This will involve requiring the branches of the PBoC in the provinces to report directly to the head office in Beijing. They will no longer operate under the influence or direction of the provincial governments.

The FOURTH monetary reform measure concerns the actual conduct of monetary policy. The PBoC is to switch from administrative credit controls to the use of market oriented instruments. This would involve the PBoC exercising control over the money supply, through open market operations, reserve requirements and variations in the central bank base rate. The PBoC has been developing the necessary market mechanism for exercising monetary control and is making good progress. Once this is in place, I think we would see further liberalization in the determination of deposit and lending interest rate, and the participation of foreign financial institution in Renminbi business.

A market oriented approach to monetary policy ensures that, in the pursuit of currency stability, money continues to be allocated to the most efficient users, that is to say, those businesses able to pay the market interest rates and still make a profit. For this benefit to flow through the economy, one pre-requisite is, however, that there should be efficient money markets where those with surplus money could lend to those in need, safely and quickly. Hence the FIFTH monetary reform measure concerns improvements to the infrastructure of the money market. Here the decisions are less comprehensive, perhaps because of the technical nature of this matter. But there are clear reference to upgrading the efficiency of the payment and settlement system, which is highly essential for the proper functioning of the money market.

Another pre-requisite is, of course, that the banks are capable of identifying the profitable businesses to which money should be directed and managing their business prudently. So the SIXTH reform measure requires that the specialized banks be converted into commercial banks and be operated on a commercial basis, in other words, be subject to the discipline of profit and loss, and the necessary prudential supervision by the PBoC. This is something that I think will take a little time to work out. For a bureaucrat, who is used to handing out money in accordance with government policy, to start looking at balance sheets and profit and loss accounts of companies, making objective valuations on assets, assessing the risk of lending, taking decisions to lend and be responsible for the decision, simply takes time and experience. It also takes time for a system of prudential supervision to be built up.

At the same time, there is clearly a need to take policy lending off the balance sheets of commercial banks. And this is the SEVENTH reform measure. If it is government policy that there should be assistance to funding
given to particular industries or particular enterprises, so be it. But the money, and the subsidy that it carries, should obviously come from the government's coffers directly from the public finances or indirectly from policy lending banks, and not from commercial banks.

And at the macro levels there is the EIGHTH reform measure which I think would amount to the prohibition of the monetization of budget deficits, which has been one of the root causes of inflation in China. The decision taken at the Third Party Plenum is that budget deficits of the central government are not to be financed by bank overdrafts. I think this includes overdraft facilities by the central bank. Budget deficits are instead to be financed through the issue of government bonds.

The NINTH monetary reform measure concerns the exchange rate. The unification of the various exchange rates and the creation of an interbank foreign exchange market, which will I think eventually replace the swap centres, are both essential steps to take. This is not just the removal of one hurdle for China to rejoin the GATT. Coupled with prudent macro economic management, this will remove a lot of uncertainty concerning the external value of the Renminbi, and facilitate external trade and investment. I hope this will be followed by further liberalization of exchange control measures and lead to the long term benefit of having no exchange controls, free flow of capital and a freely convertible currency.

This is a formidable list of monetary reform measures. Some would say that this is more of a wish list, sort of, easier said than done. But they must have been stunned by the swift action taken by China to implement these measures. We had the announcement at the turn of the year to unify the exchange rate. Now the official exchange rate has been abolished and the exchange rate at the swap centres have converged to a stable level of around RMB8.70 to the US dollar, at least so far this has been the case. There were talks about the establishment of the interbank foreign exchange market, scheduled to start operation on 1 April 1994. The heads of the specialized banks have reportedly been meeting in Beijing to consider how to commercialize their banks and how policy lending should be separated from books. I understand also that the two pieces of draft legislation on central banking and commercial banking will soon be presented for enactment at the next People's Congress. There is also the announcement of the intention for the issue of US$ 1 billion of bonds to finance infrastructural projects. So it is not a wish list. Action is being taken.

**Implications for Hong Kong**

What then are the implications of all this for Hong Kong? We all, of
course, wish to see a stable and prosperous China. With the Hong Kong economy being increasingly integrated with that of China, our stability and prosperity reform measure will considerably strengthen China's monetary system and in time enable inflation to be brought under control. This is a necessary condition for the rapid economic development in China to be sustained in the longer term. The path will I think become less bumpy. With less volatility in the economy of China there will be less shocks and disruptive crises for Hong Kong.

And with the role now Hong Kong is playing, as an international financial centre at the door steps of China, a stable and prosperous China will undoubtedly mean more business for Hong Kong. As the banks in China become commercialized, they will also start to look to the international market. Naturally they would want a presence in Hong Kong and make use of the very much internationalized financial market of Hong Kong. So would banks from other parts of the world wanting to do business with China. And as the banking system in China opens up, banks in Hong Kong too will have attractive opportunities for expanding their activities into China.

I see also interesting prospects for the debt market in Hong Kong. Our debt market would be broadened if Hong Kong is used as one of the international centres for the marketing of bonds issued by China. I look forward to the forthcoming US$ 1 billion bond issue. I think there is considerable investor demand in this region for fixed income securities. And with the infrastructure of our debt market being strengthened by the introduction of the central custody and clearing system, our market can play an active role in debt issues of this nature.

But of more immediate interest to us are perhaps the implications of the monetary reform measures in China for monetary management in Hong Kong. As part of the announcement on the unification of the Renminbi exchange rate at the turn of the year, the PBoC reiterated the prohibition of circulation of foreign currencies in China. But at the same time, there were unconfirmed reports that the Hong Kong dollar will continue to be allowed to circulate in Shenzhen and Zhuhai, or may be even become the main currency of these very much internationalized Special Economic Zone in the southern part of China.

I am afraid we are still trying to establish the fact. Obviously, the Hong Kong dollar has been playing an increasingly important role in the southern part of China, not just as a medium of exchange, but also facilitating inward investment. It would indeed be an interesting idea for the Hong Kong dollar to play the role as the main currency there. One effect is that the Special Economic Zone would then be exposed to, and influenced by, the type of
monetary discipline we impose upon ourselves through a fixed exchange rate. Some would argue that this is no bad thing. Equally there are doubts as to whether this would be appropriate to the circumstances of the Special Economic Zones. From my conversations on the matter with the PBoC, I think this idea may be a little far fetched; although if this were to happen, there would be more interest free money for the Exchange Fund, banking the additional amount of bank notes required for circulation there.

Alternatively, if the prohibition is to be strictly enforced, then those Hong Kong dollar bank notes circulating north of the border, currently estimated at around HK$ 15 billion, may come back to Hong Kong. This is about a quarter of our bank notes in circulation and they need to be redeemed if they are returned. This is really no problem for the Exchange Fund as the foreign currency reserves held by the Fund are nearly five times the total amount of bank notes issued. But obviously it would not be in our interest for the Hong Kong dollar bank notes circulating north of the border to build up over time to a disproportionately large amount only to see them coming back suddenly because a particular policy, after a long period of benign neglect, is now being strictly enforced. We will continue to discuss the matter with the PBoC.

Bank notes are, of course, only one aspect of money. There is an even more substantial amount of Hong Kong dollar placed on deposit by Chinese entities with banks in China. And as banks in China do not have any use for those Hong Kong dollars, they are in turn placed back into Hong Kong in the form of interbank deposits. I have talked about this on a number of occasions before, drawing attention to the fact that this has been increasing rapidly, and pointing out, amongst other things, that it would be in the interest of monetary stability in Hong Kong if this pool of money, or its growth trend, is to remain stable.

In the policy just announced, all foreign currency receipts, with the exception of those accruing to certain exempt categories including individuals and enterprises involving foreign interests, are required to be sold for Renminbi at designated banks. But it is not clear as to how the designated banks would dispose of the Hong Kong dollar acquired in this way. If they are to be truly commercial banks, then they would on-sell them and square the open position in Hong Kong dollars. Any long position will eventually end up as foreign currency reserves of China, presumably held from now on by the PBoC. In other words, the ownership of some of the Hong Kong dollars placed in Hong Kong from China will change hands, basically from the non-exempt Chinese entities to the PBoC. This will I think help in our assessment of the behaviour of that sum of money, as we do maintain close contacts with the PBoC on these matters.
The policy may, however, result in some outflow from the Hong Kong dollar, but I think this may not be significant. In any case, given that the Hong Kong dollar has been on the stronger side of the link, this may not be a bad thing. In the longer term, as the economic relationship between Hong Kong and China further intensifies, and as the Renminbi becomes more convertible, these flows of money in and out of the Hong Kong dollar will become more substantial, with implications for monetary management, for Hong Kong as well as for China. You will, I am sure, be surprised to know that, although Hong Kong in terms of population is less than one percent the size of China, our money supply in terms of Hong Kong dollar M3 is now equivalent to 35 percent of the money supply of China. If we talk about the total money supply, that is to say including the foreign currency component, our money supply is equivalent to 70 percent of that in China.

I very much welcome the monetary reform measures being implemented by China. They will overall benefit Hong Kong in the long run. And Hong Kong clearly has a useful role to play, transferring the skills and technology necessary to assist and speed up the reform process. There is therefore a need for the continuation of the close co-operation between the financial communities of Hong Kong and China, and particularly between the Hong Kong Monetary Authority and the PBoC, so that both could gain a better appreciation of the intricacies of the relationship between the two monetary systems. It is important that China takes full account of the possible impact on, and the potential of, Hong Kong in its monetary development. It is equally important that we understand this development, so that we know how to cope and contributes our technical expertise in the best interest of Hong Kong.
Hong Kong’s Payment System

Joseph Yam

INTRODUCTION

Section VII of Annex I of the Joint Declaration contains provisions concerning the monetary system of Hong Kong. The first sentence of that section specifies that "The Hong Kong Special Administrative Region shall retain the status as an international financial centre." In this connection there have been comments made that whether Hong Kong is an international financial centre is not a matter for declaration by sovereign states, but is a matter for recognition by financial executives like yourselves. And so in the Basic Law we get a different wording. Article 109 of the Basic Law specifies that "The Government of the Hong Kong Special Administrative Region shall provide an appropriate economic and legal environment for the maintenance of the status of Hong Kong as an international financial centre."

But whatever wording is used, the spirit of the provisions is clear. And they impose a specific responsibility on the authorities to develop Hong Kong as an international financial centre. The question is how do we achieve this very desirable objective. What, if anything, do we need to do? And this really is a question that we should continuously ask ourselves, regardless of 1997, for the international financial scene changes quickly and competition from other financial centres is keen. But it is not an easy question to answer. There is always the prudent and conservative tendency to maintain the status quo, minimizing changes, and therefore the risks arising therefrom, particularly when changes coming so near to 1997 could well be misinterpreted, perhaps even as part of a conspiracy. Nevertheless, there is also a pragmatic recognition that, in certain circumstances, standing still is not an acceptable option.

We have indeed been asking ourselves this question continuously. And over the past few years, we have often come up with answers, and actions. These cover reform measures in the area of monetary management to ensure currency stability, and improvements in the supervisory area to ensure financial stability and uphold the integrity of the banking system. Today I would like to deal with a third area which we have identified as crucial to Hong Kong’s continued development as an international financial centre and what we intend to do about it. This concerns Hong Kong’s payment system.

The speech was given to the Financial Executives Institute of Hong Kong on 13 July 1994
Let me start by stating clearly that we do have a payment system that has served Hong Kong well. The present payments and settlements arrangements were established in 1981 and are run very efficiently by the Clearing House of the Hong Kong Association of Banks (HKAB). The system clears and settles very productively over 600,000 items daily, with a total value of between HK$130 billion to HK$220 billion. Payments settled through CHATS (Clearing House Automated Transfer System) amounted to US$3.5 trillion in 1993, or 32 times our GDP. Compared with the (1992) situation in other centres, this was roughly in line with CHAPS in UK (35 times), Fedwire in the US (33 times), EAF in Germany (30 times), but is less impressive than BOJ-NET in Japan (77 times) and SIC in Switzerland (99 times).

But still I think it is time that we moved on. Let me explain why. The general thrust of our argument can be very clearly put by quoting, rather generously, Eddie George, the Governor of the Bank of England. In a speech he delivered in May this year in London, he said that:

"For years .... (the subject of payments and settlements arrangements) ... was a dark corner of the financial services industry - a "Back office" function that only rarely attracted any attention among senior management of financial services businesses, let alone the wider community. But all that has changed over the last decade or so. As the volume of financial transactions of all kinds has multiplied there has been a growing awareness of the increasing risks in payments and settlements arrangements that did not develop at the same pace - risks to individual firms which found it difficult to control their exposures; and risks to the financial system as a whole, which could suffer major disruption if an individual failure was transmitted through the payments and settlements system to other forms in a domino-like chain reaction.

This growing appreciation of risk applies to the system of inter-bank payments - where until comparatively recently the participating banks could not even measure their day-time exposures far less control them. And it necessarily then also applies to settlements arrangements where there is an exchange of value - whether in relation to trading in foreign exchange, or money market instruments or capital market securities of all kinds: if the ... payment (in the domestic currency) is itself uncertain, then market participants must be exposed to the possibility of capital loss through parting with their asset before they are certain of receiving the proceeds.

In the meantime the development of information technology has meant that it has become possible to reduce and even eliminate these risks; and the
globalization of financial markets has meant that where modern technology is not being applied to improving, cost-effectively, the security of payments and settlements arrangements, then trading is likely to move to other centres where the infrastructure is more reliable."

These are very wise words. And the message is clear: identify, minimize and as far as possible eliminate the risks in our payment system. This would enable the damaging contagion effect of an individual failure, should it occur, to be contained. It is also essential if Hong Kong is not to lose out to competitors as an international financial centre.

**Payment system risks**

There have been a number of authoritative studies made since 1989 on payment risks and how they should be tackled. The Bank for International Settlements (BIS), in particular, runs a G-10 central bank governor's Committee on Payment and Settlement Systems in which a number of very helpful reports have been published. There are also the private sector Group of Thirty Report on clearance and settlement systems in the world's securities markets, published in 1989, and the BIS Lamfalussy Report on netting schemes published in November 1990.

As you know, all modern day transactions involve at least two counterparties, the payer and payee, a payment medium, such as cash or cheque, and an exchange of goods or service under a legal contract. Associated with these elements of a transaction there are six key types of payment risks:

(a) **Counter-party or credit risk** - if one counterparty, including the settlement intermediary or institution, fails to settle for full value, leading to a loss of principal;

(b) **Liquidity or timing risk** - the risk that a counterparty will not settle an obligation for full value when due, thus requiring the payee (receiver) to fund himself temporarily;

(c) **Market risk** - arising from changes in securities prices, interest rates or exchange rates, during the payment gap or time between initiation of payment and final settlement;

(d) **Legal risk** - the danger that the legal bases for clearing and settlement are not well founded, leading to protracted legal disputes that cause losses due to credit, market and liquidity risks;
(e) **Operational risk** - the failure of operating systems that are not technically reliable to ensure timely and accurate processing; and

(f) **Systemic risk** - the risk that failure of one participant in a payment system will cause other participants to fail, thus threatening the stability of financial markets.

I am sure as financial executives you are familiar with all this. And I do hope that you at least share some of my discomfort about them. If not, may I alert your interest in, for example, what is called Herstatt risk. This arises in foreign exchange transactions when one counterparty delivers currency in one time zone and receives value in the other currency in another time zone. Clearly the possibility of failure of the counterparty who is to deliver later is a matter of concern. The East Asian time zone is particularly vulnerable to Herstatt risk, since we deliver local currency value today, but may not receive US dollar value until 12 hours later New York time. This time lag in the exchange of value can cause massive losses in a world of high value, high volume, split second transactions and volatile markets.

Another nightmarish example is where a payment system requires the unwinding of transactions involving the failed institution. Imagine that the failed institution was a large international bank and thousands of transactions ending up being ensnared in courts because of the legal doubts on the enforceability of contracts, thus triggering off a gridlock both in domestic and international payments. And imagine further that this occurred on the closing day of an IPO that was over-subscribed hundreds of times, involving a total amount in multiples of the money supply. You would feel more comfortable, wouldn't you, if finality of settlement is achieved irrevocably and instantaneously, in other words, on a real time basis, as and when you make a transaction.

**INTERNATIONAL STANDARDS**

With leading central banks and the international banking community focusing their attention on payment system risks in the last few years, international standards for payment systems have now emerged. After years of study, the central banks of the G-10 countries have come to the conclusion that the technical solution to the control of payment system risks is **Real Time Gross Settlement (RTGS)**, or the continuous settlement of payments on an individual order basis without netting debits with credits, across the books of the central bank. (For a discussion on the central bank's role in payment systems, see **Annex A** which is an extract from a Bank of England...
Moreover, the EC central banks have gone one step further by harmonizing 10 minimum standards for payment systems in EU countries. These 10 principles, which are reproduced in Annex B, have become de facto minimum standards by which international or non-EU payment systems are judged. The 10 principles cover issues such as access, transparency and pricing of payment systems, RTGS and how it should be run, the position of netting schemes, and other legal and operating issues.

**Hong Kong’s payment system**

In this connection, you may wish to note that Hong Kong’s payment system is still predominantly a paper based system, despite advances in computerization and telecommunications. Cheques still account for more than three-quarters of traffic volume and 40% by value, compared with 54% and 10% respectively for the United Kingdom, and 9% and 2.4% respectively for Germany. Of the major financial centres, only Hong Kong, along with Canada, has next day finality of settlement, instead of same-day settlement, which has been the international norm; and even that is increasingly considered to be inadequate. (See Annex C for a comparison of Hong Kong’s payment system with those of other centres.)

Whilst the existing system meets adequately Hong Kong’s present needs, by reference to the emerging international standards I am afraid there is quite a bit of catching up to do. I believe I have the support of all concerned in taking the view that Hong Kong should have the necessary financial infrastructure to remain as the pre-eminent financial centre in East Asia and one of the leading international financial centres. This means in effect that Hong Kong should at a minimum satisfy all the international standards, so that everyone will know that they will be trading and operating in an efficient and robust environment.

**The way forward**

As some of you already know, the Hong Kong Monetary Authority (HKMA) and the banking community has been studying many of these issues in considerable depth, and have also consulted some of the G-10 central banks, including the Bank of England, which is itself implementing RTGS by 1996. In January this year, we issued a consultative paper on our payment system which recommended moving to RTGS as soon as possible and the adoption of certain measures at least to achieve same day settlement in the interim. These were favourably received by the financial community, in
particular HKAB. As a result HKAB will shortly be carrying out the necessary feasibility study on RTGS. In order to provide, among other things, the policy input for this feasibility study, I have recently set up a Committee on Payment System. The Committee consists of myself as chairman and leading members of the banking community and staff of the HKMA as members (Annex D). The terms of reference of the Committee are to advise the HKMA on, among other things, the following:

(a) the **strategic issues** relating to the implementation of RTGS in Hong Kong;

(b) matters relating to **possible linkages** of Hong Kong's payment and settlement system with other securities clearing and payment systems in Hong Kong and overseas;

(c) the policy input for the technical **feasibility study on RTGS** to be undertaken by the Management Bank of the Clearing House of the HKAB, at the request of the Committee of HKAB, and to monitor the progress of the study; and

(d) the policy input for HKAB in the implementation of the **interim measures** to strengthen the payment and settlement system recommended earlier by the HKMA and accepted by HKAB, and to monitor the progress of implementation.

The Committee had a useful first meeting two weeks ago, in which certain policy parameters useful to the feasibility study were discussed and agreed. It was unanimously agreed in the Committee that it would be in the interest of Hong Kong to meet those international standards devised by the EC central banks, which I referred to earlier, in full, and quickly.

Specifically, the Committee agreed that the feasibility study should allow for the RTGS system to cater particularly for large value interbank payments which have systemic implications. The final settlement of these large value payments should be across the books of HKMA to reduce settlement risk because only HKMA is in a position to provide default free money for final, namely, irrevocable and unconditional settlement of Hong Kong dollar payments. As the RTGS system has to be designed in such a way as to anticipate and allow for the domestic and international linkages, intraday finality of settlement across the books of the HKMA would be a key factor in achieving delivery versus payment (DvP) in the domestic securities markets and payment versus payment (PvP) in cross border multi-currency transactions. The feasibility study is also expected to throw light on various other issues
including the appropriate number of Settlement Banks, the mechanism for the provision of intraday liquidity and the form of collateral arrangement.

Some members of the Committee on Payment System expressed a desire for the management structure of the Clearing House of the HKAB to be looked at. This will, therefore, also be a matter to be considered in the RTGS feasibility study. In this connection, however, I would like to reiterate that the HKMA has no wish to take up the responsibility of running the Clearing House, which under the able hands of the Management Bank, has provided efficient clearing services without disruption despite significant increases in volume in recent years. Unless HKAB thinks otherwise, we have no intention to propose changes to the existing Clearing House arrangements. The matter will, therefore, be left to the initiative of HKAB.

THE OTHER 1997

You may well ask - what is the urgency about all this? Why is the HKMA pushing so hard for this? Let me alert you to the fact that earlier this year two decisions which may have profound impact on Hong Kong’s competitiveness as an international financial centre were taken outside Hong Kong. They went almost un-noticed here. The first is a decision by the Fed to extend the opening hours of the US Fedwire from 12 hours currently to 18 hours, sometime in early 1997. What this effectively means is that US dollar settlement across the books of the New York Fed will be possible between 12.30 pm and 6.30 am Hong Kong time. At one stroke, one could achieve instantaneous PvP and DvP. In other words, when you pay in Hong Kong dollars, you will receive simultaneously US dollars with finality, and vice versa; that is, provided that our payment system by then is on RTGS. With this action, the dangers of Herstatt risk, the fear of a counterparty failure in New York time whilst we sleep, are removed. The world would truly be wired up into a safer global payments network.

The second is a decision by the People’s Bank of China to call tenders for the construction of the Chinese National Automated Payment System (CNAPS). This fully automated system, designed with the help of experts from the central banks of England, US, Germany, Japan and Switzerland, will link RMB markets across China, with RTGS by late 1996 or early 1997.

The implications of these two decisions on Hong Kong should be clear. If by 1997 our payment system is still not on RTGS and does not meet minimum international standards, where will this leave us? How then do we continue to take advantage of opportunities for financial businesses as financial markets become globalized, and how do we take advantage of new opportunities in China? Hong Kong faces intense competition from not only
the leading centres of London, New York and Tokyo in terms of the global financial business, but also competition from other centres in this region, from Singapore to Seoul, and from Sydney to Shanghai. The payment systems of many of these centres are already on RTGS or are moving quickly towards it, perhaps preparing themselves to the possibility of this global link up of payment systems in 1997. If we do not, how then can we continue to develop and be recognized as an international financial centre and satisfy a requirement laid down in the Joint Declaration and the Basic Law? Put simply, either you're plugged in to the network, or you're left out alone. And frankly this aspect of 1997 looms larger in our minds than the reversion of sovereignty. We cannot afford to be complacent. We do not have much time either.

**A VISION: ASIACLEAR AND GLOBALWIRE**

Global financial payment and settlement, and clearing networks are fast becoming a reality, irrespective whether we act or not. In respect of the clearing of securities, bills and bonds and other financial instruments, the diversity of the markets involved is such that one centralized global clearing centre is an idea, but not a reality. So the global clearing network will probably be a multi-access model with multi-lateral linkages of different local or regional clearing centres. Thus, the linkages that our CMU service (a clearing system for debt securities run by the HKMA) are developing with Euroclear and Cedel are part of that multi-lateral network. For that linkage to be efficient and robust, we must meet the Euroclear and Cedel standards and develop both the technical and inter-face protocols. And if we are able further to develop our CMU service to serve or link up with other centres in the region, as we intend to, then Asiaclear, an idea originating in the Asian Development Bank, will hopefully become more of a reality in the not too distant future.

However, the clearing of financial instruments is only one side of the coin. Domestic and cross-border transactions in these instruments, in the money and foreign exchange markets, and indeed in other assets must be settled in the domestic currency or in foreign exchange. Hence, as Hong Kong develops its linkages with Fedwire, CNAPS and payment systems in other centres, it is one step towards the eventual wiring up of the international payment system, which for convenience's sake, I shall call Globalwire. Hong Kong can be a vital hub in this global financial network, just as it already is an important hub in the aircraft and container world. With our superb banking technology, services and connections around the world, in the region and in China, Hong Kong is the natural link in that Globalwire network. It will be a real-time network plugged directly to the international financial centres in our time zone, as well as other time zones, such as New
York and London. (Many of the technical elements of this already exist, such as SWIFT, which is the telecommunications and messaging platform for international banking transactions.)

This vision is probably still quite a few years away. In its small way, the HKMA will devote much effort to work with the banking community in making RTGS a reality, as an important step in securing for Hong Kong a key role as a regional and global hub in financial transactions. We believe very strongly that the banks in Hong Kong, particularly the Management Bank of the Clearing House of HKAB, will take the technical lead in placing Hong Kong into the forefront of clearing and settlement technology. There are many areas of co-operation and consultation which will be taken forward by the Committee on Payment System.

In looking at the future of Hong Kong as an international financial centre, we have to take a long term view. Just as we cannot tolerate more congestion at Kai Tak, and devoted considerable resources at Chek Lap Kok, so must we pay attention to the basic financial infrastructure that would place Hong Kong on at least par to compete with the best in the world.

I do apologize for choosing this rather technical subject for my speech. But thank you for listening to me.
The Central Bank's Role in Payment Systems

There are wide variations in the nature and extent of individual central banks' involvement in their countries' payment systems; historical circumstances have undoubtedly played an important part in this. However, it is almost always possible to classify the central bank's role in terms of four separate functions:

* provider,
* member and
* user of payment or payment-related services; and
* "guardian of the public interest"

Examples which can be found in different countries of the central bank acting as provider include: printing and issuing notes in domestic currency; holding accounts for commercial banks; providing settlement facilities for inter-bank transactions through various payment systems; and providing—either on its own or jointly with commercial banks—the system hardware, software, operating procedures or the communications network for a particular system.

Hong Kong has demonstrated very clearly to the rest of the world the efficacy of leaving the provision of payment services in the hands of the banking community. While final settlement has to be across the books of the HKMA, matters concerning the Clearing House should be left to HKAB.

A central bank may also provide payment services as member of a payment system, making and receiving payments for its customers (including, for instance, its own government or other central banks).

HKMA is a growing member of the payment system, particularly in respect of the investment functions of the Exchange Fund and as fiscal agent, for example in the placement of fiscal reserves to the banking system. It is also beginning to act as agent for other central banks in the settlement and clearing of HK dollar transactions on their behalf.

(extract from a Bank of England paper on Planning Payment Systems: A Central Bank Perspective by Peter Allsopp, Head, Payment Systems Division)
Example of the role of user, where the central bank acts on its own account, include: settling official open market operations through the payment system, to implement monetary policy objectives; settling payments for official transactions in government securities, either short-term in the money markets or longer-term in the government bonds market; and settling the domestic currency leg of official foreign exchange transactions.

Through the existing Accounting Arrangements, HKMA is a major user of the payment system on its own behalf, to implement monetary operations, and to trade and settle transaction in Exchange Fund (EF) paper via the Central Moneymarkets Unit (CMU) functions. Since EF paper is a primary form of collateral for bank liquidity, the clearing and settlement of EF paper is inextricably linked with the payment system.

The role of guardian of the public interest is much broader and may involve any of the following: acting as system regulator, system administration and planning; acting as supervisor of system members (banking supervisor); arbitrating in the event of complaints; and enacting redress procedures. In addition, the central bank may act as a watchdog on wider issues, such as the need to promote economic efficiency and competitiveness, and to facilitate or encourage the development and adoption of technical standards. In these various activities the central bank may have a direct responsibility, or it may act in conjunction with (or as adviser to) another public authority.

HKMA has to fulfill the public interest function of bank supervision and promotion of Hong Kong as an international financial centre. This includes the need to encourage the banking community to manage their risks prudently, to provide lender of last resort facilities, to encourage efficiency and competitiveness, and the adoption of high technical standards. The robustness of the payment system is clearly both an efficiency and competition issue with respect to Hong Kong’s standing and credibility in the international payment system.
Ten Principles for Payment Systems

(PUBLISHED BY EC CENTRAL BANKS IN NOVEMBER 1993)
(EXTACT)

LIST OF PRINCIPLES

PRINCIPLE 1 : DIRECT ACCESS TO INTERBANK FUNDS TRANSFER SYSTEMS

As a rule, only central banks and credit institutions, as defined under the Second Banking Co-ordination Directive, can be admitted as direct participants in funds transfer systems which process third-party payments. As exceptions, certain other bodies authorised to hold accounts for customers may also be, with the approval of the central bank, direct participants in such systems provided that (a) their public nature ensures little risk of failure or (b) they are supervised by a recognised competent authority.

PRINCIPLE 2 : NO DISCRIMINATION IN ACCESS

No discrimination can be made between home-based credit institutions and credit institutions licensed in other EC countries which ask to participate in local interbank funds transfer systems, either through their local branches or directly from another Member State (remote access). The applicants, however, may be required to establish that they can meet the relevant legal provisions of the host country. They also have to comply with the necessary technical requirements of the system; these requirements, however, should not be discriminatory.

PRINCIPLE 3 : TRANSPARENCY OF ACCESS CRITERIA

Access criteria to interbank funds transfer systems should be laid down in a public document. This document should also set out procedures for removing a participant from the system. Additional criteria beyond those embodied in Principles 1 and 2 may apply to direct participants. These criteria may include one or more of the following conditions:

a. adequate financial strength of the institution;
b. minimum number of transactions;
c. the payment of an entry fee;
d. the approval (on technical or creditworthiness grounds) of either the owner/manager of the system or the direct participants;
e. the approval of the local central bank (when possible within the legal context of the country).
PRINCIPLE 5: LARGE-VALUE NET-SETTLEMENT SYSTEMS

Provided they settle at the central bank, large-value net-settlement systems may continue to operate in parallel to real-time gross-settlement systems but, in the near future, they should (a) settle on the same-day as the exchange of the payment instruments; and (b) meet the Lamfalussy standards in full.

PRINCIPLE 6: OTHER INTERBANK FUNDS TRANSFER SYSTEMS

As a part of their oversight function, EC central banks will assess the scale and the nature of the settlement risk in all interbank funds transfer systems operating in their country. While seeking to reduce as far as possible the risks in these systems, EC central banks may adopt, for systems not covered by Principles 4 and 5, a somewhat flexible approach which takes into account the costs and benefits of any envisaged solution. Over time, whenever systems are changed or redesigned, increasingly high standards of risk-reduction should be achieved.

PRINCIPLE 7: LEGAL ISSUES

The legal basis of domestic payment systems should be sound and enforceable. Inconsistencies between domestic legal systems in the EC which increase risks in payment systems need to be analysed and, as far as possible, reduced. As a first step, where necessary, EC central banks will press for changes to certain aspects of national bankruptcy laws (e.g. "zero-hour clause").

PRINCIPLE 8: TECHNICAL ISSUES

Compatible banking standards and efficient channels of communication between EC payment systems are desirable and will assist the processing of cross-border payments in the context of the Single Market. They will become increasingly important in view of EMU. EC central banks will support and participate in the efforts made by banking communities in these fields.

PRINCIPLE 9: PRICING POLICIES OF EC CENTRAL BANKS

The pricing policies of EC central banks, in respect of payment systems functions, will aim at the avoidance of any competitive distortion within the context of the Single Market and in preparation for EMU. As a general objective, such policies will aim at the full recovery by the central banks of the costs of these services.
PRINCIPLE 10 : OPERATING HOURS

The overlap between operating hours of the major EC interbank funds transfer systems (and in particular the hours of RTGS systems) is necessary and could be increased in order to facilitate cross-border payments and delivery-versus-payment mechanisms. In this respect, and as a preparatory step towards EMU, EU central banks will consider closer co-ordination of the operating hours of their settlement services.
### International Comparison of Interbank Large-value Payment and Settlement System

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Committee on Payment System

Membership

Chairman: Joseph Yam, Chief Executive, HKMA

Members: Paul Selway-Swift, Hongkong Bank
Ian Wilson, Standard Chartered Bank
Zhou Zhenxing, Bank of China
David Li, Bank of East Asia
Alex Au, Hang Seng Bank
Antony Leung, Citibank
L.H. Steffen, ABN AMRO Bank N.V.
Takao Wada, Mitsubishi Bank
Andrew Sheng, Deputy Chief Executive (Monetary), HKMA
Norman Chan, Executive Director (Monetary Management), HKMA
Peter Pang, Executive Director (Banking Policy), HKMA
Stefan Gannon, General Counsel, HKMA

Secretariat: Market Systems Division
HKMA

[Other experts may be co-opted as members as and when appropriate.]
Committee on Payment System

TERMS OF REFERENCE

To advise the Hong Kong Monetary Authority (HKMA) on matters concerning the development of Hong Kong's payment and settlement system. Without limiting the generality of the foregoing, to advise on:

(a) the strategic issues relating to the implementation of Real Time Gross Settlement (RTGS) in Hong Kong;

(b) matters relating to possible linkages of Hong Kong's payment and settlement system with other securities clearing and payment and settlement systems in Hong Kong and overseas;

(c) the policy input for the technical feasibility study on RTGS to be undertaken by the Management Bank of the Clearing House of the Hong Kong Association of Banks (HKAB), at the request of the Committee of HKAB, and to monitor the progress of the study; and

(d) the policy input for HKAB in the implementation of the interim measures to strengthen the payment and settlement system recommended earlier by the HKMA and accepted by HKAB, and to monitor the progress of implementation.