Hong Kong Banking into the New Millennium

Hong Kong Banking Sector

Consultancy Study – Detailed Recommendations

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KPMG BARENTS GROUP LLC

Contents

Preface

This document has been compiled from a report produced by KPMG and Barents Group LLC (the "Consultants") entitled "Hong Kong Banking into the New Millennium – Hong Kong Banking Sector Consultancy Study" ("Consultancy Report"). This document contains details of the recommendations on the HKMA's regulatory and supervisory framework made by the Consultants based on a strategic review of the Hong Kong banking sector conducted during 1998. This review included an assessment of banks in Hong Kong and the banking sector as a whole in light of the forces and trends occurring in global financial markets. An outline of the review and the assessment was included in the Executive Summary to the Consultancy Report which was published on 18 December 1998. Readers should refer to the Executive Summary for a description of the general background against which the recommendations have been made.

Overall, the Consultants found that the strategic assessment of the banking sector and the changing financial landscape suggest four mandates that need to be considered in improving the HKMA's regulatory and supervisory framework:

Strategic mandates to improve the HKMA's regulatory and supervisory framework

Strategic mandates	Regulatory and supervisory considerations
➢ ***Regulatory and supervisory framework*** – to ensure that the regulatory and supervisory framework for Hong Kong remains appropriate, given the evolving financial markets.	➢ Potential regulatory and supervisory gaps created by blurring of traditional boundaries. ➢ Need for increased supervisory co-operation and harmonisation across functional areas. ➢ Reaction to the introduction of a broad array of new products and delivery channels. ➢ Increasing linkage between Hong Kong and other Asian banking, financial and capital markets.
➢ ***Development of the financial system*** – to improve the competitive environment to ensure the positive benefits of global and local trends develop in the Hong Kong market, and Hong Kong remains an attractive international financial centre.	➢ Rationale for removing barriers to free and open competition (e.g. market entry criteria and the one-building condition). ➢ Potential implications of more open competition on smaller local market participants (e.g. removal of the remaining IRRs). ➢ Need to address/react to merger activity. ➢ Increasing economic integration with Mainland China. ➢ Ability of local banks to access Mainland China. ➢ Maintaining relative competitiveness with other financial centres for Mainland China (vs. e.g. Shanghai) and regional processing and/or headquarters (vs. e.g. Singapore).
➢ ***Safety and stability of the banking system*** – to ensure increasing levels of risk associated with global and local trends are prudently managed and that Hong Kong's exposure to systemic risk is mitigated.	➢ Adequacy and effectiveness of the HKMA's risk-based approach to supervision. ➢ Adequacy and effectiveness of safety nets in Hong Kong (e.g. depositor protection and lender of last resort). ➢ Adequacy of risk management capabilities of local banks. ➢ Response to likely increase in remote processing and outsourcing arrangements. ➢ Capital requirements of local banks. ➢ Potential increased exposure to property market.
➢ ***Efficiency and integrity of the financial system*** – to increase the level of transparency, both within the banking sector and across financial and capital markets, to allow the forces of market discipline to work more effectively.	➢ Emerging need for higher standards of sector-level disclosure to support capital markets, through improved transparency at the sector level. ➢ Emerging need for higher standards of institution-level disclosure, to improve operation of the market discipline mechanism and reduce the likelihood of rumour-driven runs.

Source: *KPMG/Barents analysis*

The following two sections provide specific recommendations for evolving the HKMA's regulatory (Section 1) and supervisory (Section 2) frameworks, while Section 3 provides a road map or approach for change.

1 Banking regulatory review and recommendations

1.1 Introduction

The banking environment is dynamic in nature and changes will always be occurring as developments affecting market conditions take place. Consequently, banking regulations and structures also need to adapt to market conditions to ensure that policy objectives are appropriate and consistent with the developing market. The pace of change in the global banking sector, and in Hong Kong, is very rapid and this pace of development appears likely to continue in the near future. As an international financial centre, these developments particularly affect Hong Kong because of the sophisticated transactions being engaged in by banks (to varying degrees) operating locally. Hong Kong faces the dual challenge of determining what policies are most appropriate in the short, medium and long-term, and how its policies can ultimately preserve and enhance its position as a recognised international financial centre.

The impact of the Asian crisis is not only being seen in Hong Kong through a rise in non-performing loans, but also in the number of overseas banks wishing to undertake business here. A number of foreign banks are withdrawing their operations and there are fewer seeking to establish operations in Hong Kong through licence applications. In addition, competition from other financial centres in the region is increasing, either as a result of financial sector deregulation or government incentives to attract business. It is therefore important that existing banking regulations be viewed from the perspective of increasing the attractiveness of Hong Kong as an international financial centre, as well as improving any weaknesses in the market.

Through the strategic review and the assessment of the Hong Kong banking sector, we identified certain specific issues, which needed more in-depth study and analysis. These issues all relate to areas where we consider that the sector as a whole (not individual banks) is affected and where we suggest the HKMA has a mandate to improve overall banking sector regulation. Regulatory issues and the underlying mandates to which they are linked are set out below (see Table 1.1.1):

Table 1.1.1 Strategic mandates and key regulatory considerations

Strategic mandates	Regulatory considerations
➢ ***Regulatory and supervisory framework*** – to ensure that the regulatory and supervisory framework for Hong Kong remains appropriate, given the evolving financial markets.	➢ Potential regulatory gaps created by blurring of traditional boundaries.
➢ ***Development of the financial system*** – to improve the competitive environment to ensure the positive benefits of global and local trends develop in the Hong Kong market, and Hong Kong remains an attractive international financial centre.	➢ Rationale for removing barriers to free and open competition (e.g. market entry criteria and the one-building condition). ➢ Maintaining relative competitiveness with other financial centres for Mainland China (vs. e.g. Shanghai) and regional processing and/or headquarters (vs. e.g. Singapore).
➢ ***Safety and stability of the banking system*** – to ensure increasing levels of risk associated with global and local trends are prudently managed and that Hong Kong's exposure to systemic risk is mitigated.	➢ Adequacy and effectiveness of safety nets in Hong Kong (e.g. depositor protection and lender of last resort). ➢ Capital requirements of local banks.
➢ ***Efficiency and integrity of the financial system*** – to increase the level of transparency, both within the banking sector and across financial and capital markets, to allow the forces of market discipline to work more effectively.	➢ Emerging need for higher standards of sector-level disclosure to support capital markets, through improved transparency at the sector level. ➢ Emerging need for higher standards of institution-level disclosure, to improve operation of the market discipline mechanism and reduce the likelihood of rumour-driven runs.

Source: *KPMG/Barents analysis*

In reviewing the regulation of the sector as a whole it is necessary to consider:

➢ whether all the elements of the current regulatory regime are still appropriate to this developing market and will, in their present form, continue to fulfil policy requirements; and

➢ whether the bank regulations and supervisory processes in Hong Kong are consistent with those in other global financial centres.

In performing this study, we were requested to review four specific policies[1] and the regulations implementing them. Other regulatory issues that emerged during the course of our work were also considered. The views of market participants, on each of the four policies that were reviewed, have been incorporated, including the implications of change that were discussed in interviews. In addition, research was conducted on each policy area and related issues and international comparisons made.

[1] The four policies required to be reviewed were the three-tier system, market entry criteria, the one-building condition and the remaining interest rate rules of the HKAB.

1.2 The three-tier system

1.2.1 Background

The original three-tier system (banks, licensed deposit takers and registered deposit takers) came into being in 1981 with the enactment of the Deposit Taking Companies (Amendment) Ordinance (updated in 1990). This ordinance was introduced in response to market conditions and, in particular, the activities of deposit-taking companies ("DTCs") which, at that time, were not bound by the agreed interest rates set by banks. At that time, independent RLBs and DTCs took a significant proportion of deposits (approximately 30%).

Since then, the contributions to the banking system from independent RLBs and DTCs have reduced significantly. They now account for less than 2% of the market in terms of both loans and deposits (see Table 1.2.1). This reduced importance to the sector needs to be taken into account in considering the structure of the market.

Table 1.2.1 Deposits and loans – banks and banking groups vs. independent RLBs and DTCs

	Banks and banking groups		Independent RLBs and DTCs	
	HK$billion	% of total	HK$billion	% of total
Deposits	2,619	98.24	47	1.76
Loans	4,043	98.08	79	1.92

Note : Banking groups include banks and their subsidiary RLBs and DTCs.
Source : *HKMA as at December 1997*

The policy objectives of the three-tier system are as follows:[2]

"(a) maximising the banking system's contribution to Hong Kong's prosperity by providing a framework within which banks and DTCs can operate profitably, generate employment and channel savings into the productive economy

(b) enhancing the government's ability to effect its monetary policy

(c) providing protection for depositors."

The second policy objective appears to have been overtaken by market developments and monetary reforms introduced since the mid-1980s[3]. The partial deregulation of the interest rate rules has reduced the ability of the government to ensure the effectiveness of the interest rate rules of the HKAB as an instrument of macro economic policy[4] (see Section 1.8).

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2 Paper by the Office of the Commissioner of Banking entitled *The Three-Tier System – Proposals for change to the structure*, May 1988.
3 Examples of reforms include new accounting arrangements, issuance of Exchange Fund papers, establishment of the LAF (now discount window) and the RTGS.
4 DTCs were allowed to compete freely for deposits 3-months or more for amounts of HK$100,000 or more, while banks could not. This has changed following partial deregulation and banks may now compete freely for deposits from seven days.

1.2.2 Assessment of the three-tier system

Strengths

The three-tier system provides a measure of protection to depositors by directing small deposits to banks (i.e. those less than HK$100,000) and, as a consequence, 98% of all deposits in Hong Kong are placed with banks or banking groups (i.e. banks and their subsidiary RLBs and DTCs). Although all authorized institutions are subject to a uniform prudential framework under the Banking Ordinance, those institutions deemed by the HKMA to be unqualified to participate fully in the retail deposit market are appropriately restricted by limiting their market access. Banks, which are required to meet more stringent standards (e.g. minimum capital), are in practice subject to more focused supervisory attention and are the only institutions allowed to undertake banking business.

Despite the limitations on RLBs and DTCs in terms of deposit taking, the three-tier system does allow specialist consumer finance companies and hire purchase/leasing financiers to offer services targeted at specific groups of customers, whose needs might not have been necessarily met by the banks.

The three-tier system also provides a flexible means of entry to the Hong Kong banking market in that overseas banks, which do not meet the entry criteria for fully licensed banks, have the option of entering as DTCs or RLBs. This provides a means for the HKMA to permit new participants, who may not fully meet the criteria to enter as a bank because they do not meet minimum assets size criterion of US$16billion, to enter the market, albeit at a restricted level (see Section 1.4).

By licensing these institutions as RLBs or DTCs, the HKMA is able to assess management of these institutions over a period of time before issuance of more permissive licences. More importantly, some of these institutions may be encouraged to enter as a locally incorporated RLB or DTC to enable the HKMA to exercise more direct prudential control through capital adequacy requirements and large exposure limits.

In addition, the policy of allowing only banks to take deposits of less than HK$100,000 matches the current depositor protection scheme, whereby small depositors (less than HK$100,000) become preferred creditors in the event of the liquidation of a bank.

Weaknesses

In Hong Kong, there is a considerable number of RLBs and DTCs (91) that are owned by either local banks (23) or foreign banks (68) that also have a full banking licence (see Table 1.2.2):

Table 1.2.2 Ownership of RLBs and DTCs in Hong Kong

	Owned by a local bank	Owned by a foreign bank in Hong Kong	Owned by a foreign bank not in Hong Kong	Independent	Total
RLBs	3	22	32	8	65
DTCs	20	46	35	11	112
Total	23	68	67	19	179

Source: *HKMA as at June 1998*

Due to the fact that there are no restrictions on banks for conducting banking business and taking deposits, there would appear to be little value for banks to maintain separate subsidiary RLBs or DTCs, especially with the deregulation of the interest rate rules down to and including seven-day deposits. However, the reasons given by banks for keeping these additional regulated entities include:

- the original purpose for establishing these institutions was to compete against DTCs for deposits which were previously not covered by the IRRs[5] and they saw no need to revoke these licences;
- these subsidiaries are used for specialised financial services, such as private banking, finance leasing and hire purchase;
- some of these institutions have been acquired and the licences maintained;
- some of these institutions are joint ventures with other parties; and
- they are concerned that if they surrender the licence they will not be able to obtain another one easily in the future.

However, the fact that there are 91 subsidiary RLBs and DTCs, that are authorized to take deposits, requires at least a minimum amount of supervisory resources to be devoted to such entities. This represents a duplication of effort on the part of both the HKMA (to supervise compliance) and the sector (in terms of efforts expended to meet prudential requirements). As an example, the 91 institutions submit some 1,200 statistical returns to the HKMA every year, although the cost of this additional supervision is recovered to an extent through the licence fees.

The three-tier system was created in reaction to market conditions in the early 1980s. This has resulted in a licensing structure that is, to a certain extent, not fully in line with the policy of protecting depositors. Under the current licensing structure, DTCs have

[5] The IRRs now only cover 27% of Hong Kong dollar deposits and 14% of total deposits.

greater access to small deposits than RLBs, even though they are not required to hold as much paid-up capital. DTCs are, however, are required to meet the same capital adequacy ratio requirements as RLBs. This is at odds with the normal expectation that access to smaller deposits would increase in line with the grade of licence and entry requirements (i.e. minimum capital requirements) (see Table 1.2.3 below):

Table 1.2.3 Minimum capital requirements and access to deposits

	Minimum capital requirements	Access to deposits as currently exists in Hong Kong	Access to deposits if it was in line with minimum capital requirements
Banks	HK$150million	No restrictions	No restrictions
RLBs	HK$100million	HK$500,000 and above	HK$100,000 and above
DTCs	HK$25million	HK$100,000 and above with maturity of 3-months or more	HK$500,000 and above

Source: *HKMA*

A further point to note is that although RLBs and DTCs provide competition to banks for the provision of financial products and services, this competition (and consequently their market share) is restricted. In particular, the fact that DTCs cannot offer deposits with less than three months maturity is a key limitation when viewed in the context that, in Hong Kong, the maturity structure of the retail deposit base is predominantly less than three months.

1.2.3 *Comparison with other international financial centres*

Hong Kong, as with other international financial centres, has a tiered licensing system for its deposit-taking institutions (see Table 1.2.4):

Table 1.2.4 Comparison to other international factor centres

Hong Kong	US	UK	Singapore	Australia
Licensed banks	National banks	Clearing banks	Fully licensed banks	Commercial banks
Restricted licensed banks	State chartered banks	Building societies	Restricted licence banks	Building societies
Deposit-taking companies	Savings & loans	Commercial banks	Merchant banks	Credit unions
	Thrifts	Merchant banks	Foreign licensed banks	Money market corporations
	Credit unions	National savings banks		

Source: *KPMG/Barents analysis*

In each of these countries, the business activities of different institutions vary and reflect the development of their respective financial markets. However, there is increasingly a trend towards unitary licensing systems which reflects the blurring of financial markets globally. For example, in the US, there are several classes of depository institutions but there is little to distinguish between them and there are initiatives towards a unitary system.

1.2.4 Views of market participants

There do not appear to be strong views among respondents on whether the structure of the three-tier system should be changed. A significant number of institutions (45%) had no opinion on this with the others being evenly divided over this issue. The view on whether to change to a two tier system (in which DTCs and RLBs are merged into a single type of authorized institution) was also inconclusive, with 50% of institutions having no opinion.

On the other hand, a majority (61%) of respondents considered that the three-tier system promotes stability in the banking sector, with the figure being higher for locally incorporated licensed banks (75%) and multi-branch foreign banks (74%). Furthermore, 64% of institutions agreed that the three-tier system provides a flexible means for new entrants to enter the banking sector and this opinion was consistent across all types of institutions.

The three-tier system is generally thought to provide protection to small depositors with 51% of institutions having this view. This figure was higher for locally incorporated banks (64%) and multi-branch foreign banks (74%). A majority of locally incorporated banks (75%) and multi-branch foreign banks (61%) are firmly against lifting or relaxing the present prohibitions on DTCs and RLBs to take short-term and smaller deposits. In contrast 60% of RLBs and DTCs are in favour of this.

Overall, 76% of respondents believed that their current class of licence was adequate for their business plans for the next five years. The only class of respondents who did not believe that their licences were adequate were foreign RLBs, where a significant number (41%) did not believe so.

Views expressed in the interviews were generally more in favour of change. A number of institutions commented that the system was complex and confusing (to institutions, their customers and to overseas interests) and was the result of a convoluted history of banking development in Hong Kong. In general, banks are supportive of a review of the system but consider that, if there were to be any developments to the three-tier system, it should be a comprehensive exercise rather than a small incremental change.

1.2.5 Future considerations

The three-tier system may appear outdated as the world moves increasingly towards unitary licensing policies. However, a tiered approach in Hong Kong is necessary because all banks are allowed full access to the retail market. A tiered system can distinguish banks qualified (i.e. those that meet existing authorization criteria) to accept small deposits from institutions that should be restricted to other types of deposits for prudential reasons. An appropriate set of policy objectives to address this need would be to provide:

- a framework which allows a broad range of domestic and international institutions to participate in the Hong Kong banking sector; and

- protection for small depositors.

Such a licensing system (combined with market entry criteria) puts the onus on foreign banks to be of sufficient size to demonstrate expertise, competence and experience in international affairs under market conditions in order to qualify as fully licensed banks in Hong Kong. In the wake of banking sector problems elsewhere in the region, including in advanced economies such as in Japan, a tiered licensing system providing limited access for certain foreign institutions would appear prudent for the time being.

Despite this, there are problems associated with the current three-tier approach:

- First, the system is complex and there is a significant duplication of licences (i.e. banks have 91 separately regulated subsidiaries), which is not in itself efficient for the sector.

- Second, the structure of access to smaller deposits is not in line with the minimum capital requirements, although this is to an extent mitigated by the deposit maturity limitations on DTCs (i.e. deposits must be for 3-months or more).

- Third, while the HKMA needs to monitor exposure and linkages in portfolios that could pose greater risk than is evident from just market share, there does not appear to be a strong need to maintain a separate third tier for institutions holding such a small market share (i.e. less than 2% in total).

In the past, the three-tier system has provided the HKMA with a means of segmenting the market and providing licensing discretion in support of safe and stable banking. However, going forward, the need to distinguish RLBs from DTCs no longer appears necessary in view of market developments, the forces affecting the banking sector and the resultant trends (i.e. the blurring of financial markets and consolidation).

Recommendations

Simplifying the three-tier system to address these issues appears to be a logical way forward for Hong Kong as an international financial centre. We also consider that the policy objective of protecting depositors and therefore the general stability of the sector can be achieved more efficiently through a simplified structure. Accordingly, we recommend that the HKMA consider converting the licensing system to a two-tier system, an example of which is outlined below (see Table 1.2.5):

Table 1.2.5 Recommended two-tier system

	Banks	Restricted licence banks
Limitation on deposit size	No restrictions	No small deposits allowed
Current and savings accounts	No restrictions	Not allowed

Source: *KPMG/Barents analysis*

Although there is an international trend towards unitary bank licensing systems, the diversity of foreign banks in Hong Kong and the consequent need to distinguish between these is best achieved with a tiered system. In the proposed two-tier system, the licensed bank and restricted licence bank categories are maintained as authorized institutions and the DTC category would be eliminated (i.e. DTCs would be precluded from taking deposits). The essential distinctions between the two tiers are:

- the ability to conduct *banking business* (i.e. offer current and savings accounts); and
- access to small deposits.

This tiered system would provide a framework which allows both a flexible means of entry to the banking market to attract new overseas participants and, at the same time, provide a measure of protection to small depositors.

The key issue with this two-tier approach is the definition of small deposits, as this affects the depositor protection aspects of the system. There are essentially two main option which can be considered in defining small deposits:

- ***Option 1*** - an amount based on a study of the current deposit market (i.e. the distribution of account balances) which could be adjusted for inflation on a periodic basis; or
- ***Option 2*** - a fixed amount of HK$500,000 (i.e. the current distinction between the deposits that banks and RLBs can accept).

Implications of change

For Option 1, the distribution of accounts should be collected from the 40 main deposit-taking banks and an assessment made to determine an appropriate definition for small deposits. Given the passage of time, it is unlikely that the 1980 amount of HK$100,000 would be an appropriate distinction between banks and RLBs under the proposed two-tier structure[6]. Performing this review and setting the definition for small deposits would take account of inflation since the original introduction of the three-tier system and the current behavioural patterns of consumers' savings.

Although this amount should be periodically reviewed and adjusted to reflect inflation and changes in consumer behaviour, there is a practical issue in that deposits held by RLBs below the revised minimum would need to be run-off. Therefore, to minimise

[6] For example, inflation for the period from 1980 to 1997 was approximately 460% compounded.

practical complexities relating to the run-off of deposits, it would be appropriate to only change this definition when there has been a *significant* change in value.

The limit in Option 2 of HK$500,000 was originally set in 1980, when the three-tier system was introduced. The main advantages in using this limit are that it is already well known to the market and would maintain the current level of access by RLBs to retail deposits. Therefore, there is unlikely to be a significant impact on the overall level of competition and the stability in the market.

Another aspect to consider in deciding between these options is that access to the small deposit market (i.e. less than HK$100,000) currently matches the depositor protection scheme under the Companies Ordinance. This clearly distinguishes between deposits taken by banks and those taken by other authorized institutions (i.e. RLBs and DTCs are excluded). The policy objective of protecting small depositors under the three-tier system is thus consistent with that for depositor protection under the priority claims scheme. However, if small deposits are defined to be a higher amount, then a portion of these small deposits would not be covered by the priority payment scheme, thereby reducing the effectiveness of the licensing system to protect small depositors. In considering any change, the HKMA would therefore need to review whether these two should be kept in line to maintain consistency.

In deciding whether to change the existing three-tier system, the HKMA also needs to consider the following issues:

- The degree to which a two-tiered system could add to systemic risk in the marketplace. DTCs not wishing to upgrade would become unregulated finance companies (i.e. moneylenders) and their existing licences would need to be revoked.

- Currently, RLBs and DTCs face different restrictions on the use of the word *bank* in their names and the description under which they do business[7]. Therefore the HKMA will need to review this restriction in relation to the new second tier institutions, in particular those DTCs that upgrade.

Access to the RTGS system

A related issue, raised by a number of institutions and the Deposit-taking Companies Association in the course of our work, is the means used to determine access to the RTGS system. At present, all fully licensed banks are required to participate in the RTGS system and RLBs and DTCs are not permitted access. This limitation on access matches the distinction between fully licensed banks and other authorized institutions' ability to perform banking business (i.e. only banks can operate current accounts), a de facto requirement of which is access to clearing and payment systems. A number of RLBs have noted that this places them at a competitive disadvantage in that they have to pay transaction processing fees to clearing banks for their settlement functions.

[7] For example, DTCs may not use the word bank in their name. The picture for RLBs is more complex, refer Section 97 of the Banking Ordinance.

The principal reason for introducing RTGS systems world-wide[8] was to help eliminate interbank settlement risk. In other countries, participation in these schemes is generally restricted to banks, deposit-taking institutions or other specified institutions (generally government agencies such as central banks). However, membership of such schemes is generally open to all such institutions (i.e. to all deposit-taking institutions or banks) rather than to only a subset. For example, in the US, the system is open to all depository institutions, federal government agencies and certain other institutions. In a few countries, however, access is restricted.

Given the emerging nature of financial markets, where authorized institutions are increasingly involved in securities transactions, restricting RLBs' access may place them at a competitive disadvantage, given the significant amount of interbank transactions they may conduct as part of this business. In fact, it is apparent that certain RLBs' business requirements can exceed those of some smaller banks in this regard. There is no apparent reason in terms of systems capacity to restrict RLBs from having access to RTGS. In addition, the collateralised nature of the system effectively mitigates counterparty risk.

We have found no other reasons (theoretical or otherwise) that require access to RTGS to be set based solely on an institution's licensing status. It may therefore be appropriate that this issue be reviewed in conjunction with a change towards a two-tier structure and a more appropriate means of defining access criteria should be considered. For example, access could be based on objective criteria based on an institution's business needs rather than licensing status.

8 For example, RTGS systems have now been implemented in Belgium, France, Japan, Italy, Germany, the Netherlands, Sweden, Switzerland, the US and the UK.

1.3 The one-building condition

1.3.1 Background

The one-building condition limits foreign branch banks and foreign branch RLBs to carrying on their business from one building only (this effectively limits them to a single branch operation). Foreign branch banks subject to this condition may also maintain one back office and one regional office in separate buildings.

Consistent with the original policy objectives of the three-tier system, the one-building condition was devised to address the perceived dichotomy between competition and banking stability. At that time, there had been concerns that the proliferation of branches, and consequently increased competition, would introduce unwanted instability to the banking sector. Furthermore, foreign banks already accounted for a significant share of the retail market and their presence was likely to increase as more foreign banks applied for authorization. Therefore, a restriction on their branching capabilities and their access to the retail market was considered appropriate on grounds of stability.

Despite this restriction on new entrants, the one-building condition has had little impact on the number of foreign banks wishing to enter the Hong Kong market. For example, since 1978, the number of foreign banks has increased from 67 to 151. This is in part due to the opening up of the Mainland China market and also the fact that Hong Kong is an important centre for financing in the Asian region. The financing of trade-related business, capital raising activities, corporate and syndicated lending and offshore business do not require branch networks to the same degree as retail banking. As a result, the one-building condition has detracted little from the attractiveness of Hong Kong as a banking market to banks wishing to engage in wholesale (as opposed to retail) banking activities.

1.3.2 Assessment of the one-building condition

Foreign branch banks subject to the one-building condition are effectively limited from full participation in the retail market since they cannot develop branch networks. However, despite this restriction, a number of these one-branch foreign banks have endeavoured to compete in certain areas of the retail market such as retail mortgages and credit cards. Nevertheless, the policy does limit the ability of new market entrants to set up and compete against the existing players. Therefore, in practice, the policy acts as a direct limitation to an open retail market and protects current participants from competition. This may act as a disincentive to consolidation.

In view of the effective block on foreign banks setting up locally incorporated banks, the only means for new market entrants to gain full access to the retail market is to acquire an existing player in the market. This situation in turn means that there is a perceived premium to be paid for a multi-branch banking licence, of which there are only a limited number available.

The one-building condition also places restrictions on banks' abilities to effectively carry on their business in other areas. For example, certain banks may wish to locate different parts of their front office activities (e.g. treasury) in different buildings for a variety of reasons (e.g. during the transitional phase of relocating to new premises or to reduce costs).

The one-building condition effectively represents a restriction on delivery channels and can be circumvented with development of newer and more advanced delivery channels. Although the policy takes into account ATMs, it does not restrict business conducted through new delivery channels such as the internet and phone banking. Hong Kong's telecommunications infrastructure allows banks to provide electronic services to clients without the cost of a branch network. Continuing development of newer channels, especially internet and remote banking, is likely to make the one-building condition less of a barrier to retail banks without branch networks.

1.3.3 *Views of market participants*

A majority of respondents (63%) agreed that the one-building condition gives an advantage to those banks possessing a branching option and very few respondents (6%) actually disagreed with this. A majority (66%) of locally incorporated licensed banks and multi-branch foreign banks agreed that they had an advantage in this regard. However, there was no clear response on whether the policy was a deterrent to market entry, where 36% thought that it was and 23% thought that it was not. Foreign branch RLBs were the only group of entities that had a majority opinion (53%) that the policy was a deterrent to market entry.

Although there was no clear opinion on whether the policy increased the stability of the banking sector, only 9% of respondents thought that the policy was detrimental to bank safety and soundness.

Even though the majority of respondents did not think that the one-building condition deterred entry to the market, over 62% stated that removing the policy would promote competition and only 3% disagreed with this. Additionally, 16 single-branch foreign banks (30%) considered that the policy had hurt their ability to compete, while 20 banks (37%) thought that it had limited the range of their products and services. These sentiments were confirmed in the interview process and there was general agreement that the policy was no longer relevant and that it should be removed to level the playing field.

Interestingly, although those institutions subject to the policy were vocal in their view that removing the one-building condition would promote competition (73%), only 12 institutions (20%) indicated that they would expand their branch network if the policy was eliminated. Virtually all of those who would expand their branch networks were single-branch foreign banks (11 institutions), the other institution being a foreign branch RLB. Of the 11 foreign banks seeking to expand branch networks, a noticeable trend was that four were Mainland China banks.

1.3.4 *Future considerations*

The one-building condition perpetuates an uneven playing field for banks in Hong Kong. The concept of restricting foreign banks to a fixed number of buildings is inconsistent with a desire for open markets, especially when some foreign banks (16) are able to have branch networks and others are not.

The role of branches in a bank's business is going through a period of rapid change, as new technology and product delivery channels develop and take over the some of the activities that were previously undertaken in branches. This is not to say that branches will become obsolete in the future but rather that their relevance to certain types of transactions may decrease significantly, whereas their significance in other activities may increase. For example, telephone banking and ATM networks have already significantly reduced cash based transactions, while investment advisory services are on the increase in branches.

All banks will therefore need to reassess the use for their branch networks and the cost effectiveness of maintaining them. In terms of market entry, the development of new delivery channels is likely to lower the barrier to entry that established branch networks represent.

Recommendations

The one-building condition no longer appears to be appropriate to Hong Kong and acts as a barrier to competition. At the same time, there is a risk that its removal could result in an increased level of competition that could be detrimental to banking stability. Ultimately, we recommend that it should be removed completely to allow a level playing field for all participants and to allow banks to determine their level of investment in a branch network versus other delivery channels.

In order to minimise the risk of systemic instability, the HKMA could consider phasing in the relaxation of this policy. For example, foreign branch banks and foreign branch RLBs might be allowed to operate no more than three branches[9] for a set period, with further relaxation of the policy subject to a review at that time.

Additionally, it is important that the HKMA maintains the requirement that the opening of new branches be subject to its approval so that a level of control can still be maintained.

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9 If all foreign branch banks and RLBs subject to the existing one-building condition were to open two new branches, this would increase the number of branches in Hong Kong by approximately 13%.

Implications of change

Permitting increased access to the retail market by single-branch foreign banks will increase competition, as those new competitors seek to expand their market share. However, the overall impact on the number of branches does not appear to be significant, particularly in view of the limited number of institutions that have stated a desire to expand. Despite this, certain issues should be considered by the HKMA prior to release of the policy. These include:

- The costs and benefits of more competition in the retail market and the resulting impact on local banks.

- The role of branch networks going forward, particularly in the light of recent innovations in consumer banking such as internet banking, through which business can be conducted without the need for physical branches.

- The interest among Mainland Chinese banks in expanding branch networks in Hong Kong.

- A number of institutions subject to the one-building condition maintain a separate back-office and/or regional office. Including these offices in the revised branch restrictions (i.e. three branches) would not be appropriate as these offices need to be located in cost-effective sites, which may not be suitable for a front-office location. The continuing need for restrictions on back and regional offices, following relaxation of the one-building condition, should be reassessed.

1.4 Market entry criteria

1.4.1 Background

Market entry criteria are required to set minimum qualification requirements for access to the banking sector. These qualifications need to reflect the level of access to the market granted to an institution under the licensing structure (i.e. at present, the three-tier system).

The HKMA may only grant an institution authorization if all of the market entry criteria, set out in the Seventh Schedule of the Banking Ordinance, are met.

Some authorization criteria are entry criteria and some are of a continuing nature. The focus of this study, in reviewing the authorization criteria, has been to assess whether the ease and form of market entry for potential market participants is appropriate. Therefore, we have not reviewed the continuing criteria, as these are in practice intended to be consistent with the Basle Committees' Minimum Standards for supervision of international banks and the Core Principle for Effective Banking Supervision.

In this context, five types of market entry criteria for authorized institutions have been considered:

- minimum size;
- minimum capital requirements;
- association with Hong Kong;
- time period; and
- ownership.

Each of these criteria, as they apply to the different types of authorized institutions, are summarised below (see Table 1.4.1):

Table 1.4.1 Entry criteria for authorized institutions

	Locally incorporated banks	Foreign bank branches	RLBs	DTCs
Capital requirement	HK$150m	No branch capital required	HK$100m (for local incorporated RLBs) No branch capital required (for foreign incorporated RLBs)	HK$25m
Association with Hong Kong	Must in the opinion of the HKMA be closely associated with Hong Kong	Not applicable	Not applicable	Not applicable
Time period	Must have been an RLB or DTC for 10 years	Required to have maintained a local representative office for 1-2 years	No specified time for a locally incorporated institution. In practice foreign banks should have maintained an LRO for 1-2 years	
Ownership	For all authorized institutions the HKMA must be satisfied as to the fitness and propriety of controllers of these institutions. The HKMA policy is that a person who intends to hold more than 50% of the share capital of an authorized institution incorporated in Hong Kong should be a well established bank or other supervised financial institution in good standing in the financial community and with appropriate experience.			

Source: *HKMA*

1.4.2 Original policy objectives

The criteria form an important part of the structure of the banking system and are intended to encourage the continued development of Hong Kong as a sound financial centre. The various criteria were introduced from the 1970s onwards and have also been changed periodically, resulting in their current form in 1995 with the introduction of the Seventh Schedule to the Banking Ordinance.

Size criteria

The asset size criterion for foreign banks applying for entry was originally introduced in 1978 and set at total assets of US$3billion. This was increased in stages, the latest being to US$16billion. The minimum asset size criterion was intended to ensure that only substantial and reputable international banks would be admitted as fully licensed banks. A principal reason behind this was the fact that obtaining a bank licence would allow them access to the small deposit market.

However, in a review of the three-tier system in 1987, it was already recognised that such a policy was inflexible. Accordingly, the HKMA was given the power to override this size criterion if it considers that, in doing so, it would help promote the interest of Hong Kong as an international financial centre. This size criterion has been overridden only twice[10] since then.

The asset size (and deposit criteria) for locally incorporated banks were originally introduced in 1981. Minimum total assets were set at HK$2billion for similar reasons to those noted above for foreign banks. These criteria are subject to annual review and have been increased over the years, with the most recent being in 1992, when minimum total assets was increased to HK$4billion and minimum total deposits to HK$3billion.

Minimum capital requirement

Minimum capital requirements have existed since the 1964 Banking Ordinance, but have been changed periodically to their current levels (see Table 1.4.2). These amounts have been changed over time to reflect the change in value of money and also to reflect the changing status of each tier of institution.

Table 1.4.2 Minimum capital requirement for each type of authorized institution

Date	Banks	RLBs	DTCs
1964	$5million	-	-
1967	$10million	-	-
1976	$10million	-	$2.5million
1981	$100million	$75million	$10million (raised in stages)
1989	$150million	$100million	$25million

Source: *HKMA*

The purpose of the above minimum capital amounts is to ensure that an institution has adequate financial resources to support its business at the initial investment stage, when it may be in a loss-making position. A minimum amount of paid-up capital also demonstrates commitment from shareholders due to its permanent nature. In conjunction with the Basle CAR, minimum capital requirements also demonstrate the adequacy of financial resources for the nature and scale of an institution’s business. Minimum capital applies equally to all institutions, whereas minimum CAR requirements, which are a function of the size and nature of the institutions activities, may be varied at the discretion of the HKMA.

There are no capital requirements for foreign branches (in any tier) operating in Hong Kong because, as branch banks, they are supported by the capital of the whole bank. Therefore, from a supervisory perspective, the HKMA has limited control over foreign banks’ capital adequacy compliance, although all foreign incorporated authorized institutions are required to meet a minimum ratio of 8% in their country of

[10] Bank of New Zealand in 1987 and Bank of Ireland in 1988, although both have now revoked their licences.

incorporation. If their CAR fell below 8%, the HKMA would have the power to revoke their authorization in Hong Kong.

Minimum time period and association with Hong Kong criteria

These criteria originated in 1981 after the moratorium on banking licences was lifted. The principal objective was to ensure that:

> *"locally incorporated applicants should reflect predominantly Hong Kong interests and to prevent any foreign bank which could not obtain a licence for a branch because it did not satisfy the criteria from obtaining a licence through a subsidiary".*

This objective was originally set out in the form of requirements that:

- a local bank must be predominately beneficially owned by Hong Kong interests (the *Hong Kong ownership* criterion);
- the applicant must have been in the business of taking deposits from and granting credit to the public in Hong Kong for at least ten years; and
- registered under the Deposit-taking Companies Ordinance.

The beneficial ownership criterion was expanded in 1992 to include institutions that are also, in the opinion of the Governor in Council, otherwise closely associated and identified with Hong Kong. In the Commissioner of Banking's Annual Report for 1992, it was stated that:

> *"In assessing whether an institution meets this criterion, the Governor in Council will take into account such factors as the institution's history, whether it has a separate identity whose mind and management is based in Hong Kong, the location of the institution's business and the proportion of the institution's shareholders which are based in Hong Kong."*

This change reflected the increasing difficulty of interpreting what constitutes *"Hong Kong ownership"*.

It follows from the criteria that, in practice, a foreign bank cannot set up a new subsidiary with a full bank licence in Hong Kong[11]. This is because a locally incorporated bank must have been a DTC or RLB for not less than ten continuous years before it is eligible to apply for a full banking licence. This is evidenced by the fact that, in the period since 1981, only three new locally incorporated banking licences have been granted[12] and all applicants had a long period of association (well in excess of ten years) with Hong Kong.

[11] See HKMA Guide to Applicants for authorization under the Banking Ordinance.

[12] Wardley Limited 1993 (renamed HSBC Investment Bank Asia Limited), Jardine Fleming Bank 1993 and Sun Hung Kai Bank 1982 (renamed International Bank of Asia).

It should be also noted that foreign banks (or other regulated financial institutions) are able to apply for RLB or DTC status if they do not meet the entry criteria for a foreign bank branch. Entry as a RLB is not as restricted (e.g. no minimum asset requirement) and foreign institutions have the choice of either local incorporation or branch status. On the other hand, all DTCs (with the exception of two Japanese DTCs) are locally incorporated and, in practice, only locally incorporated companies are granted DTC licences.

Ownership

It is generally the HKMA's policy that a person who intends to hold more than 50% of the share capital of an authorized institution incorporated in Hong Kong should be a well established bank or other supervised financial institution. This criterion was implemented in 1981, following a rapid increase in the number of DTCs (40 new DTCs in the first quarter of 1981) and was intended to ensure that only a fit and proper person may own an institution that takes deposits from the public.

The policy helped ensure that majority ownership of authorized institutions will be confined to financial institutions which are subject to consolidated supervision and which have a lender of last resort behind them. In practice, the policy has been strictly enforced only in the case of RLBs and DTCs and there are a number of cases where existing licensed banks in Hong Kong have been acquired by non-banks.

1.4.3 Assessment of the market entry criteria

Size criteria

Foreign bank branches

The minimum asset size criterion is important because it acts as a proxy for the quality of the entrant. A bank of this size should, in practice, have the management and systems to be able to control overseas operations. It should be noted that the assets size of US$16billion allows access by the world's 333 largest banks[13], of which 105 are represented in Hong Kong. However, asset size is not always a good indicator of asset quality and prudence of bank management, which ultimately affects the banks' safety and soundness.

The asset size criteria also restrict certain niche market banks, with assets of below the US$16billion minimum, from obtaining a full bank licence. However, the HKMA has the power to relax this requirement if it considers it appropriate to do so to promote the interests of Hong Kong as an international financial centre. These banks can also enter the Hong Kong market in the form of an RLB, for which authorization is not subject to the size criteria.

[13] Source: *Bankers, July 1997*

Locally incorporated banks

The difference between the minimum asset size criteria for local banks (HK$4billion) and foreign banks (US$16billion) is significant. However, in general, domestic banks are smaller than international banks and are under the direct home supervision of the HKMA. Therefore, it would not be appropriate to set the same assets size criterion for both foreign and local institutions. It should also be noted that there is a minimum deposit criterion of HK$3billion for local banks.

The size criteria for locally incorporated banks provide transparent targets for RLBs and DTCs to meet in order to upgrade to a full bank licence. Similar to the size criterion for foreign banks, the size of a deposit base and assets demonstrate a reasonable degree of management experience and systems in place to compete in the domestic market.

Minimum capital requirements

Foreign branches

The fact that foreign branch banks have so much access to the local banking market has raised some concerns in that they do not presently need to keep any minimum capital in Hong Kong. Local banks, in particular, see this as being an unfair competitive advantage and consider that foreign banks should have the same capital requirements as local banks. One specific view expressed by bankers in this respect was that the specific CAR requirement set by the HKMA, which is in excess of the Basle 8% minimum, is higher than the requirement on foreign banks set by their home supervisor.

When a form of branch capital is required, this can, broadly speaking, be divided into the following two main types:

- ***Branch capital –*** a set minimum capital requirement for a foreign branch bank, which may (or may not) be similar to the minimum capital requirements for a locally incorporated bank.

- ***Quasi branch capital –*** maintaining a set minimum amount of head office funds (e.g. long-term loans from the parent bank), which is in effect capital, although it may not be represented in the balance sheet as such (e.g. represented as long-term intra-group borrowings).

The principal reasons for branch capital or quasi capital requirements include:

- ***It demonstrates commitment by the parent bank*** – similar to minimum capital requirements for locally incorporated institutions, a certain level of capital investment from the parent bank represents a level of commitment to the local banking sector.

- ***Capital investment*** – certain countries seeking long-term foreign capital investments use this as a means of achieving economic objectives (e.g. maintenance of a capital account surplus).

- ***Depositor protection*** – requiring a capital cushion or certain holding of assets is a method of ensuring that in the event of liquidation, sufficient funds would be available to effect repayment to depositors.

The *level playing field* issue is also quoted as a reason to require branch capital. However, this is more appropriately viewed in the context of capital adequacy regimes, rather than a minimum capital requirement. All authorized institutions operating in Hong Kong are subject to a similar capital adequacy regime. For example, locally incorporated institutions have set minimum ratios, while foreign banks applying for entry must, in general, meet (on a continuing basis) a minimum capital adequacy ratio of 8% (calculated in a way which is consistent with the Basle Capital Accord) at the parent bank level. However, foreign branch banks have more flexibility in that they can leverage off their parent bank's capital, which is likely to be larger than most local banks, and therefore can aggressively expand (or contract) their balance sheets in Hong Kong. The imposition of branch capital does not resolve this issue, as foreign branch banks would also need to be subject to minimum capital and local capital adequacy ratios. Imposing such a requirement is likely to detract from Hong Kong's position as an international financial centre.

In view of the fact that the investment cost of opening a branch in Hong Kong already represents a strong degree of commitment from the parent bank, there is no apparent need to require branch capital to further demonstrate this commitment. In fact, requiring capital may work against the objectives of attracting a broad range of foreign participants to Hong Kong, especially in the light of the current economic circumstances surrounding a number of Asian countries which have reduced the attractiveness of the region as a whole.

Hong Kong permits a free flow of capital and, therefore, imposing a branch capital requirement could be seen to be some form of capital control. This was a point that was commented upon by several foreign banks.

One of the more important issues in Hong Kong is the case for improved depositor protection in case a bank fails. Requiring some form of branch capital may appear as one way of dealing with this issue in relation to a foreign branch bank. However, this needs to be viewed in terms of the liquidation process applicable in Hong Kong (for details see Section 1.6).

Under the liquidation framework in Hong Kong, requiring some form of branch capital would be less effective at improving depositor protection than, for example, an asset maintenance requirement[14]. In a liquidation, the surplus assets of the branch (i.e. after deducting priority claims) would be applied equally for the benefit of all creditors world-wide. Therefore, increasing the potential amount of surplus assets, by imposing a branch capital requirement, may benefit priority claims depositors but not others. In addition, the liquidator would only have jurisdiction over Hong Kong-based assets of the branch. However, the potential increase in surplus assets that branch capital may

[14] *Asset maintenance* – a requirement to maintain a certain amount of specified assets (usually in Government bonds or other liquid assets) either deposited at the central bank or in a commercial bank. The amount of assets required to be maintained is generally set in relation to the deposit taking activity of the branch (e.g. 5% of total third party liabilities).

provide is affected by the amount of assets in Hong Kong. An asset maintenance requirement would be a more direct way of dealing with this issue (i.e. to try to ensure that there are sufficient surplus assets in Hong Kong to pay-off priority claims depositors in a liquidation of a branch bank).

Based on the above, there is no strong case for requiring foreign branches to maintain capital in Hong Kong. However, the issue of asset maintenance would warrant further consideration from the point of view of depositor protection (see Section 1.6).

Locally incorporated institutions

The minimum capital requirements for local banks were last increased in 1989[15], partly to take account of the change in the value of money since 1981 and, for RLBs, to reflect the additional status and privileges granted to them when they replaced the then second tier of licensed DTCs. The effective inflation since 1989 has been 95%. The effectiveness of the level of minimum capital in ensuring that new entrants have sufficient financial backing has therefore been substantially diminished.

At present, the average ratio of shareholders' funds to assets, for locally incorporated banks, is around 8.71%[16]. For a newly incorporated bank meeting the minimum capital (HK$150million) and minimum assets (HK$4billion) requirements, this ratio would be 3.75%. In practice, the minimum capital requirement therefore appears low in comparison to the minimum assets criteria.

Associated with Hong Kong and time period criteria

In granting an authorization for a locally incorporated bank, the HKMA will take into account factors such as the historical association of the institution with Hong Kong. A foreign bank entering Hong Kong would not, in practice, be able to set up a local bank subsidiary immediately as they need to have operated as an RLB or DTC for at least ten years. However, a foreign bank may either wholly acquire or partially invest in an existing locally incorporated bank, with the approval of the HKMA. In fact, this has occurred a number of times since 1978[17].

Since the association with Hong Kong and time period criteria were introduced, a significant number of foreign banks have entered the market and there is little evidence that restricting them to branch status only has deterred new market entrants. A principal reason for this is that foreign branch banks do not have to hold any capital in Hong Kong, which provides them with greater flexibility. This is evidenced by the fact that there are certain foreign branch banks (with multi-branch licences) which, due to their long involvement with Hong Kong may meet the criteria for local incorporation but have not approached the HKMA to do so[18]. For example, Standard Chartered Bank has been present in Hong Kong well in excess of ten years and remains a foreign branch

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15 Source: *Annual Report 1989 – Commissioner of Banking*
16 Source: *KPMG Banking Survey Report 1997-98*
17 For example, Wells Fargo invested in Shanghai Commercial Bank, Abbey National and Hambros invested in D.A.H. Private Bank, Guoco Group purchased Dao Heng Bank and Overseas Trust Bank and Arab Banking Corporation purchased International Bank of Asia.
18 There is currently no provision in the Ordinance to allow a foreign branch bank to convert to a locally incorporated bank and this would need to be addressed if there was pressure from foreign banks that would otherwise qualify.

bank with 85 branches as at March 1998[19]. Therefore, few foreign institutions, which meet the requirements to establish a fully licensed bank branch, are likely to prefer establishing locally incorporated bank subsidiaries.

The fact that foreign banks cannot, in practice, incorporate locally does have certain drawbacks from a supervisory point of view because less supervisory control can be exercised locally. For example:

- minimum capital adequacy ratios are set by home country supervisors;
- the lead regulator is domiciled outside Hong Kong; and
- the same level of financial disclosure may not be applicable.

In particular, disclosure of financial information is important in terms of providing transparency of institutions to depositors, to assist in decisions regarding with which institutions to place their funds. This is especially true in Hong Kong, where foreign banks have a substantial market presence.

Ownership

The ownership restriction for locally incorporated banks reflects the need to ensure that only fit and proper persons are able to set up or own a deposit taking institution. This is particularly important in view of the additional fiduciary duties that such institutions have to their depositors as well as their shareholders. There have been numerous cases world-wide where poor bank management or unqualified owners have caused depositors to lose their money (e.g. The Bank of Credit and Commerce International).

The ownership criterion restricts the ability of non-banks (both domestic and foreign entities) to set up a bank and compete as new participants. However, as noted earlier, there are a number of exceptions to this criterion in the case of existing locally incorporated banks[20]. Additionally, such non-banks are allowed to participate in joint venture arrangements or as minority shareholders, provided that they meet the requirements to act as *controllers*.

It should be noted that Hong Kong, when compared to other international financial centres, is unusual in terms of the extent to which foreign branch banks actively participate in retail banking. In most other developed financial centres, this is the preserve of domestic banks (i.e. those that are locally incorporated). In this broader context, Hong Kong must be viewed as an open market with few barriers to entry.

1.4.4 Comparison with other international financial centres

The market entry requirements for other countries vary considerably and it is therefore difficult to make direct comparisons. In addition, the circumstances for each country differ in relation to access to the retail market and depositor protection, which further

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[19] Standard Chartered Bank may be regarded as the oldest bank in Hong Kong having had a presence since 1859.

[20] For example, CITIC invested in Ka Wah Bank (renamed CITIC Ka Wah Bank) and China Merchants Group invested in Union Bank of Hong Kong.

complicates the issue. These factors should therefore be taken into account in comparing the entry criteria in Hong Kong against those of other international financial centres.

Size criteria

The use of an assets size criterion for foreign branch entrants is not in general used in other major international financial centres. However, in those countries, foreign banks do not usually have the same degree of participation in the domestic retail market as they do in Hong Kong.

Minimum capital requirements

The issue of whether foreign branch banks should maintain capital is viewed differently around the world. Certain countries require branch capital while others require a form of quasi capital. Alternatively, some countries require foreign banks to incorporate locally and to meet minimum capital requirements before these institutions are allowed access to domestic deposits, while others have no such requirements. Local incorporation is therefore one option adopted in some countries.

As an example, in Australia, foreign branch banks are not permitted to accept initial deposits from non-incorporated entities/individuals of less than A$250,000. Therefore, in order to participate in the retail market, foreign banks need to set up locally incorporated subsidiaries (and therefore hold local capital). In Singapore, foreign branches are not specifically required to keep branch capital but are required to keep a set amount of head office funds (S$10m), half of which should be held in the form of specified assets. In France, Taiwan, India and Mainland China, foreign branch capital is specifically required. The different foreign branch capital requirements for a number of countries are summarised below (see Table 1.4.3):

Table 1.4.3 Foreign branch capital and related regulatory requirements in other countries

Branch capital	Quasi capital	Local incorporation	No branch capital requirements	Asset maintenance
France (FRF35million) **Taiwan** (NT$150million) **India** (Rupee2million) **Mainland China** (RMB100million)	**Singapore**: maintain *Net Head Office Funds* of not less than S$10million, of which S$5million should be in approved assets	**Brazil** **Canada** **Malaysia** **Australia**	**Hong Kong** **The Netherlands**[1] **Germany**[1] **The UK**[1] **Italy**[1] **Mexico**[1] **Spain**[1]	**The US** – capital equivalency deposits maintained at a Federal Reserve member bank. **Thailand -** maintain cash reserves and liquid assets in proportion to deposits and/or borrowings at prescribed ratios. **Japan -** a percentage of deposits taken (depending on amount) must be deposited with the Bank of Japan.

Notes: [1]These countries all have some form of deposit insurance scheme.
Source: *KPMG/Barents analysis*

Minimum capital requirements to establish a locally incorporated bank exist in all countries benchmarked. The amount of this minimum capital varies. For example, it ranges from approximately HK$19million in the Netherlands to HK$239million in Australia.

1.4.5 Views of market participants

There was a very wide range of opinions on whether foreign banks should be able to set up subsidiaries in Hong Kong with full banking licences. For example 70% of foreign branch RLBs stated that they should be allowed, while only 11% of locally incorporated licensed banks thought so.

The issue of branch capital was (as might be expected) polarised with 75% of locally incorporated banks agreeing that foreign branches should be required to hold capital in Hong Kong, though very few other respondents agreed. This issue was again raised in the interviews and a similar picture emerged. A fair assessment of local banks' views would be:

> *"everything should be on exactly the same basis, complete pari-passu, including the requirement to hold capital."*

The other entry criteria were generally not considered to be onerous or restrictive, although foreign RLBs felt that the size criteria were inflexible and did not act as a fair barrier to entry (55%). However, nearly 50% of locally incorporated banks and multi-branch foreign banks disagreed that this represents an unfair barrier to entry.

Views on more liberal licensing to allow non-banks to set up banking operations were clear, with 64% of respondents disagreeing with the introduction of more liberal licensing. Only 10% agreed and 26% had no opinion. Additionally, the forty institutions that take retail deposits were most strongly opposed to more liberal licensing, with 80% of such institutions disagreeing.

1.4.6 Future considerations and recommendations

Assets size criteria

Hong Kong has opted for a minimum assets size requirement of US$16billion of the w*hole banking group* for foreign banks, effectively blocking full participation in the banking sector by smaller foreign banks, even if they are comparatively well capitalised. The primary benefits of this approach have been that it has still allowed access by major international banks, which have contributed significantly to Hong Kong's status as an international financial centre. It is also a transparent measure that foreign financial institutions must meet in order to enter the Hong Kong market as banks. At the same time, smaller international institutions have a means of entry as RLBs or DTCs.

Entry criteria based on asset size presume that large balance sheets are automatically equated with sound and prudently managed institutions. This presumption is sometimes wrong, as indicated by the many large bank failures which have occurred in recent years as markets have opened up to competition. When wrong, the presumption is very risky to banking systems and underlying monetary stability, evident today in Japan, and apparent in the US in the 1980s. The other authorization criteria, such as adequacy of financial resources, adequacy of home supervision and requirement for adequate internal controls do however address this issue and, in licensing banks, the HKMA does ensure that new market entrants are sound and prudently managed.

We consider that the assets size criterion for foreign branches should be maintained. This criteria does not appear to have deterred any market entrants and provides a means for the HKMA to filter out smaller applicants who may not necessarily require a full banking licence. Smaller banks, which do not meet the asset size criterion, and those from countries where the adequacy of home supervision may be difficult to assess in practice, have the alternative to enter the market as RLBs or DTCs.

In addition, the current override, based on a broad consideration of Hong Kong's interests, allows the HKMA to permit broader access by smaller banks of a high quality, when this is considered beneficial to the sector as a whole. Therefore, we do not envisage any need for change in this regard.

Capital requirements for locally incorporated banks

Locally incorporated institutions' minimum capital requirements have not been updated since 1989. In this period, cumulative inflation has been approximately 95% and it would therefore be appropriate to reconsider the level of minimum capital for local authorized institutions.

In addition, the capital requirement for locally incorporated banks appears to be out of line with the minimum asset requirement. This is important because banks should maintain adequate capital to support the assets on their balance sheets (as required by the minimum CAR requirements). However, the capital-to-asset ratio of most local banks indicates that, in practice, a new local bank would need to have substantially higher initial capital in order to meet minimum CAR requirements. The assets requirements may be met by the new institution but only by holding these assets in low risk weighted categories (e.g. cash). Therefore a new bank would not be able to take on a normal market-based balance sheet structure, which could limit its operations.

We recommend that the HKMA consider increasing the minimum capital requirements to take into account inflation and to bring into line the minimum capital and minimum assets criteria for locally incorporated banks. Based on inflationary effects alone, the amount of minimum capital should be approximately HK$300million.

We would also recommend that the minimum capital requirements for RLBs and DTCs be reviewed at the same time, although this may need to be performed in the context of any changes to the three-tier system.

Foreign branch capital

Foreign branch capital or an equivalent is required by a number of countries for several reasons. However, in the context of Hong Kong, the need for a form of branch capital would appear to relate principally to the need to strengthen depositor protection. In the context of the current liquidation laws, imposing a branch capital requirement would not significantly improve the current depositor protection scheme. Additionally, it is likely that such a requirement would reduce the attractiveness of Hong Kong as an international financial centre. Further, the absence of a branch capital requirement would not be unique to Hong Kong as there are a considerable number of countries in the same situation (e.g. most European countries have no branch capital requirements). Therefore, we do not see any need for the current situation to be changed.

Time period and association with Hong Kong

There does not appear to be a significant need or desire on the part of foreign banks which are qualified to enter as fully licensed banks to change the form of entry per se. Allowing foreign banks to enter the market as locally incorporated banks (rather than branch banks) does not appear likely to have a significant impact on the attractiveness of Hong Kong to potential overseas participants. In addition, the evidence indicates that it is doubtful whether many foreign banks would choose this route in preference to branch status due to the flexibility accorded to them as a branch.

However, these criteria appear over burdensome and unnecessarily restrictive in determining the qualifications of new market entrants, such as any RLB or DTC, wishing to fully participate in the market. This has the effect of reducing the level of competition.

We recommend that the HKMA should consider reducing the time period to three years, which should be sufficient for institutions to gain a clear understanding of the local market and for the HKMA to assess management skills and systems to operate in the local banking sector[21].

The requirement to be closely associated with Hong Kong no longer appears to be relevant in view of globalisation trends, the fact that the local banking sector is already well established and it is inconsistent with the ability of a foreign bank to purchase a local bank (i.e. a foreign bank may not set up its own subsidiary but may purchase one nevertheless). We therefore recommend that the HKMA consider relaxing this criterion.

Relaxing the one-building condition in itself would provide more flexibility to new and existing foreign participants. Therefore the timing of change to these criteria should be reviewed only after the impact of relaxing the one-building condition has been fully ascertained.

Ownership

As regards the ownership criteria, we consider that this acts as a very strong control over ownership of deposit taking institutions and helps ensure that owners are fit and proper. Since non-banks are able to enter the market through joint ventures and as minority shareholders, we do not see any need for this situation to be changed.

[21] This would also imply that, those foreign banks which have operated in branch form for the same period, should also be given the option of local incorporation.

1.5 Financial disclosure

1.5.1 Background

The principal purpose of financial disclosure is to allow the forces of market discipline to work more effectively, namely shareholders and depositors can monitor the risk taking activities and performance of banks in order to enable them to make informed investment or business decisions. Other banks (and businesses) can also make more informed decisions regarding business relationships (e.g. exposure limits). Any increase in disclosure should enable more effective monitoring of risk taking activities of banks and this information should be shared among all market participants, including banks, regulators, market analysts and the general public.

The efforts made to improve banks' financial disclosure were led by the HKMA, working closely with the banking industry and the accounting profession. The results of this initiative are embodied in the *Best Practice Guide on Financial Disclosure by Authorized Institutions* with which all non-exempt authorized institutions incorporated in Hong Kong are expected to comply.

Foreign branch banks in Hong Kong, on the other hand, are not required to publish any information on their activities in Hong Kong, although they are required to have available in their branches a copy of their parent bank's accounts. These accounts are prepared and published in accordance with the accounting and regulatory standards of their home countries, which may vary considerably.

The HKMA also recognises that development of financial disclosure is a continuous process in order to ensure that it keeps up with developments of the Hong Kong banking sector. Since 1994, disclosure items have been added to the Guide to reflect developments in the market and to further enhance the quality of information provided.

1.5.2 Assessment of financial disclosure

Improved financial disclosure by local banks has resulted in the financial disclosure by banks in Hong Kong being rated as one of the best in Asia[22] and being reasonably comparable with other major international financial centres. This is a significant achievement considering financial disclosure by banks in Hong Kong was rated as one of the worst prior to 1994. As a result, Hong Kong's banking sector has a good degree of transparency, which assists the market discipline mechanisms to operate effectively.

Increased transparency is beneficial, particularly in the current economic downturn, where banks are disclosing declines in profits and business growth. Full disclosure on the quality of bank assets, funding arrangements, liquidity and capital strength helps to prevent unsubstantiated rumours from gaining credibility during times of economic hardship and market volatility. This is especially relevant in Hong Kong given the propensity for bank runs. Experiences in the region have also shown that transparency has an important role to play at times of volatility (e.g. there have been indiscriminate

[22] Source: *ING Barings - 1997*

runs on banks in Indonesia, including those that were financially sound). Good financial transparency is one of the key strengths of the Hong Kong banking sector.

However, the current requirements are only applicable to locally incorporated institutions, due primarily to the fact that branches of foreign banks are not required to prepare accounts under the Companies Ordinance. This lack of financial disclosure is not commensurate with the market position of foreign banks. For example, several of the 16 foreign banks with significant retail market participation have larger operations and balance sheets in Hong Kong than the smaller local banks. Therefore, a significant proportion of the market does not have the same degree of financial transparency as the locally incorporated banks, which may not enable the market discipline mechanism to operate effectively for the sector as a whole. It is important to note that this situation is not similar to other countries, where the domestic retail market is generally serviced by local institutions. In those countries, foreign branch banks usually do not participate to a great extent in those retail markets.

The lack of information regarding foreign banks' activities is therefore at odds with the level of market share that they hold and represents a gap in transparency of the domestic banking sector. This is also important from a level playing field aspect, as foreign banks competing in the same market as local banks, have much more information available to them concerning the activities of their competitors than is the case for local banks. This could give foreign banks an unfair competitive advantage.

1.5.3 Comparison with other international financial centres

As mentioned above, disclosure by banks in Hong Kong compares favourably with other countries in the region and is comparable with leading financial centres such as the US and UK.

Disclosure of financial information by local branches of overseas banks is now required in several countries in the region and leading financial centres, including, for example, the US, New Zealand, India, Korea, Thailand, the Philippines, Taiwan and Indonesia. Additionally, Singapore is proposing disclosure by foreign branches in the near future. The disclosure requirements in each of these countries vary. For example, some require audited balance sheets, while some require unaudited balance sheets and others require profit and loss accounts.

1.5.4 Views of market participants

The views of banks on the issues of a level playing field and an efficient market discipline mechanism are in general consistent. The results from the banking sector survey indicated that:

- 70% of all respondents believed a level playing field between local and foreign banks was important or essential for the sector; and

- 85% of respondents considered an efficient market discipline mechanism to be extremely important.

The views expressed by investment analysts (in interviews) indicated that they consider there is room for further improvements in local bank disclosures, although they acknowledge that local bank disclosures are already comparable with other international financial centres. For example, more information on the effectiveness of bank credit risk management (e.g. loan delinquencies and recoveries).

Both banks and other interested parties generally favour more disclosure by foreign branch banks operating in Hong Kong. However, they have noted the need to ensure that any local branch financial information be considered in conjunction with the financial position of the parent bank as a whole, to ensure that the local disclosure is not misinterpreted by the market.

1.5.5 Future considerations and recommendations

The HKMA has issued a consultation paper to require limited financial disclosure by foreign bank branches. We view this as an important step forward in closing the transparency gap that presently exists. An information sub-group established by the Basle Committee on Banking Supervision is also reviewing the issue of public disclosure.

The HKMA should also continue its work on reviewing and updating the disclosure requirements of all authorized institutions, to ensure that they are in line with international and local market developments. In addition, it would be appropriate for the HKMA to take an active role in promoting understanding among the general public of disclosed financial information (e.g. the difference between non-accrual loans and overdue loans).

1.6 Depositor protection

1.6.1 Background

The arguments for depositor protection is generally based on:

- views about the special role of banks;
- the propensity for individual bank runs and failures to have destabilising systemic effects; and
- the resulting social benefits to be gained from improving confidence and stabilising deposits.

In addition, there is a need for consumer protection to safeguard the deposits of ordinary bank customers, who may not have the ability to assess or monitor the riskiness of institutions with which they place their savings. Therefore, consumer protection, as an instrument of social policy, has an obvious benefit because it ensures that *innocent bystanders* do not become casualties of events beyond their control. When a bank fails, ordinary people who cannot or are not expected to know about banks' financial health would therefore be protected.

Consumer protection may either be in the form of an implicit or explicit protection. Explicit protection are schemes that are formalised with rules set out in advance on the nature and extent of protection, timing, funding and other relevant details (e.g. deposit insurance schemes). Implicit protection is generally provided at the discretion of the government and is generally more ad hoc, although there is usually an *understanding* that the government will step in to bail-out depositors and other creditors of a failed institution.

In Hong Kong, the government has taken over insolvent banks on a number of occasions, which can be construed as providing implicit protection. However, following the take-over of Overseas Trust Bank in 1986, the government clearly stated that it would only intervene in the future on a case-by-case basis, and that such intervention should not be taken for granted. Therefore, implicit protection is not assured and, in the case of BCC HK Limited, the Hong Kong government did not step in to rescue the bank and it was placed in liquidation. By providing protection to individual banks in this manner (i.e. on a discretionary basis), the government may be exposed to criticisms of discrimination or unfairness.

Explicit consumer protection can also entail certain side effects, which can have quite pronounced social costs that may outweigh the benefits. These include:

- ***Moral hazard*** – bank management might have incentives to take greater risks if depositors are protected.
- ***Adverse selection*** – depositors may also take greater risks as they can achieve a higher rate of return with no additional risk. Consequently, as the risks are capped, funds could flow to institutions which provide the highest rate of return and, as a

result, the efficiency of resource allocation in the economy and the market discipline mechanism may not operate effectively.

- ***Cost*** – consumer protection schemes involve significant cost which, ultimately, has to be borne by the consumers.

The principal benefit of explicit consumer protection is that consumers are assured of compensation in the event of a non-systemic failure of any bank. Additionally, it can raise consumer confidence which enhances the general stability of the banking sector. That is, with confidence that their deposits are protected, depositors would have less need to run on their banks even if they are worried about the banks' health.

The ability of consumer protection schemes to stabilise the market is dependent on the credibility of any such schemes and the willingness of consumers to rely on them. One important factor to establish this credibility is that depositors do not have to suffer significantly from the inconvenience of being denied access to their funds that could adversely disrupt their normal day-to-day financial needs.

Nevertheless, it should be noted that explicit deposit protection schemes do not eliminate the risk of bank runs completely. For example, experience in the US has shown that bank runs can occur even with an explicit deposit insurance scheme in place. However, considering the number of failures, the instance of bank runs was small with the most severe runs occurring with uninsured, or to a lesser extent, ill-informed depositors.

Depositor protection in Hong Kong

In Hong Kong, depositor protection is provided both implicitly, on a case-by-case basis (as evidenced by the previous interventions of the government), and explicitly, in the form of the priority payment scheme in the case of a bank failure. Under the Companies Ordinance, in the event of a bank liquidation, depositors are entitled to receive priority for their deposits up to a maximum of HK$100,000[23]. However, full recovery of customers' deposits, even up to HK$100,000, is not necessarily guaranteed as this requires sufficient assets to be available at the time of liquidation. This scheme is intended to provide a degree of consumer protection as small depositors are able to gain priority over other creditors in their claim over the assets of a failed bank. As the scheme does not provide for immediate pay-out to depositors, its ability to mitigate the risk of bank runs and the possibility of systemic risk is limited. A deposit insurance scheme was considered in 1992 but the issues regarding moral hazard and cost were major barriers that were not resolved sufficiently to justify implementation.

The preferred creditor status for small depositors in a liquidation of a bank is applicable to both local banks as well as foreign branch banks. The liquidation of a locally incorporated bank (as evidenced by BCC HK) follows the provisions of the Companies Ordinance and priority claims would be paid out as assets are realised. The remaining

[23] This scheme was introduced in 1995, following the liquidation of BCC HK Ltd, to cover the deposits of small depositors in banks. The scheme does not cover the deposits of DTCs or RLBs.

deposits would rank equally with other creditors. The liquidation process for a foreign branch bank is more complicated and in general would be as follows:

- The HKMA would appoint a manager (under the Banking Ordinance) to the Hong Kong branch (either prior to or when an overseas incorporated bank is put into liquidation in its home country) who would try to conserve the assets of the branch prior to the appointment of a provisional liquidator.

- A Hong Kong provisional liquidator would be appointed for the branch by the court[24], in accordance with sections 193 or 194 of the Companies Ordinance.

- The provisional liquidator would first apply the assets of the branch[25] for the payment of priority creditors set out under Section 265 of the Companies Ordinance. These include employees (subject to certain limits) and all depositors of the bank "up to an amount of HK$100,000 for each depositor."

- After payment of priority creditors (including the expenses of the liquidation) in Hong Kong, any remaining surplus assets would be applied *pari passu* for the benefit of all unsecured creditors (world-wide) irrespective of where these debts arose.

This form of liquidation is generally referred to as the *ancillary liquidation* to the principal liquidation being conducted of the foreign bank in its country of incorporation. The key issue here is that the provisional liquidator of the Hong Kong branch may in practice only apply the Hong Kong assets to settle priority claims. However, at present, there is no requirement for banks to maintain sufficient assets in Hong Kong to meet these priority claims. Therefore the amount of assets available to meet priority claims is not automatically assured (even if their assets are not impaired) and is an issue of particular relevance to foreign branch banks given the existing liquidation arrangements.

1.6.2 Assessment of depositor protection

We have noted that local banks generally maintain high levels of liquidity, partly in response to the risk of bank runs. This has a carrying or opportunity cost for banks. Further, the deposit interest paid by banks that may be more vulnerable to runs will need to factor in a bank run premium to reflect this risk, especially for their time deposits.

The presence of banks that are perceived to be more vulnerable to runs also has sector-level liquidity implications. All banks tend to maintain higher levels of liquidity (even if they are sound) because depositors may not properly discriminate between institutions during a run, especially during difficult economic times where all banks are experiencing, for example, increased credit problems.

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24 A foreign branch bank is classified as a Part XI overseas company under section 333 of the Companies Ordinance and statutory power to wind up such a company is given by section 326 and 327, which excludes a voluntary winding up. An application for the winding up would need to be submitted to the court by any creditor under section 179 or by the Financial Secretary upon the direction of the Chief Executive in Council.

25 In practice the ability of the provisional liquidator to gain control of any overseas assets of the branch is limited, as a claim on these assets will probably be made by the home country liquidator. Therefore, the provisional liquidator will normally look to assets located in Hong Kong to satisfy payment of priority creditors.

As noted in the government consultation paper on deposit protection schemes:

> *"Hong Kong has had considerable experience of unexpected but severe runs on its banks; the latest occurred in spite of significant improvements to the supervisory control and general health of the banking system. Some of these runs had been justified by particular circumstances but others had been based on groundless rumours. This had added unhelpful volatility to the banking system."*

Although the priority claims scheme was put in place following the government's consultation paper, the bank run that occurred in November 1997 suggests that there may still be a lack of confidence in the current environment. This situation indicates a strong need for an enhanced depositor protection scheme to improve consumer confidence and, in doing so, enhance the general stability of the sector.

The current priority payment scheme has not completely addressed this aspect and, therefore, there appears to be a clear need for changes to be made. This would also help bring Hong Kong into line with other international financial centres. Additionally, the implementation of a new or revised explicit scheme would reduce the moral pressure on the government to rescue failed institutions, where this was thought appropriate on systemic grounds.

Any depositor protection scheme, aimed at improving consumer confidence and reducing the propensity of depositors to run on their bank, must have the one essential element of prompt and immediate payment to small depositors. This is absent in the current arrangement. Small depositors are arguably the most vulnerable when a bank gets into difficulties. Often lacking other financial assets and/or access to credit, they are likely to suffer more, at least in the short run, from having their money tied up or lost in a troubled bank. Even a temporary loss of access to their money could be devastating. For example, they could risk defaulting on their loan commitments and thereby worsening their financial plight. Some type of arrangement to improve the immediacy of payment would therefore alleviate the propensity of depositors' to run on their banks.

1.6.3 Views of market participants

The views from banks on the need for deposit insurance to help address stability were mixed, with the smaller institutions generally in favour of deposit insurance due to its potential stabilising effects. Larger institutions were against such a scheme for reasons of cost and moral hazard. This is illustrated by survey responses where all large banks rated deposit insurance as unimportant or irrelevant, while eight medium and smaller banks rated it as important or essential. Another ten banks had no opinion.

This issue of deposit insurance was also discussed in interviews and a similar picture emerged. Small and medium-sized banks were generally in favour, while large institutions were not. Cost and moral hazard were again the most common reasons cited by those institutions not in favour.

One interesting observation was that deposit insurance may also reduce the awareness of depositors and their responsibility to discriminate between good and bad banks (i.e. effective market discipline) and therefore some banks considered it important to educate depositors in this regard.

1.6.4 Comparison with other international financial centres

Among the European Union ("EU") and G-10 countries, the US was the first to adopt an explicit deposit insurance fund in 1933. This was in response to the Great Depression and was essentially an attempt by the Roosevelt administration to reverse the loss of confidence in the safekeeping capacity of banks, while also attempting to jump-start the economy. In other countries and regions, implicit deposit insurance became an operating norm in the post-World War II environment.

Germany, Finland and Canada were next to adopt explicit guarantee or insurance systems, introducing their systems in 1966-67. Japan followed in 1971, followed by Belgium and Sweden in 1974. The momentum in Europe increased in the late 1970s with the enactment of the First Banking Directive in 1977. This reduced barriers with respect to the provision of banking services across member states of the European Economic Community ("EEC") and established uniform rules for their supervision, along with the treatment of non-EEC banks.

The Second Banking Directive, adopted in 1994, provided the framework for universal banking in the EU, including the general framework for deposit guarantee schemes. By 1 July 1995, all EU members were expected to have deposit guarantee schemes that met the minimum conditions set out in the Second Banking Directive regarding amount and types of coverage, including eligible deposits, accounts and bank branches. More recently, countries in Europe, which are aspiring to join the EU (e.g. Hungary, Poland, Slovenia and the Czech Republic), have introduced deposit insurance schemes.

In Asia, the Philippines, India and Taiwan have also developed depositor protection schemes, although the extent of coverage for some of these schemes is fairly limited. Singapore has no deposit insurance scheme but all banks are required to keep certain reserves calculated in relation to their deposit base (either in cash or specified assets) with the Monetary Authority of Singapore.

1.6.5 Future considerations

Previously in Hong Kong, depositors have not lost their savings due principally to the government's willingness to intervene[26] (i.e. implicit protection), rescue operations arranged in conjunction with certain other banks and, in the case of BCC HK Limited[27], recovery of depositors money has been via the liquidation process.

As the deposit base of banks grows, the cost of intervention, and consequently the burden on the government, will only increase in the future. Even in the event of a failure of a small bank, the sums involved are likely to be substantial, running into

[26] For example, the government intervened in the case of Hang Lung Bank in 1983 and Overseas Trust Bank in 1985.
[27] In the case of BCC HK Limited, depositors have been paid out to-date 100% of their deposits.

billions of Hong Kong dollars. Coupled with the fact that the existing explicit scheme (i.e. priority claims) does not appear to have sufficiently raised the *crisis of confidence* threshold to avoid bank runs, there is a strong case for enhancements to be made. A scheme developed to remove implicit protection provided by the government and designed to increase the crisis of confidence threshold would appear to be a logical step forward.

Recently, the G22 Working Party on Strengthening Financial Systems has recommended that each country put in place explicit depositor protection arrangements, with a clear specification of the nature of protection provided and the means for defraying the costs. The Working Party is also encouraging the Basle Committee on Banking Supervision to develop guidelines for deposit insurance, with particular emphasis on measures to reduce moral hazard. They also note that there are alternative forms of depositor protection schemes (apart from deposit insurance) which may be considered. These include:

- The priority claims procedures in Argentina and Switzerland, which ensure depositors have a priority claim on assets and that the disbursal of funds from the disposal of assets will be fast.

- Loss-sharing conventions in lieu of deposit insurance. This approach does not require the build up of an insurance fund, thereby reducing the up-front direct costs of the scheme and providing an incentive for potential contributors to monitor vulnerable institutions.

There is no clear consensus between market participants in Hong Kong as to whether a funded deposit insurance scheme would be appropriate. In particular, the structure of the banking sector (i.e. the disparity between a few large banks and the rest) gives rise to divergent views as to the desirability of such a scheme. These views are principally polarised, with the larger banks considering such a scheme to be a cross-subsidy to smaller banks and that it would create moral hazard issues. Smaller banks, on the other hand, consider such a scheme to be beneficial to the sector.

In contrast to the situation in Hong Kong, a funded deposit insurance scheme is an option that has been taken up by the majority of developed financial centres. For example, in the EU, all member states are required to have an insurance scheme in place and there is a clear trend towards this form of depositor protection. Therefore, the possibility of some form of deposit insurance in Hong Kong should not be ruled out.

One alternative to deposit insurance would be to enhance the existing priority payment scheme by introducing a mechanism whereby depositors would be able to get immediate pay out for part of their deposits (up to a set amount), rather than having to wait for the full process of liquidation[28].

This has two distinct advantages over a funded deposit insurance scheme:

[28] There would have to be some form of indemnity or guarantee provided to the liquidator by the government in the event of payments wrongly made. The rights of other preferential creditors in a liquidation, including the expenses and remuneration of the liquidator as determined under the Companies Ordinance, would also have to be considered.

- the expected costs of setting up and running a deposit insurance scheme would be avoided, although there would be some set-up costs required[29]; and

- there is no implication that large banks would be subsidising smaller banks.

The principal drawback of this scheme is that the funding required to achieve immediate pay-out would probably need to come from the government. The government would need to be prepared to take on the priority claims and, with it, the liquidation risk. Requiring all banks to keep a certain percentage of their priority claims deposits under an asset maintenance arrangement (e.g. all banks would keep a reserve with the HKMA of Exchange Fund Bills) could provide a source of funds for such a pay-out and may mitigate the risk of loss to the government. Conceptually, the opportunity cost (e.g. in terms of flexibility or a lower interest rate) of holding this asset maintenance arrangement could be viewed as the *premium* that banks would have to pay.

Additionally, the immediate pay out for depositors could be limited to a proportion of their priority deposits. The remainder of their priority deposits would still be covered as priority creditors. In this way, the government and the depositors both share the burden of liquidation risk. It should be noted that this was, in effect, the actual course of action taken in the BCC HK Limited liquidation. In that case, the liquidator was requested to make an interim relief payment to all depositors (in respect of unencumbered net balances) under a guarantee from the government to cover the Joint Special Managers (i.e. the liquidators) against any payments wrongly made.

Recommendations

We consider that an enhanced form of explicit depositor protection, with the aim of improving consumer confidence and thus the general stability of the sector, would be beneficial in Hong Kong and would bring Hong Kong into line with international practices. However, before any such scheme can be implemented, it would have to first address the concerns (e.g. moral hazard and cross-subsidisation) of all participants involved. Therefore, we recommend that the HKMA (in conjunction with the government) consider the alternatives available (e.g. either deposit insurance or enhancing the priority claims scheme), by way of a more detailed study on the various forms of explicit depositor protection.

However, irrespective of whether a new or revised depositor protection scheme will be introduced, the HKMA should review whether it would be feasible to set an asset maintenance requirement for foreign branch banks. The need for this asset maintenance requirement would be to improve the effectiveness of the existing priority payment scheme as a measure of depositor protection. Such a requirement would likely be in the form of a set amount of specified assets to be held in Hong Kong, sufficient to meet priority claims under the Companies Ordinance. Therefore, the HKMA may also wish to establish a reporting system to monitor the extent to which assets held in Hong Kong cover priority claims deposits.

[29] In order to provide prompt payment on liquidation, the liquidator would need the ability to download and analyse banks' customer deposit data and would therefore need to ensure that all banks can provide this data at any time in an appropriate format.

Implications of change

As part of the detailed study into explicit depositor protection, the following issues should be considered:

To minimise moral hazard and adverse selection:

- consideration should be given to calculating premiums based on relative risk in order to reduce moral hazard and to avoid implicit cross-subsidies among banks;

- the amount of protection and who is protected should be carefully selected to avoid impairing market discipline and efficient sector resource allocation;

- adequate financial disclosure of meaningful information should be available to provide management, the market and regulators with the data needed to monitor and contain risk in support of depositor protection; and

- education to ensure the population understands the rights, obligations and protection limits associated with explicit deposit protection schemes.

To ensure the scheme is operated in an efficient manner:

- the source of funding for the scheme must be clearly stated and the assumption of implicit support from the government should be dispelled;

- there must be a system to allow for a rapid pay out of protected deposits (this may require all banks to maintain a standardised set of data that can be made available within a short period of time); and

- there must be adequate institution-specific and industry risk analyses to ensure that funding levels for the scheme are adequate for coverage.

1.7 Lender of last resort

1.7.1 Background

Governments and central banks provide three broad types of funding or liquidity support to banks and it is important to distinguish between these in a review of the lender of last resort function. These are:

- the provision of intra-day or overnight liquidity to alleviate short-term cash flow shortages (e.g. payment system requirements);
- the lender of last resort is a source of liquidity support by the central bank which may be provided to banks in difficulties on a short-term basis and is usually only provided when there is a potential systemic risk; and
- equity or capital support may be provided to failed or insolvent institutions for reasons of public interest. This is usually a government decision.

In addition, central banks may also provide leadership in arranging rescue operations to help failed institutions (e.g. the Bank of England in the case of Barings and more recently, the Federal Reserve in the case of the Long-Term Capital Management hedge fund). This is again usually performed to reduce the risk of knock-on effects to the rest of the banking system.

The focus of this section is the role of lender of last resort, although it is noted that the HKMA also provides overnight liquidity through the operation of the discount window.

The official lender of last resort in Hong Kong is the HKMA. The means available for this purpose are provided by the Exchange Fund[30], which the HKMA manages on behalf of the Financial Secretary. This was in fact the situation even prior to the establishment of the HKMA, where the Exchange Fund, in connection with the powers and duties of the Commissioner of Banking and the Financial Secretary, together formed the lender of last resort. However, with the advent of the HKMA, there is now more of an institutional focus to the lender of last resort function.

The HKMA has general discretion on whether to provide any assistance as the lender of last resort. However, some broad principles have been set out concerning the circumstances in which the HKMA may provide such assistance[31]. These are:

- Whether the failure of the individual bank would, either by itself or through the creation of a domino effect, damage the stability of the exchange rate or the monetary or financial systems.
- The assistance of the lender of last resort would only be provided after the bank has exhausted its own liquidity resources and commercial sources of finance.

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30 Following the Exchange Fund (Amendment) Ordinance 1992, which provided for the establishment of the HKMA, it is now clear that the Exchange Fund can also be used to maintain the stability and integrity of the monetary and financial systems of Hong Kong, except where that would conflict with the primary purpose of maintaining exchange rate stability.

31 Source: *HKMA Quarterly Bulletin April 1994*

- The liquidity support is only provided to institutions which are solvent and then only on the basis of security and at rates which are commercial, if not penal.

The government has, in the past, exercised its discretion to organise rescues by soliciting assistance from other banks. Alternatively, it has taken over ailing banks (e.g. Overseas Trust Bank and Hang Lung Bank in 1986) using resources from the Exchange Fund. In fact, in the consultation paper[32] on deposit insurance in 1992, it was stated:

> *"In the case of Hong Kong, the government has made it clear that liquidity support for solvent banks would be forthcoming from the Exchange Fund but that there can be no assurance that an insolvent bank would necessarily be rescued. Each case would have to be considered on its merits in the light of the implications for the stability of the banking system as a whole."*

During the course of the most recent bank run in 1997, the Financial Secretary also announced that support from the Exchange Fund would be provided if necessary (although it was not required in that case).

1.7.2 Assessment of the lender of last resort

Although the HKMA has articulated its position regarding the role of lender of last resort, there is no official policy document setting this out. Additionally, there is still a substantial level of uncertainty in the market in this respect. There is a large number of participants in the sector who are either unaware that there is actually a lender of last resort or are unclear as to the conditions under which the HKMA would provide this assistance. This uncertainty may be associated with certain developments that have occurred in the past. In particular:

- The reasons behind the government's decisions to act as the lender of last resort to provide assistance to certain institutions but not others (e.g. BCC HK[33]) and the basis on which the government organised rescues in conjunction with other banks, instead of using the resources of the Exchange Fund were not always made clear.

- Although the HKMA has assumed the role as lender of last resort, it has never actually exercised this role since its establishment in 1993.

- The resources available to the lender of last resort come from the Exchange Fund. Although the HKMA manages the Exchange Fund, the general perception is unclear as to whether it is the HKMA or the government that actually has the role of lender of last resort. This was especially noticeable in the incident of a bank run in 1997, where it was the government (due to the fact it is the Financial Secretary who controls the Exchange Fund) that announced the support of the Exchange Fund.

[32] The government consultation paper *"Deposit Protection Scheme"* – Monetary Affair Branch Government Secretariat February 1992.

[33] This reflected the *discretionary* element as the BCC HK case was not regarded as *systemic* in nature.

1.7.3 *Comparison with other international financial centres*

The discussions on lender of last resort generally divide the approaches to this role into two different categories – convenience and necessity[34]. The European model has generally followed the convenience framework, which is characterised by the fact that the power to provide assistance is generally discretionary. In addition, these central banks all have measures in place to provide liquidity to the market, usually in conjunction with mechanisms associated with the issue and trading of government papers.

The US model (the necessity approach) on the other hand, follows a more rules-based approach in that liquidity support (on the security of sound assets) is only given to ensure that there is sufficient aggregate liquidity in the marketplace to mitigate systemic problems. In this case, particular banks may fail but that is of little concern as long as aggregate liquidity is maintained. Under this approach, the discount window forms an integral part of the lender of last resort. For example, the Federal Reserve provides three basic types of discount window credit as follows:

- adjustment credit (to help institutions meet short term liquidity needs);
- seasonal credit (to assist smaller institutions to manage liquidity needs that arise from regular seasonal swings in loans and deposits (e.g. agricultural banks)); and
- extended credit (which may be provided to institutions experiencing longer-term liquidity needs which result from exceptional circumstances).

The terms of access to extended credit are similar to the broad terms set out above for the HKMA to act as lender of last resort. That is, the borrower must:

- make full use of available alternative funds; and
- have plans in place to eliminate its liquidity problem (e.g. the Bank of New England used the discount window facility for several months but reduced its borrowings as it unwound transactions and sold assets).

It should be noted that with the introduction of the Federal Deposit Insurance Corporation Improvement Act ("FDICIA") in 1991, there are now severe restrictions on depositories with weak capital conditions to access the Federal Reserve's discount window. Additionally, since December 1993, the FDICIA has limited the availability of Federal Reserve credit for undercapitalised and critically undercapitalised institutions. The FDICIA stipulates that the Federal Reserve may not lend to an undercapitalised institution for more than 60 days in any 120-day period without incurring a potential liability to the FDIC, unless the exceptions to this rule are met. The FDICIA also states that the Federal Reserve may not lend to a critically undercapitalised institution for more than five days beyond the date on which it became critically undercapitalised.

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[34] Source: *Working Paper 8805 – "Lessons of the past and prospects for the future in lender of last resort theory" by Walker F. Todd, Federal Reserve Bank of Cleveland*

The basic discount rate (set by the Federal Reserve for monetary policy purposes) is applied to adjustment credits. Separate market related rates are applied for seasonal and extended credits. The rate for extended credits is always 50 basis points above the rates charged for seasonal credits for loans greater than 30 days.

1.7.4 Views of market participants

The lender of last resort was considered an important or essential element for a successful banking sector by 70% of the respondents to the banking sector survey. However, the views obtained from banks on this issue showed that there was quite a high degree of misunderstanding among bankers on whether the HKMA is the lender of last resort and what this role involves.

A large number of institutions interviewed also held the perception that the Liquidity Adjustment Facility (now replaced by the discount window) was the means by which the HKMA would exercise its role as lender of last resort.

All those interviewed agreed that the lender of last resort should be the HKMA.

1.7.5 Future considerations

The model of lender of last resort used in Hong Kong is akin to the European model, in that there is a discretionary power available to the HKMA to provide this assistance. The principal disadvantage of this discretionary approach, compared to a rules-based approach, is that advances for liquidity assistance and advances for solvency or capital support may become blurred, because the exercise of this power may not be transparent.

The market uncertainty in relation to the issue of lender of last resort calls for a clarification by the HKMA on its policy in this regard. For example, in the South China Morning Post on 9 September 1998:

> *"The HKMA's seven point package included the replacement of the Liquidity Adjustment Facility with a discount window, effectively removing the HKMA as a lender of last resort"*

Recommendations

In view of the recent introduction of a number of liquidity measures, including the discount window, and the market uncertainty concerning the role of lender of last resort, we consider that it would be appropriate for the HKMA to take steps to reassess and clarify its role in this regard. It would be appropriate for the HKMA to formalise its policy in this area and to explain this policy, especially to market participants.

1.8 Interest Rate Rules

1.8.1 Background

In 1964, an agreement on the maximum rates of interest that may be offered on HK$ deposits was concluded under the auspices of the Exchange Banks Association ("EBA"). The primary purpose of the agreement was to stop unhealthy and cut-throat competition for deposits. Under this agreement, maximum interest rates were set from time-to-time. However, not all EBA members were party to this agreement and there was no penalty for breaches.

In January 1981, the HKAB was established as a statutory body under the Hong Kong Association of Banks Ordinance and the IRRs were formulated to cover the maximum rates of interest payable on current accounts and certain savings and fixed deposit accounts. This provided statutory backing for the IRRs.

It should be noted that the IRRs have never been comprehensive and price competition among banks was allowed in the following areas:

- licensed banks were free to quote discretionary rates on:
  - deposits for any period in excess of 15-months;
  - deposits of $500,000 or more; and
  - foreign currency deposits.
- transactions between authorized institutions; and
- money market instruments.

It was also possible for consumers to circumvent the rules to a certain extent using swap deposits[35]. In fact, these deposits were quite popular prior to deregulation in 1994 and at that time accounted for approximately HK$104billion of deposits in total.

Additionally, RLBs and DTCs (who are not members of HKAB) are not subject to these rules. Therefore they are free to quote any rate for deposits taken for any period on amounts over HK$500,000 (for RLBs) and for amounts over HK$100,000 and over three months original tenor (for DTCs).

1.8.2 Original policy objectives

In 1980, the then Financial Secretary set out the reasons for the government's support for providing statutory backing for the IRRs:

> *"For two reasons, however, it is important that the operation of the interest rate agreement should be strengthened at this time.*

[35] A swap deposit is where the bank accepts HK$ from a depositor, then swaps this into a foreign currency (usually US$), pays interest on the foreign currency deposit and then swaps the foreign currency deposit principle (and interest) back into HK$ at maturity, at a predetermined rate. Consequently, the interest rate paid to the depositor approximates a deregulated HK$ rate.

The first reason is that the agreement protects the smaller locally-owned and incorporated banks from a degree of competition which they are not equipped to meet. I believe that these banks perform a valuable role in our economy and I am not prepared to see them fail to maintain their deposit base.

The second reason for wishing to strengthen the agreement is that it forms the only part of the spectrum of interest rates in Hong Kong over which the financial secretary can at present exercise any influence. In present day circumstances, it is important that, at some point in the process of determining interest rates, the wider public interest is taken into account, as well as narrower market factors. In the absence here in Hong Kong, for valid operational reasons, of some form of centrally determined discount rate, and in the absence of any means whereby market interest rates can be directly influenced, deposit rates set under the interest rate agreement have perforce to play an important role in the management of our monetary affairs."

1.8.3 Partial deregulation

The Consumer Council in its report "Are Hong Kong Depositors Fairly Treated?"[36] recommended that the interest rate caps on time, savings and demand deposits be removed. The HKMA's response to this report was as follows:

"We endorse the principle that there should be more competition in retail interest rates as it would encourage product innovation and greater efficiency. This is also in line with our conviction about the free market philosophy and the practice of it. What is equally important is the need to strike the right balance between two different, although not mutually exclusive objectives, i.e. to encourage more competition vis-à-vis the need to maintain stability in the monetary and banking systems."

Following this, partial deregulation of the IRRs took place in two phases:

- ***Phase 1 (1 October 1994)* –** removal of the interest rate cap on time deposits fixed for more than one month; and

- ***Phase 2 (3 January 1995)* –** removal of the interest rate cap on deposits fixed for more than seven days up to one month.

It was intended to relax further the remaining interest caps on short-term time deposits, and seven day time deposits were deregulated in November 1995. The removal of the interest rate caps on time deposits fixed for more than 24 hours and up to six days, and on 24-hour deposits was postponed. This was considered prudent following increased volatility in the market as a result of the Mexican crisis in early 1995, and the impending change of sovereignty.

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36 A summary and conclusion prepared by the Consumer Council Steering Group on Financial Services based on the consultants report "An Evaluation of the Banking Policies and Practices in Hong Kong – focusing on their impacts on consumers", 28 February 1994.

Although the Consumer Council also proposed to release the interest rate cap on current and savings accounts, it was decided that these rules should continue for the time being. The HKMA's comments in this regard were as follows:

> *"The additional steps proposed by the Consumer Council in respect of demand and savings deposits could have much more serious consequences because of the size of these deposits. Before deciding to proceed with these measures, it would be necessary to review carefully the impact of the removal of the interest rate cap on time deposits. It is therefore premature to make a commitment to any further changes in the IRR."*

The effect of this deregulation on consumer choice is summarised by the following Table 1.8.1:

Table 1.8.1 Effect of deregulation on HK$ deposits accepted by banks

	Current accounts	Savings accounts	Up to 6-days	7-days up to 1-month	1-month up to 15-months	Over 15-months
HK$500,000 or more	IRRs regulated deposits	**Non-regulated**				
Up to HK$499,999	**IRRs regulated deposits**			**Phase 2**	**Phase 1**	Non-regulated

Note: Consumers could always place deposits of HK$100,000 or more with DTCs for any maturity of 3-months or more at competitive interest rates since DTCs are not subject to the IRRs.
Source : *KPMG/Barents analysis*

1.8.4 The impact of partial deregulation

Following partial deregulation, the HKMA has been monitoring the impact that this has had on the market. A report[37] prepared by the HKMA in August 1995 reviewed the impact of the first two phases of interest rate deregulation on deposit movements, interest rates, banks funding costs and profitability. The principal conclusions of the report were that:

- deregulated time deposits increased significantly during the first nine months following deregulation (October 1994 to June 1995);
- following sharp fluctuations in January 1995, deposit movements between types of deposits (i.e. between different maturities or from swap deposits to deregulated HK$ deposits) stabilised from February to June 1995;
- most of the 40 banks included in the survey maintained their market share in HK$ deposits;
- interest rates on non-regulated time deposits moved closely in line with the interbank rate (HIBOR);
- the effect of deregulation on banks' interest expense was not significant, but might become so if competition for HK$ deposits intensified; and

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[37] The report surveyed the deposit structure and interest rates offered by the 40 active deposit taking banks.

- the net interest margin of banks surveyed dropped only slightly, which suggested that deregulation did not have a significant impact on profitability.

It was noted, however, that these results should be viewed in the context of the less competitive environment for HK$ deposits in the first half of 1995. We have reassessed these conclusions in the context of the period from June 1995 to June 1998, in terms of HK$ deposit growth and volatility, interest rate volatility, net interest margins and profitability.

Deposit growth

The trend that the HKMA had noted in its report regarding the rapid growth of deregulated time deposits has continued. Growth over the period from September 1994 to June 1998 was 950%, or HK$210billion. In contrast, deposits that had never been subject to the IRRs (i.e. principally those of HK$500,000 or more) grew at a much slower rate (65%) over the same period. Those deposits still covered by the IRRs (i.e. current accounts, savings accounts and short-term time deposits less than 7-days) have increased slightly (4%), but at a much slower rate relative to the overall growth of the deposit base (61%) over the period. Swap deposits have continued to decrease since the HKMA review in 1995, registering a drop of HK$27billion (44%) between June 1995 and June 1998. IRR deposits at present account for HK$387billion (approximately 27% of total HK$ deposits for these institutions), compared to HK$372billion (42% of total HK$ deposits) in September 1994 (see Table 1.8.2):

Table 1.8.2 Growth of HK$ deposits for 40 surveyed authorized institutions

	Sept 1994 HK$m	June 1995 HK$m	June 1998 HK$m	% change to June 1995	% change to June 1998
Current accounts	92,184	86,489	79,870	-6%	-13%
Savings accounts	279,329	274,899	305,919	-2%	10%
Other IRR accounts	741	784	1,041	6%	40%
Total IRRs deposits	***372,254***	***362,172***	***386,830***	***-3%***	***4%***
Deregulated time deposits	24,723	105,782	234,812	428%	950%
Swap deposits	101,439	62,741	35,177	-38%	-65%
Other non-regulated deposits	389,471	456,127	808,716	6%	65%
Total non-regulated deposits	***515,633***	***624,650***	***1,043,528***	***21%***	***102%***
Total HK$ deposits	**887,887**	**986,822**	**1,430,358**	**11%**	**61%**

Source : *HKMA survey of 40 authorized institutions*

Deposit volatility

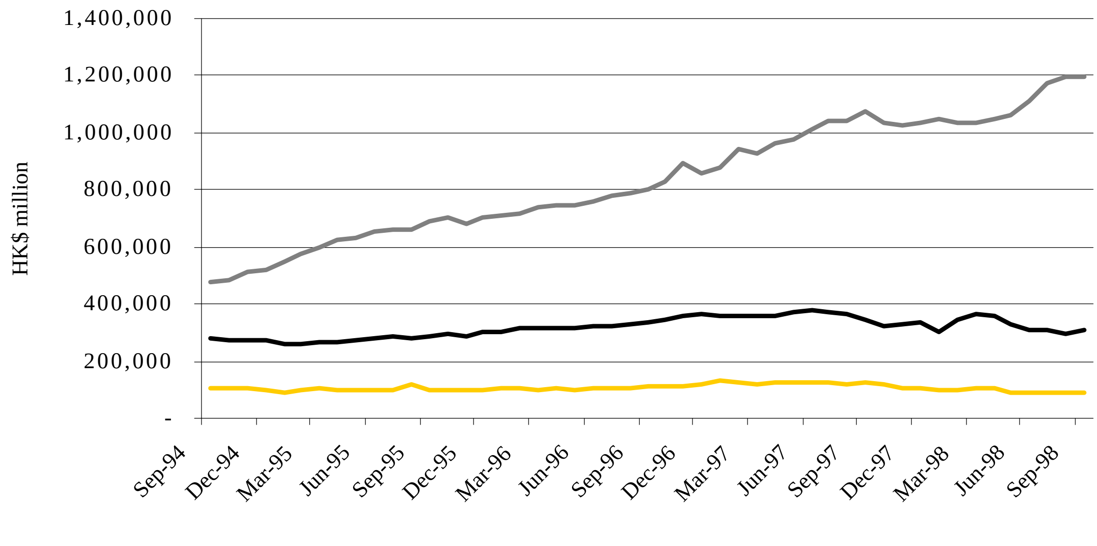
Deposit volatility can be assessed through three principal measures:

- deposit movements between different maturities of deposits (i.e. change in the term structure of the deposit base);
- deposit movements between banks; and
- deposit movements between currencies (i.e. HK$ and foreign currencies).

Movements between maturities

Deposit movements (between different maturities of HK$ deposits) continued to remain relatively stable until September 1997, the start of the Asian crisis. During this period, all types of deposits grew but time deposits grew at a faster rate than savings accounts or demand deposits (principally current accounts). Since then, there has been a shift of deposits from savings and demand deposits into time deposits. For example, the level of savings accounts grew steadily from January 1995, reaching a peak total of HK$381billion in June 1997. Since then, savings balances have decreased in a volatile manner, by HK$71billion to HK$310billion at the end of September 1998. Demand deposits show a similar picture, reaching a total balance of HK$128billion in July 1997 but decreasing by HK$39billion to HK$89billion as at the end of September 1998. Conversely, time deposits have increased in the period from July 1997 by HK$152billion (see Chart 1.8.1). This has reduced the stability of the deposit base as deposits have moved into more interest sensitive and mobile deposits (time deposits are typically more mobile between banks than savings accounts).

Chart 1.8.1 Customer deposits by type (HK$)



Source: *HKMA Monthly Statistical Bulletin*

Mobility of deposits between banks

Based on the survey of deposits taken by the 40 main deposit-taking banks, there has not been any significant change to the market share held by individual banks since June 1995. However, this does not necessarily imply that deposits are less mobile because market share does not necessarily capture the dynamics of deposit movements between banks. It only indicates that banks have been able to maintain market share, which could have been the result of competing aggressively to attract deposits to replace those that have been lost.

In fact, in interviews with banks, many indicated that they have experienced significant deposit mobility and have needed to increase interest rates substantially to attract new deposits to maintain market share. This deposit mobility has been most pronounced in the market for larger deposits (i.e. over HK$500,000) and this has been demonstrated by the substantial premium over HIBOR (sometimes 2% or more) that banks have been prepared to pay in order to attract or retain deposits. Preferential rates have also been offered on smaller deposits, although to a lesser extent. This competition has come from all banks irrespective of size, although it is the smaller banks that have experienced the most strain.

HK$ versus foreign currency deposits

Prior to partial deregulation of the IRRs, foreign currency deposits represented approximately 48% of total deposits and were reasonably evenly divided between US$ deposits and other foreign currency deposits. This position had not changed up to June 1995. However, since then, although foreign currency deposits have continued to grow, they have decreased relative to HK$ deposits, and by June 1998 their share had dropped to 43% of total deposits (see Table 1.8.3):

Table 1.8.3 Growth of foreign currency deposits

	Sept 1994 HK$m	June 1995 HK$m	Sept 1998 HK$m	% change to June 1995	% change to June 1998
US$ deposits	475,328	504,671	729,779	6.2%	53.5%
Other foreign currency deposits	417,031	502,925	507,166	20.6%	21.6%
Total foreign currency deposits	892,359	1,007,596	1,236,945	12.9%	38.6%
Total HK$ deposits	983,724	1,108,159	1,641,444	12.6%	66.9%
Foreign currency deposits as a % of total deposits	48%	48%	43%	-	-

Source : *HKMA Monthly Statistical Bulletins*

This increase in the proportion of HK$ deposits relative to total deposits has occurred over the whole period, as the HK$ deposit base has grown. However, in the period since September 1997, total HK$ deposits (HK$1,563billion as at the end of September

1997) decreased by 6% in the period to January 1998, but have been growing again since then and, at the end of September 1998, totalled HK$1,607billion.

The picture regarding foreign currency deposits is not as clear. Although in this period, US$ deposits increased reasonably steadily up to the start of the Asian crisis, since then, their growth has accelerated, while other foreign currency deposits have decreased. For example, in the period from September 1997 to January 1998, HK$ deposits decreased by HK$98billion, whereas US$ deposits increased by HK$102.7billion. Therefore, it appears that depositors shifted HK$ deposits into US$ deposits. However, in the period since then up to September 1998, HK$ deposits increased by HK$142billion and US$ deposits increased by HK$94.8billion, while deposits in other foreign currencies have decreased by HK$24.2billion. This decrease in other foreign currency deposits reflects declines in the value of currencies in relation to the HK$ over this period (e.g. the Japanese Yen), as well as deposit movements.

The overall movement of deposits between currencies has had an impact (from time-to-time) on the availability of HK$ deposits, further intensifying competition during times of HK$ shortages. This movement, to an extent, reflects the changing levels of confidence in the HK$/US$ peg and interest rate differentials between US$ and HK$.

Impact on deposit volatility

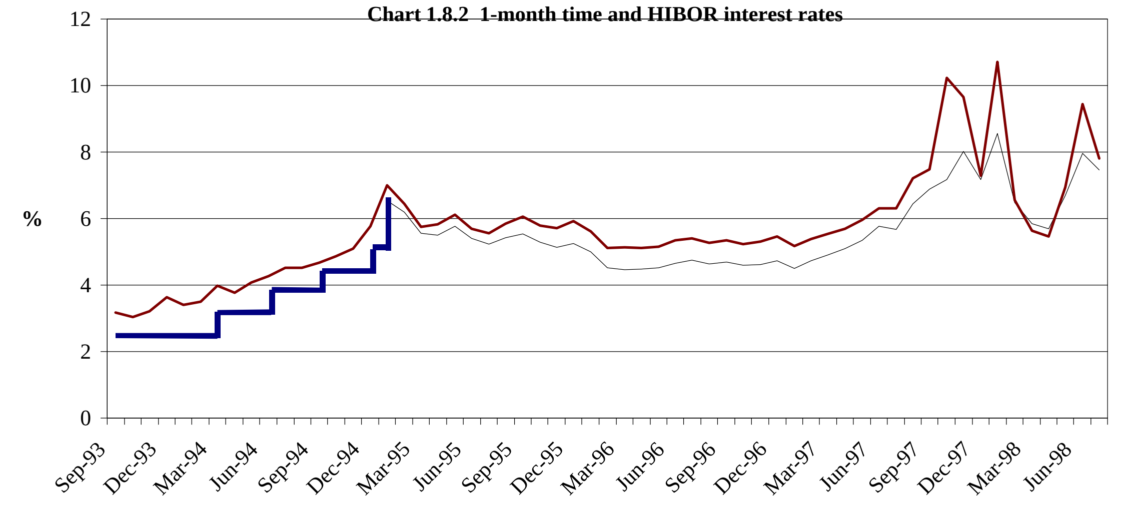
Deregulation has had an impact on volatility in that it increases the potential for movement of deposits between different maturities, different banks and different currencies. This potential is often realised at times of uncertainty as has been evidenced during the Asian crisis. In contrast, prior to the Asian crisis, there had been a relatively long period of stability in banks' deposit bases, even though deposits had been deregulated. While the majority of deposit volatility (since the Asian crisis began) has occurred in deposits that were never subject to the IRRs (i.e. over HK$500,000), deregulated deposits have also become more volatile.

The main conclusion that can be drawn is that the extent of deposit volatility and its relationship with deregulation (i.e. allowing free competition) involves complex interactions between a number of wide-ranging variables (e.g. interest rates, amount of competition in the sector and levels of depositor uncertainty).

Interest rate volatility

Following partial deregulation of the IRRs, banks adjusted their interest rates on the newly deregulated accounts to closely match HIBOR rates. This has continued to be the situation even during the Asian crisis, although the difference between the rates quoted for deregulated deposits and HIBOR has at times increased and the volatility of all HIBOR-based deposit interest rates has increased substantially.

As an example, prior to deregulation in January 1995, the 1-month time deposit rate increased in stages as HIBOR increased but with a time lag. At deregulation, the rate spiked to closely match HIBOR. Thereafter, the 1-month time deposit rate has settled to closely track below the 1-month HIBOR at a spread of around 0.75% until the start of the Asian crisis. Since then, both the 1-month time deposit rate and the 1-month HIBOR rate have shown considerable volatility (see Chart 1.8.2):



Source: *HKMA Monthly Statistical Bulletin*

The interest rates shown in the chart above are average board or *quoted* rates for the sector. The range of rates quoted by individual banks for time deposits varies and this variation is not reflected in sector averages. For example, at the end of September 1998, the 1-month time deposit rate quoted by individual banks ranged between 7.00% to 8.13%. Additionally, individual banks have at times been prepared to pay *preferential* or unquoted rates to attract deposits, which, at times, have been in excess of HIBOR. This implies greater volatility than is evidenced by the quoted rates of individual banks.

Net interest margins

In August 1995, the HKMA noted in their report that the effect of deregulation on banks' interest expense was not significant and that deregulation did not have a significant impact on banks' profitability overall. These trends continued until June 1997 and interest margins of banks increased over this period (see Table 1.8.4). It should be noted that this increase in interest margin occurred during a period of stable or slightly declining interest rates and was also the result of strong loan growth. In particular, this growth has been in more profitable mortgage loans, which increased the yield from banks' loan portfolios and consequently produced better profitability and margins.

Table 1.8.4 Average net interest margins

	Jun 1998	Dec 1997	Jun 1997	Dec 1996	Jun 1996	Dec 1995	Jun 1995
Average net interest margin for local banks	2.31%	2.39%	2.48%	2.55%	2.62%	2.57%	2.40%
Average net interest margin for the sector	1.10%	1.03%	1.14%	1.15%	1.12%	1.06%	0.98%

Note: Annualised average figures for the preceding six months.
Source : *HKMA (internal)*

Profitability of banks continued to be strong and record profits were witnessed at some banks in the period from June 1995 up to the interim results for June 1997. However, the extreme conditions and volatility experienced since then have seen competition for time deposits intensify as banks competed for deposits which were growing at a much slower rate. To illustrate this, total HK$ deposits have only increased by 2.6% in the year to September 1998, against an increase of 22.6% in the year to September 1997. This competition for deposits was exacerbated with foreign banks actively competing for HK$ time deposits in order to avoid reliance on the interbank market.

Increased competition for deposits has affected funding costs and therefore net interest margins for all banks. The picture for local banks over the last year has been one of stagnant loan growth, with higher interest expense and declining interest margins (see Table 1.8.4). In 1998, net interest margins for local banks have decreased by approximately 7% or 17 basis points compared with the first half of 1997[38]. However, this overall percentage conceals wide variations among banks, depending on funding costs, deposit bases and loan portfolios.

Impact on bank profitability

Therefore, in contrast to the conclusion of the HKMA in August 1995, the increased competition for HK$ deposits during the Asian crisis (principally reflected in the volatility of deposits and interest rates) is having a significant impact on banks' profitability.

This provides good evidence to support the HKMA's current concern over increased interest expense and decline in profitability when competition for deposits intensifies. This competition, coupled with declining asset quality has raised some concerns over the stability of the sector as a whole. However, this should also be viewed in the context of the exceptional situation caused by the Asian crisis, where there has been a substantial slowdown in growth in all aspects of the Hong Kong economy and spikes in interest rates caused by speculative attacks on the currency.

Nevertheless, the potential impact of further deregulation of the IRRs on the profitability of the banks (therefore increasing potential systemic risk) is one of the most important issues in the assessment of the IRRs in the current environment and warrants in-depth and careful analysis. Further analysis has been conducted by way of models

[38] Source: *KPMG Banking News September 1998, Listed banks' 1998 interim results*

designed to provide an indication of the impact of further deregulation (see Section 1.8.8 Modelling change).

1.8.5 Assessment of the interest rate rules

Strengths

Interest rate stability

The IRR regulated rates are less responsive to volatile market conditions and provide a measure of price stability. For example:

- Over the period from October 1993 to August 1997, the IRR rates for savings accounts changed broadly in line with HIBOR rates. There has typically been an average spread of around 1.5% below overnight HIBOR from 1993 to 1997. However, in the period from September 1997 to September 1998, although the IRR rates increased three times (in October 1997, January 1998 and March 1998), they have been considerably more stable that the volatile HIBOR rates.

- In the period since September 1997, the rate paid on savings accounts under the IRRs has increased from 4.00% to 5.25%, whereas the rate paid on 1-month HIBOR has fluctuated between 5.5% and 12.00%[39] (see Chart 1.8.3).

Similarly, the prime rate, which is in practice adjusted by the leading banks following a change in the IRR savings rate, has maintained a consistent spread of 4.75% over the IRR savings rate in the period from March 1994 to August 1997. During the Asian crisis, it has also been stable in comparison to the volatile HIBOR rates.

One consequence of the IRRs is that they act as a benchmark rate for banks to price their prime or best lending rates. In the absence of a government base rate which, in other countries (e.g. the US, the UK) provides this benchmark, banks will need to look to market interest rates (such as HIBOR) for a reference rate. It is questionable whether a more responsive market pricing mechanism for prime, benchmarked off HIBOR, would benefit the market (and Hong Kong in general) in view of the current instability of HIBOR. The fact remains that HIBOR pricing is driven by the market liquidity demand/supply curve which, in times of a shortage of Hong Kong dollars (whether due to pressures on the exchange rate or other reasons), can become extremely volatile (e.g. overnight rates of up to 280% in October last year).

It should be noted that the rate stability provided by the IRRs has helped cushion falls in bank profitability and, in doing so, provided a measure of sector stability, especially in the light of the destabilising competition for time deposits during this period. In addition, the fact that the prime rate has not fluctuated wildly despite the volatility in market rates (see Chart 1.8.3), may have helped to soften the declines in the property market which is sensitive to interest rate changes. This stable interest rate environment can also contribute to lower default rates on mortgages and other property-related lending which comprise a substantial portion of banks' loan portfolios.

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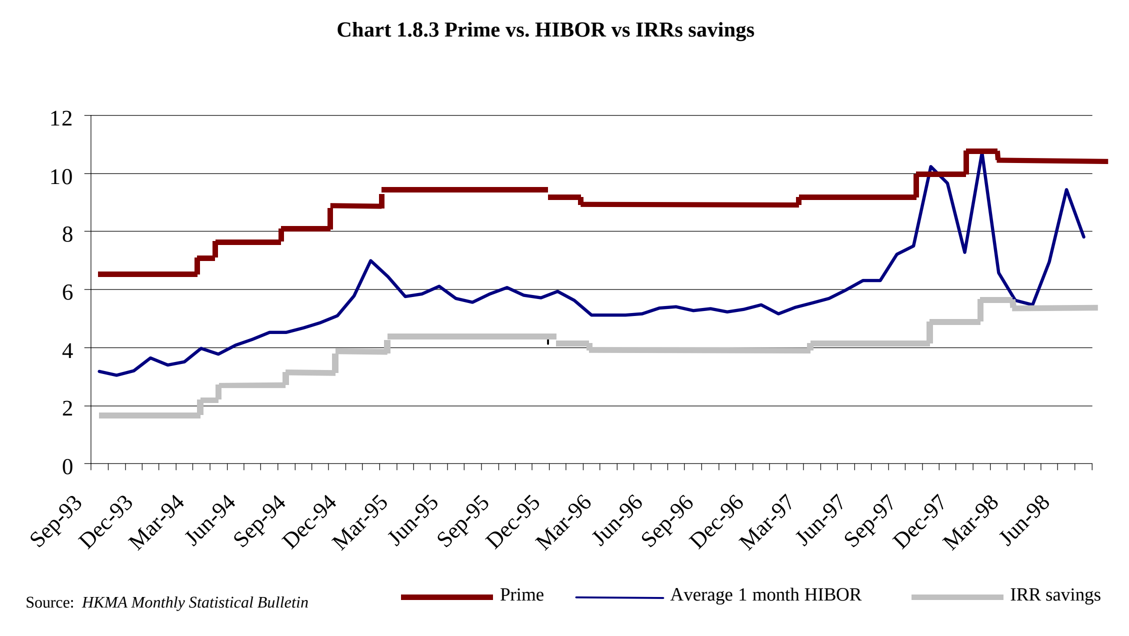
39 Source: *HKMA - period average figures*



Competitive position of small banks

There is a significant concentration of IRR regulated deposits in the larger banks (the HSBC Group, the BOC Group and Standard Chartered Bank), which reflects their dominance in the market. The fact that smaller local banks do not have to compete for savings and current account deposits on a price-basis with these larger institutions goes some way to address their limited market share. Without this restriction on the larger banks (i.e. not to be able to compete on interest pricing) it is possible that they would be able to take advantage of their dominance and price the smaller players out of the market.

Weaknesses

The theoretical arguments against interest rate controls are well set out in American economic research prior to deregulation of these controls in the 1970s and 1980s[40]. Essentially, banks will compete in different ways if they are impeded from competing on interest rate pricing. They will tend to offer alternative or modified services (e.g. no transaction charges or minimum balance requirements) or discounts on other financial products (e.g. lower lending rates) even though such arrangements may also be proscribed. In addition, consumers and the market will seek ways to circumvent such restrictions (e.g. swap deposits).

Consequently, the effect of interest rate controls is simply to redirect competition and cause efficient banks to divert resources into other activities or facilities that would otherwise be potentially paid to depositors. For example, they may open additional branches to collect more (relatively cheap) deposits. At the same time, the controls act as subsidies to inefficient institutions by lowering their cost of funds, thereby retaining

40 For example, Ben Klein "Competitive interest payments on bank deposits and the long-run demand for money" – American Economic Review December 1974.

more institutions in the industry than is optimal. Therefore, one consequence of deregulation will be that banks will reassess individual branch profitability and their existing branch network distribution. Deregulation may also bring forward the process of consolidation in the sector.

Additionally, it has been the experience of advanced financial economies that, in the long run, such regulations will prove to be too costly to be maintained or simply ineffective. For example, in the US, one of the driving forces for the deregulation of interest rate controls was the growth of money market funds that offered higher rates of return. The interest rate controls had therefore reduced banks' competitiveness in attracting deposits.

Price competition

The IRRs directly restrict price competition on certain deposits and consumers therefore lose out in terms of interest received on these deposits. For example, the Consumer Council, in its report in 1994, estimated that the total monopsonistic[41] rents extracted from HKAB depositors amounted to HK$5.17billion or 0.8% of GDP in 1991.

Resource allocation

Efficient allocation of capital resources is the primary role of banks in an economy (i.e. intermediation). As banks are the dominant intermediaries in Hong Kong, interest rates become the primary mechanism for determining capital allocation in the local economy. For example, as savings account interest rates do not vary between banks, savings are not channelled to those institutions which give the best return for the risk involved (i.e. those banks that are more effective at managing their lending activities and business operations). A similar situation may also arise on the lending side, where the consistent spread of Prime over IRRs savings rates may encourage banks to concentrate their lending on Prime-based products such as mortgages.

Consumer choice

The specific restriction governing current accounts (i.e. no interest is allowed to be paid) has reduced the choice available to consumers in retail accounts in comparison to other international financial centres. For example, a variety of accounts such as high interest accounts with more stringent terms or low interest accounts with more transactional freedom could become available if banks were allowed to compete freely in this regard.

The principle argument for maintaining this distinction (i.e. interest bearing versus non-interest bearing) between the savings and current accounts appears to be that current accounts are transactional (i.e. customers are allowed to use cheques) and therefore, depositors receive transactional services rather than interest. This situation is changing rapidly due to technology and it is notable that in Hong Kong electronic payment items are transacted through savings accounts. For example, Payment-by-Phone Services, direct debits and standing orders are transactions, which would have been performed

[41] The term monopsonistic is used, as opposed to monopolistic, because banks are perceived as buyers (as opposed to sellers) in the deposits market.

using cheques a few years ago, that can all be transacted through savings accounts. Savings accounts are therefore developing as transactional accounts and the distinction between savings and current accounts is blurring.

This observation does not appear to support the argument that a distinction needs to be maintained between current accounts and savings accounts. Even if such a distinction were to be needed, it should be possible to operate a *sweep* account that automatically transfers funds to or from current accounts to match cheque payments or receipts. However, such an arrangement is specifically prohibited by the IRRs[42].

A further point to note is that a number of banks in Hong Kong pay interest on current accounts to their staff members (which they are allowed to do under the IRRs). This implies that, although there may be a need to keep the accounts separate for cheque clearing purposes, the systems are available to deal with this issue. This should not therefore prevent the payment of interest on these accounts, which in fact is allowed and occurs in other countries.

Consolidation

Smaller local banks are predominantly retail market orientated. Therefore, lower funding costs and protection of retail interest spreads may allow sub-scale banks to continue business by limiting the effectiveness of the competitive mechanism to weed out weak players. While the major barrier to the consolidation of smaller banks in Hong Kong appears to be diversified shareholdings or family ownership, the IRRs may also have been a contributing factor.

Formal pricing mechanism

There exists in Hong Kong a formal mechanism for the pricing of IRR governed accounts (i.e. HKAB). This may create a perception that a *cartel-based* system is appropriate for Hong Kong, which is at odds with the international reputation of Hong Kong as an open economy. Therefore, the IRRs could be criticised from the *laissez faire* point of view because they act as a hindrance to the free play of market forces.

This situation is not dissimilar in other countries with an open and competitive environment, where the pricing of most accounts will be set by a few price-setting banks and generally followed by the smaller banks. Hence, although the manner in which interest rates are set for most deposits and loans is not dissimilar to other countries in practice, the formalised manner in which certain rates are set may detract from Hong Kong's reputation as a leading financial centre.

[42] It is worth noting that a customer can with most banks operate such a sweep arrangement themselves (albeit not automatically) using most ATM account transfers capabilities.

Cross subsidies

As banks are restricted in their ability to compete on interest rates, they compete through other areas. One consequence of the IRRs is that there is cross-subsidisation between IRR accounts and other products and services, which benefits smaller depositors (i.e. there are few transaction charges or minimum balance requirements levied on current and savings accounts in Hong Kong) at the expense of larger depositors.

While these cross-subsidies may achieve a desirable social objective of providing low cost banking services to the general population, it is normally considered to be inefficient for the sector as a whole, as it prevents individual products from being properly priced. Additionally, there is a view that it is unfair to penalise one group of consumers at the expense of another group.

1.8.6 Comparison with other international financial centres

Although some countries[43] have, in the past, placed interest rate restrictions on their banking markets, as far as we are aware, no major international financial centre continues to do so. However, some countries still restrict the types of deposit instruments (e.g. current accounts) that are allowed to pay interest, rather than restricting the deposit interest rates. For example, in the US, current accounts of *for profit entities*[44] are not allowed to pay interest. This restriction is a remnant of the old Regulation Q and relates to the fact that any demand deposit carries a liquid reserve balance that must be maintained at the Federal Reserve Bank. As a consequence, most for profit entities maintain their balances in interest bearing accounts that will allow them to transfer funds as needed to their current accounts. (In fact, banks in the US perform a tremendous amount of cash management business).

1.8.7 Views of market participants

All types of authorized institutions were against eliminating the remaining IRRs within the next five years. The local banks were most strongly against any deregulation and, in particular, are almost totally against allowing interest to be charged on current accounts (see Table 1.8.5):

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[43] For example, the US, UK, Canada, Japan, Korea and New Zealand. Interest rates were deregulated in the US in 1980-86, UK and Canada in 1967 and 1971, Japan in 1993 and New Zealand in 1983.

[44] For profit entities include any organisation that intends to generate income for the benefit of its stockholders or owners.

Table 1.8.5 Authorized institutions' views on removal of the IRRs

	Total % against	Local banks % against	Foreign banks % against	RLBs % against	DTCs % against
Fixed deposits 2 – 7 days	55%	61%	52%	44%	65%
24-hour deposits	65%	79%	59%	51%	75%
Savings accounts	71%	89%	63%	56%	84%
Current accounts	81%	96%	75%	67%	92%

Source : *Regulatory survey*

Interestingly, few institutions viewed deregulation as an opportunity and only 17% considered that they would be able to attract new deposits in such an environment. DTCs and banks were the most pessimistic, with only 6% and 11% respectively considering that they would be able to attract deposits.

Locally incorporated licensed banks and multi-branch foreign banks felt that this would increase the volatility of their deposit base and would not help them attract new deposits. They also reported that the move would cause them to lose market share and substantially reduce their profitability. Around half (48%) of the local banks indicated that this move would destabilise the banking sector, although overall, only 25% of institutions agreed with this.

DTCs generally felt that removing the IRRs would be negative for them, with a higher percentage of them (compared to single-branch foreign banks and RLBs) stating that their deposit bases would become more volatile, their profitability would reduce, it would destabilise the sector and that they would lose market share.

Single-branch foreign banks and RLBs generally gave mixed views. They did not, however, anticipate any substantial drop in market share or profitability as a result of the move, presumably due to their limited deposit-taking activities.

There was general consensus among local and multi-branch foreign banks (57%) that removing the IRRs would result in greater responsiveness of borrowing and deposit rates to underlying market conditions.

The main conclusion drawn is that locally incorporated licensed banks and multi-branch foreign banks see themselves as the main losers, while DTCs also see themselves as losing competitiveness. RLBs and single-branch foreign banks are unsure as to the effect.

One important issue noted in the interview process was that, even if the IRRs were to be eliminated, the current market conditions would make releasing them inappropriate at this time. The major issue noted overall is that banks almost uniformly expect that the release of the IRRs would cause instability in the market, in respect to both volatility of interest rates and deposit bases.

From the banking survey and interviews, banks indicated that if the IRRs were removed they would take steps to protect their market share and profitability. Their response in this respect would be to reassess the cross-subsidies that currently exist and to eliminate them if they are not profitable. Other responses to deregulation might include:

- instituting transaction charges and minimum balance requirements;
- increasing their Best Lending Rates; and
- reassessing branch networks and cost structures.

1.8.8 Future considerations

The IRRs have provided a measure of underlying stability in the retail deposit and residential mortgage lending market. However, the IRRs limit competition for certain deposits and raise questions about efficient allocation of resources. In deciding whether the remaining IRRs should be deregulated, a number of issues need to be considered. Principally, whether the long term impact of restricting competition is outweighed by the need for interest rate stability. For example, if the IRRs are to remain in place, the incentives for banks to develop alternative financial products to reduce cost and attract more deposits are reduced.

From the perspective of consumer choice and fair returns to depositors, the argument generally used by the banks is that consumers receive other services in lieu of higher interest payments. This, however, results in inefficiency in the pricing of products and provides a subsidy to banks in the form of cheaper funding that discourages the forces of consolidation. This subsidy is provided at the expense of savers which is neither efficient nor equitable. With the IRRs removed, interest costs are likely to rise and this may lead to a consolidation in the industry as has been experienced in other countries where interest rates have been deregulated. The fewer surviving institutions will be more efficient, providing more competitive interest rates to savers and using fewer resources to provide intermediation services.

Ultimately, the basis for supporting further deregulation would be the improved use of society's resources in ways that are more productive relative to the case under a regulated environment. The weaker institutions will lose out whilst depositors will gain higher returns and society will eventually benefit through more efficient intermediation. Competition in international financial markets encourages development of both new products (such as combined savings and current accounts or sweep accounts) and more efficient institutions, but this process may be stifled in Hong Kong if banks are not allowed to compete for their funds.

While continuing the status quo is a reasonable regulatory decision during the current financial crisis gripping Asia, it is difficult to defend as a long term stance, given the competitive reach of the global financial sector. Shielding Hong Kong banks from this process will handicap the strongest banks from effectively responding to these forces by reducing the incentive to do so in their home market. It is essential, however, that the process of further deregulation is carefully managed to avoid potential instability in the banking sector.

Implications of change

Modelling change

Given the importance of the IRRs, two models have been developed to measure the potential impact of interest rate deregulation on banking sector interest expense. Both models used interest rate and deposit data available up to the end of 1997.

Firstly, an econometric model was developed to assess the potential impact of revoking the IRRs on savings accounts and time deposits[45]. This model reviewed the impact of the 1994-95 deregulation of time deposit accounts on deposit movements through to the end of 1997 and drew several conclusions:

- The interest rates on newly deregulated time deposits rise (bringing the rates offered on newly deregulated deposits closer to those for unregulated deposits (i.e. over HK$500,000)), providing support for the assumption that the IRRs had been binding (i.e. constraining banks from what they would willingly pay in an unregulated market).

- The deregulation of time deposits led to an outflow of funds from savings accounts to benefit from higher rates paid on time deposits. The volume of deposits in those brackets that had been deregulated (e.g. 1-month or 3-month) increased both in absolute terms and as a proportion of total deposits[46].

- The yield curve of newly deregulated deposits shifted to more closely match that of unregulated deposits, eventually settling at an interest differential of approximately 0.50% to 1.00% (i.e. time deposits of HK$500,000 or over typically pay 0.50% to 1.00% more interest than those deposits less than HK$500,000 in the same maturity bracket).

- Focusing on savings accounts and 1-month time deposit accounts under HK$500,000, at an interest differential of about 1.40% between savings accounts and 1-month time deposits, the proportion of each in relation to total deposits would remain stable. For example, if the interest differential became higher than 1.40%, funds would flow to 1-month time deposits from savings accounts. Conversely, if the interest differential was less than 1.40%, funds would tend to remain in and flow back to savings accounts. An interest rate differential of about 1.40% between savings accounts and 1-month time deposits under HK$500,000 can, therefore, be considered as the *equilibrating interest rate differential*.

These findings were then utilised to develop a predictive model to estimate the impact of interest rate deregulation on the share of savings accounts as a proportion of total

45 See Dr. Mack Ott, Paul Christopher, Sean Crockett, "Analysis of the Impact of the Removal of the Interest Rate Rule on Deposit Interest Rates and Share Distributions," (revised), July 11, 1998.

46 HKMA data indicated that time deposits held with licensed banks accounted for 66 percent of total deposits held with authorized institutions in 1993, rising to more than 70 percent in 1994, 72 percent in 1995, and 74 percent by end 1997. After peaking in January 1998, time deposits have more recently settled at about 75 percent of total deposits with all authorized institutions since February 1998.

deposits under HK$500,000. The approximate share of savings accounts as a proportion of total deposits under HK$500,000 (less current accounts) as at the end of 1997 was 66%. The model indicates that, assuming an equilibrating difference of 140 basis points between 1-month time deposits and savings accounts rates, the savings account share of these deposits would increase to 78%. This increase in the share of savings accounts (due to funds flowing back from time deposits) would mitigate, to an extent, the impact of higher rates paid on savings accounts due to deregulation (as time deposits pay higher interest rates).

As the model was designed to focus on deposit movements and interest expense, the model did not address the issue of how banks would seek to preserve net interest margins through changes in lending activities (e.g. increases in lending rates to compensate for increases in funding costs).

The second model was developed to translate the results of the econometric model into financial terms for the 40 banks holding the large majority of HK$ deposits[47]. This financial sensitivity model ("FSM") represents an effort to reconcile the assumptions of the econometric model with the actual financial impact IRR deregulation could have on banks' interest expense and net interest margins. As with the econometric model, the FSM does not attempt to predict how banks might pass on the higher cost of funds to preserve net interest margins, nor does it attempt to ascertain other income generating strategies that might be deployed to compensate for some of the increase in interest expense that might not be passed on through lending activities. However, the model does point out the initial impact on interest expense (on a weighted average basis for 1997) as a result of higher interest expense associated with differing scenarios.

The methodology of the FSM is based on the following inputs:

- 1997 data for 40 major authorized institutions have been put on a weighted average basis to provide average monthly balances, distributions and rates for all types of deposit accounts.

- The data have been disaggregated by bank (on an unnamed basis) and have also been presented by accounts below and above HK$500,000.

- Basic data indicating interest income, interest expense, average assets and net interest margins for 1997 have been included.

- Formulae have been utilised to assess the impact of various interest rate increases on current and savings accounts with deregulation of the IRRs as compared to the 1997 actual data. Additionally, the impact on interest expense of movements into and out of savings accounts and time deposits was also assessed.

As the model includes distributions across instruments and banks, all of these data and results can be disaggregated by individual bank (on an unnamed basis) and by group of banks (local and foreign banks).

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[47] These were the 40 institutions included in the HKMA interest rate survey.

One base case (i.e. 1997 actual data) and 10 scenarios were devised and reviewed, mostly consisting of the impact of interest rate changes on total interest expense, and the consequent impact on net interest margins. The assumptions and results of all the scenarios in the FSM are set out in Appendix 1. The scenarios were selected to show the effect of partial deregulation (i.e. only for savings accounts or current accounts) and full deregulation, under a number of different interest rate environments.

The model showed that the impact on banks' interest expense would vary considerably depending on the change in interest rates and the type of deregulation (e.g. whether current accounts or savings accounts or both were deregulated). The following four scenarios illustrate the impact of deregulation under differing circumstances. These scenarios were selected because they provide a good overview of the range of outcomes possible from various forms of deregulation.

- ***Deregulation of savings accounts (Case 1)*** – in this scenario, only savings accounts were deregulated and the interest paid on these accounts increased from 4.13% (actual average rate for savings accounts in 1997) to 4.71%[48] (i.e. at the equilibrating difference of 140 basis points less than the actual average 1-month deposit rate of 6.11%). Additionally, the distribution of deposits was changed to reflect the predicted distribution (i.e. savings accounting for an annualised average 70%[49] of non-current account deposits under HK$500,000).

  The impact on interest expense for the 40 banks would be an increase of HK$1.1billion. The interest margin for foreign banks would decrease from 1.13% to 1.10% (3 basis points). The impact on local banks is significantly higher than that for foreign banks (due to their larger market share of savings accounts) and their interest margins would decrease from 2.51% to 2.42% (9 basis points).

- ***Deregulation of savings accounts (Case 2)*** – in this scenario, to give an indication of a potential worst case relating to deregulation of savings accounts, the interest rates paid on newly deregulated savings accounts and time deposits less than seven days (i.e. less than HK$500,000) were assumed to converge with the rates paid for unregulated deposits (over HK$500,000) in comparable deposit categories. With respect to savings accounts, interest paid would increase to 5.68% (i.e. a spread of 25 basis points below that of unregulated deposits).

  The impact on interest expense would then be HK$5.4billion and the interest margin for foreign banks would decrease from 1.13% to 1.04% (9 basis points). Again, the impact on local banks is significantly higher, with their interest margin declining to 2.28% (23 basis points).

- ***Deregulation of current accounts (Case 3)*** – if only current accounts were deregulated and interest payments were allowed up to the IRR rate for savings accounts, the impact on interest expense would be HK$4.4billion and the net interest margin for foreign banks would decrease from 1.13% to 1.06% (by 7 basis

48 This rate is predicted based on a regression model of the actual experience during prior deregulation in Hong Kong.
49 The econometric model predicts an increase to 78% (annualised average 70%) share of total deposits for savings accounts over a period of four months.

points). The corresponding impact on local banks would be a decrease of 19 basis points, to 2.32%.

- ***Full deregulation of both current and savings accounts (Case 4)*** – to provide an indication of a possible maximum increase in interest expense for banks, if all of the remaining IRRs were removed, the interest rates on current, savings and short-term time deposits were assumed to increase to 25 basis points below those offered for comparable deposit categories above HK$500,000 (i.e. convergence of interest rates). The impact on interest expense would be HK$11.6billion and the net interest margin for foreign banks would decrease from 1.13% to 0.94% (19 basis points). The impact on local banks would be a decrease of 49 basis points to 2.02%.

The above four scenarios are summarised below in Table 1.8.6:

Table 1.8.6 Impact of releasing the remaining IRRs (under four scenarios)

	Actual data for 1997	Deregulation of savings accounts		Deregulation of current accounts	Full deregulation
	Base case	Case 1	Case 2	Case 3	Case 4
Effective interest rates on:					
Current accounts	0.00%	0.00%	0.00%	4.13%	5.68%
Savings accounts	4.13%	4.71%	5.68%	4.13%	5.68%
Total interest expense (HK$million)	175,729	176,817	181,167	180,195	187,310
Increase in interest expense (HK$million)	-	$1,088	$5,438	$4,466	$11,581
Net interest margins:[1]					
Local banks	2.51%	2.42%	2.28%	2.32%	2.02%
Foreign banks	1.13%	1.10%	1.04%	1.06%	0.94%
Decrease in net interest margin for local banks:					
% reduction	-	3.6%	9.2%	7.6%	19.5%
Basis point reduction	-	9bp	23bp	19bp	49bp

Notes : [1]Net interest margins = net interest income divided by average interest earning assets
Source: *KPMG/Barents analysis*

The above scenarios reflect the potential increases in interest expense that banks in Hong Kong could be exposed to. In particular, Case 4 (full deregulation) describes a potential “worst case” situation. However, in a stable interest rate environment and if the effect of deregulation were to be similar to that experienced in the previous deregulation of the IRRs in 1994 and 1995, the impact could be much less. For example, a more likely scenario (in a stable interest rate environment) might be that interest rates on savings accounts rise to meet the rate predicted by the econometric model (i.e. as in Case 1 above) and interest rates on current accounts rise to 2% (a similar rate to that offered on current accounts in other developed financial centres). In this case the impact on local banks would be a decrease in interest margins of 17 basis points or 6.8%. (see Scenario 7 of the Appendix)

Conclusions regarding changes to IRRs

Full deregulation of the IRRs could have a significant financial impact on the interest expense of banks, particularly for local banks. On a worst case assumption (which is not necessarily the most likely), and on the basis of 1997 data, the potential impact on net interest margins of local banks could be as high as 49 basis points. To put this into context, the decline in net interest margins for all local banks in the period from June 1997 to June 1998 (reflecting the impact of the Asian crisis) was 17 basis points. Therefore the impact of full deregulation is potentially far greater than that experienced during the Asian crisis.

It is likely that banks would act to pass on or mitigate these costs in the form of reductions in branch networks, higher fees and/or higher lending rates to customers. One consequence of this may be an increase in mortgage rates, which could adversely affect the property market.

The ability of smaller banks to act independently of the larger banks (who may be more able to absorb these costs) and maintain their profitability is questionable in light of the strategic outlook for the sector. In the current market environment, where banks are showing significant declines in profitability (e.g. in interim results, 12 listed banks disclosed an average decline in profit after tax of 33% or HK$7.2billion) due to bad debts, reduced loan growth and narrowing margins. Increased competition for funds would therefore reduce profitability even further. Until the economic situation has stabilised and the peak level of bad debts in the sector has passed, it would not be prudent to expose banks (and the sector) to this risk. Additionally, deregulation will cause banks to reassess their business activities and will require them to make structural changes to their business. This may require significant investments into new products and systems, which may not be possible in the current difficult environment.

In determining whether to deregulate, the HKMA would also need to consider the degree to which changes to the IRRs could:

- impact banks' liquidity ratios and liquidity management practices (through a change to the term structure of their deposit base) and potentially affect overall banking sector stability; and

- add to interest rate volatility in the market, particularly residential mortgage interest rates which could potentially impact default rates or consumer behaviour patterns in the residential mortgage market.

As noted previously, volatility in residential mortgage rates could in turn impact underlying property values and the overall Hong Kong economy.

Recommendations

In the longer-term, deregulation does bring with it a number of benefits, including more efficient intermediation and improved product choice for consumers. However, actions taken to deregulate the remaining IRRs have the potential to increase the recent reductions in profitability of banks and also sector instability. We therefore consider that deregulation of the remaining IRRs should not occur at this particular time, when there is already increased systemic risk in the financial sector. Once this period of market volatility has subsided, we recommend the HKMA take steps to assess whether deregulation could be achieved without a significant adverse impact on systemic risk of the sector. Given the difficult operating conditions expected during 1999, no deregulation is recommended next year.

In determining the timing of such deregulation, we recommend that it should only be introduced after a specified period of stability characterised by relative containment of risk. The containment of risk could be measured using a wide range of monetary, financial and market indicators and monitoring of these indicators should commence during 1999. These include:

- comparatively narrow interest rate movements over a sustained period[50];
- trends in banking sector profitability and interest margins;
- maintenance of foreign exchange reserves at traditionally high levels and a limited number of required major interventions to head off attacks on the Hong Kong dollar;
- restoration of a significant proportion of lost value for the Hang Seng Index and property markets; and
- other measures of importance to the Hong Kong economy.

Additionally, not all banks currently have the products, systems, risk management capabilities and/or balance sheet structures that would enable them to compete in a fully deregulated interest rate environment. Consequently, if the HKMA and the HKAB move towards interest rate deregulation, such reforms would be more prudently implemented if phased in over a period of time. A phased approach would allow banks to strengthen their interest rate risk management, and for the HKMA to adopt appropriate procedures to assess banks' risk management processes before further deregulation occurs.

There are only three separate types of accounts or deposits that remain to be deregulated (i.e. current accounts, savings accounts and time deposits up to 6-days).

In determining how and when to deregulate these types of accounts in a phased manner, we have considered the likely impact of the deregulation of each on sector stability and individual banks' ability to compete. Bearing these considerations in mind, one

[50] The effect of the "seven measures" to strengthen the currency board, in particular, the introduction of the discount window and the effect of this on the volatility of HIBOR rates needs to be clearly understood.

possible scenario is outlined below (subject to monitoring of indicators during 1999 and following each stage of deregulation):

- ***Stage 1 -*** remove interest rate restrictions on time deposits with a maturity of 24-hours up to 6-days;
- ***Stage 2 -*** allow interest to be paid on current accounts up to existing interest rate caps; and
- ***Stage 3 -*** remove all remaining interest rate restrictions.

Time deposits (24 hours – 6-days)

Short-term time deposits up to 6-days are the smallest balance of any of the IRR regulated deposits (HK$1billion or 0.3% of total IRR deposits, see Table 1.8.2 above). The key issue in the deregulation of these deposits is the potential shift from longer maturity time deposits or from savings deposits, which would affect banks' liquidity and balance sheet management. In the past deregulation of short-term time deposits (1- to 2-weeks), there has been no noticeable shift towards these short-term time deposits from longer-term time deposits. For example, the proportion of these short-term time deposits has remained relatively stable at 1-1.2% of total deposits under HK$500,000. At the same time, surplus funds have been transferred from savings accounts into medium- and long- term time deposits, rather than the 7-day to 2-week time deposits. For example, 7-day time deposits have increased slightly (from 1% to 1.2% of total) since deregulation but 1-month and over 1-month time deposits have increased much more rapidly (to 16.5% and 26.5% of total respectively) (see Table 1.8.7):

Table 1.8.7 Growth of deregulated time deposits (< HK$500,000) vs. savings accounts

	March 1995		June 1998		% increase
	HK$m	% of total	HK$m	% of total	
Savings accounts	259,897	72.4%	305,919	55.6%	17.7%
Time deposits less than 7 days	793	0.2%	1,041	0.2%	31.3%
7-day to 2-week time deposits	3,442	1.0%	6,644	1.2%	93.0%
1-month time deposits	38,925	10.8%	90,468	16.5%	132.4%
Over 1-month time deposits	55,992	15.6%	145,857	26.5%	167.5%
Total	**359,049**	**100%**	**549,929**	**100%**	**53.2%**

Source: *HKMA interest rate survey of 40 authorized institutions*

Accordingly, it is unlikely that this situation would change in deregulating these shorter-term deposits and the impact of this on sector stability would therefore be minimal.

Current accounts

The deregulation of current accounts would be expected to have less impact on sector stability than deregulating savings accounts. This is because, as transactional accounts, they are generally less mobile. Consumers are less likely to move their current accounts from bank to bank just because of interest rate differentials, as quality of service and other practical issues will affect their choice. Additionally, the process for opening a current account is much more onerous than for placing time deposits and therefore customers tend not to move these accounts between banks often.

Freeing up current accounts from interest rate restrictions would also allow banks to innovate and develop new products to help maintain their customer base following deregulation. This will prepare banks for the deregulation of savings accounts as customers will be less likely to switch banks for their transactional purposes if they are satisfied with the levels of service and options available to them. For example, integrated current and savings accounts would be less mobile than standalone savings accounts. Deregulation of current accounts would also address one of the major weaknesses of the IRRs in that consumer choice would improve, as banks would be able to innovate and could offer a variety of transactional/interest bearing current accounts.

However, the major impact of deregulating current accounts would be the direct increase in interest expense for banks. For example, the model scenario (Case 3 above) indicates a possible cost to banks of HK$4.5billion, which in part explains banks' negative views on this. To mitigate this impact, instead of allowing interest to be paid up to the IRRs savings rate, HKAB could consider placing a lower interest rate cap as an interim measure. For example, 1-3%, although banks would have the option of choosing any rate within this range.

Remaining interest rate restrictions

Deregulation of the remaining interest rate caps on both current and savings accounts should only occur after the impact of the prior deregulation has been ascertained. The potential impact of freeing up these caps could be significant (see Case 4 above). Consequently it is important that the HKMA is satisfied that sector stability will not be adversely affected.

Timing of the phases will depend on the impact that each step in the deregulation process has on the market, as well as the underlying market conditions prevailing at that time.

1.9 Conclusions

The individual recommendations made in this section should not be viewed in isolation as they are interrelated. The impact of implementing all recommendations would represent a considerable development to the current banking environment in terms of both structure and regulation.

The HKMA's role is to promote efficiency, integrity and development of the financial system, as well to promote safety and stability of the banking system. Therefore, when viewing these recommendations, it is important to ensure that a balance between an open competitive market and safety and stability is maintained.

It is equally important that the timing of implementation of these recommendations should not destabilise the system by adversely affecting sector liquidity and profitability, especially in view of current market conditions. It is also important that these recommendations should be implemented over a period of time, so that there continues to be a balance between competitive and safety and soundness issues, rather than implementing them all at once. In addition, an improved supervisory system will need to be implemented, to maintain the safety and soundness of the sector, prior to opening up the market and the consequent increase in competition that these recommendations will allow.

The recommended developments to the supervisory approach are set out in Section 2 and a proposed integrated implementation approach is set out in Section 3.

Regulatory recommendations made in this section broadly fall into two categories:

- those designed to improve the safety and stability of the banking sector; and
- those designed to promote an open and competitive environment to enhance Hong Kong's position as an international financial centre.

Safety and stability

The recommendations concerning financial disclosure, lender of last resort and depositor protection are all aimed at strengthening the safety and soundness of the sector in preparation for developing a more open and competitive market.

Requiring financial disclosure by foreign branch banks will allow depositors and other market participants to understand the business operations, balance sheet structures and riskiness of individual banks in the context of the banking sector as a whole. For example, individual banks' loans portfolios could be compared to sector-wide credit concentration and market share information. Therefore the market discipline mechanism will be enhanced.

The safety net measures, clarifying the role of the lender of last resort and depositor protection, would help address the issues of bankers and consumer confidence and, thus, the general stability of the sector. For these measures to be effective, the HKMA will need to ensure that the general public is fully aware of the benefits that these changes will provide, as well as their responsibilities in this regard.

Open and competitive market

Our recommendations, if fully implemented, will result in a change to the structure of the banking sector, as well as a fully deregulated interest rate environment. The final result, of implementing our recommendations on the three-tier system, the one-building condition and the market entry criteria, will be a more open banking market. Barriers to entry will be set to exclude unqualified entrants rather than to exclude competition, according to the policy of allowing a broad range of local and foreign institutions to participate in the Hong Kong banking sector commensurate with their qualifications. At the same time, this structure will continue to provide a measure of protection to small depositors.

Although we do not recommend that the remaining interest rate rules should be removed at present, in the longer-term, the need to develop a more competitive banking sector will necessitate their removal. In particular, we believe that all of these changes will help develop domestic institutions' strengths, to enable them to compete effectively in the emerging global financial environment.

Sequence of change

In determining the sequence of change, the HKMA will need to consider those issues of a greater priority and which issues need to be resolved and implemented prior to addressing others. We consider that the following sequence of change would be appropriate (see Table 1.9.1):

Table 1.9.1 Proposed sequence of change

	Changes relating to safety and stability of the banking sector	Changes relating to an open and competitive market
Phase 1	➢ Introduce financial disclosure by foreign branch banks (limited disclosure introduction in progress). ➢ Clarify the HKMA's role as lender of last resort.	➢ Relax the one-building condition to allow three branches for foreign banks. ➢ Begin monitoring process prior to the start of deregulating IRRs.
Phase 2	➢ Raise minimum capital requirements for local authorized institutions. ➢ Study of alternatives to enhance explicit depositor protection.	➢ Simplify the three-tier system. ➢ Reassess access criteria to RTGS. ➢ Stage 1 of deregulation of the IRRs (time deposits up to 6-days)[1.] ➢ Stage 2 of deregulation of the IRRs (current accounts).
Phase 3	➢ Implementation of enhanced explicit depositor protection scheme.	➢ Stage 3 of deregulation of the IRRs (remove all remaining interest rate caps). ➢ Reduce the time period and relax the association with Hong Kong entry criteria.

Note: [1] As noted in this section, the precise timing of the start of deregulation should only occur after a period of market stability. Monitoring of market indicators (to determine this timing) should start at the beginning of Phase 1.

Source: *KPMG/Barents analysis*

Phase 1 is intended to prepare the market for subsequent changes to the market structure and includes those changes that can be achieved without significant changes to legislation and existing regulations. Financial disclosure by foreign branch banks should be introduced and the role of the HKMA as lender of last resort clarified. The start of opening up the market to competition occurs with the relaxation of the one-building condition. At the same time, the monitoring of market conditions and interest rate stability should begin, prior to the start of deregulation of the IRRs.

In Phase 2, the majority of the stability issues are addressed and, at the same time, the underlying structure of the banking sector would be determined by simplifying the three-tier system. Consequently, this phase should take place over the medium-term, as legislation and supporting regulations are developed. The study to enhance explicit depositor protection should be completed and proposals for any changes made. Stage 1 of deregulation of the IRRs should be completed during this phase, assuming that the market conditions have stabilised. Stage 2 of deregulation of the IRRs should begin, following a further period of monitoring.

Phase 3 deals with the remaining impediments to a more open and competitive market and should take place only after a specified period of stability has been observed, and the impact of the structural changes and deregulation of the IRRs made in Phase 2 are assessed. If the study concerning enhanced explicit depositor protection proposed change, then the enhanced scheme should be introduced in this phase, along with deregulation of the remaining IRRs (i.e. Stage 3).

2 Supervisory review and recommendations

2.1 Introduction

We identified through the strategic review and the assessment of the Hong Kong banking sector, certain specific issues, which needed more in-depth study and analysis. These issues all relate to areas where we consider that the sector as a whole (not individual banks) is affected and where we suggest the HKMA has a mandate in improving overall banking sector supervision. These issues and the underlying mandates to which they are linked are set out below (see Table 2.1.1):

Table 2.1.1 Strategic mandates and key supervisory considerations

Strategic mandates	Supervisory considerations
➢ ***Regulatory and supervisory framework*** – to ensure that the regulatory and supervisory framework for Hong Kong remains appropriate, given the evolving financial markets.	➢ Potential supervisory gaps created by blurring of traditional boundaries. ➢ Need for increased supervisory co-operation and harmonisation across functional areas. ➢ Reaction to the introduction of a broad array of new products and delivery channels. ➢ Increasing linkage between Hong Kong and other Asian banking, financial and capital markets.
➢ ***Development of the financial system*** – improve the competitive environment to ensure the positive benefits of global and local trends develop in the Hong Kong market, and Hong Kong remains an attractive international financial centre.	➢ Potential implications of more open competition on smaller local market participants (e.g. removal of the remaining IRRs). ➢ Need to address/react to merger activity. ➢ Increasing economic integration with Mainland China. ➢ Ability of local banks to access Mainland China.
➢ ***Safety and stability of the banking system*** - ensure increasing levels of risk associated with global and local trends are prudently managed and that Hong Kong's exposure to systemic risk is mitigated.	➢ Adequacy and effectiveness of the HKMA's risk-based approach to supervision. ➢ Adequacy of risk management capabilities of local banks. ➢ Response to likely increase in remote processing and outsourcing arrangements. ➢ Potential increased exposure to property market.
➢ ***Efficiency and integrity of the financial system*** - increase the level of transparency, both within the banking sector and across financial and capital markets, to allow the forces of market discipline to work more effectively.	

Source: *KPMG/Barents analysis*

In this section, we provide an assessment of the current effectiveness of the HKMA's supervisory processes, including a comparison to those of six benchmark countries selected in consultation with the HKMA. Benchmark countries include the US, the Netherlands, Australia and the UK. In our assessment of the HKMA's supervisory process we have also considered the impact of banking trends that were identified during the course of our work and the responses of supervisory organisations in other countries. Key developments in other countries include the move toward risk-based supervision and the formation of super-regulators in some countries.

At the request of the HKMA, five key components of its bank supervision process were reviewed:

- organisational structure;
- supervisory tools and techniques;
- supervisory policies and guidelines;
- human resources; and
- the quality and volume of management information.

These components form the main content of this section and recommendations are provided in regard to each.

2.2 The HKMA's transition to risk-based supervision

The HKMA asked that we make the assessments that follow because it wishes to adopt a more risk-based approach to supervision. This approach, which has also been adopted by leading supervisors from other countries, is intended to enable the HKMA to appropriately allocate its supervisory resources to those areas of greatest risk, within individual banks and the banking system.

Risk-based supervision has emerged in response to greatly increased risks in the banking sector, particularly over the past two decades. This is due to the expansion of traditional bank products and activities, new technology, globalisation of financial activities and international trends toward deregulation. Supervisory agencies worldwide are re-evaluating their supervisory focus, and most have taken initiatives to enhance their effectiveness. Universally, initiatives are aimed at achieving the following:

- better and earlier identification of risks within the banking sector;
- promoting sound risk management in banks; and
- timely and appropriate responses when undue levels of risk are identified.

This kind of supervisory focus is generally referred to as risk-based supervision. In its simplest conceptual terms, risk-based supervision is risk management at the supervisory level. Its premise is the supervisory recognition that financial institutions are in the business of taking risk and, as a result, risk exposure within the banking system cannot be avoided but must be managed. To manage risks, the supervisor must identify, measure, and monitor these risks to ensure that they are controlled by banks. Risk-based supervision is the process through which these activities are conducted.

Risk-based supervision differs from the traditional supervision in the focus of the supervisory activities and the proactive methods used to assure a safe and sound banking environment. Traditional supervision was based upon the premise that compliance with a set of rules and regulations issued by the central bank would ensure the safety and soundness of the banking industry. These rules and regulations related to exchange and interest rate controls, large exposure limits and capital requirements. Risk-based supervision recognises that banking has expanded beyond the control of one set of regulations (in many cases multiple regulations apply to one product) and the supervisor must find new ways to ensure that the market players operate in ways that will ensure the stability of the financial sector.

Another distinction between the two approaches is how risks are identified. In the traditional approach, risk identification relies primarily on stated financial results which are reflective of past decisions made by management. In the risk-based approach, the supervisor reviews past performance but also looks at the current decisional structure within the organisation to determine possible future results. This allows the supervisor to request changes to current practices, before the effects are evident in the financial results.

Risk identification requires the supervisor to determine the risks to which institutions may be exposed and define them. Risk measurement requires the supervisor to determine the extent to which each bank in the system is exposed to each risk identified. To do this, the supervisor must assess, for each risk to which each bank is exposed, the level of exposure and the adequacy of the bank's risk management processes[51]. Each bank's own risk management activities may mitigate (or exacerbate) the level of exposure to risk within the bank and thus, within the system. In other words, for the purposes of risk-based supervision, risk measurement occurs first on a bank-by-bank basis and results in an aggregate assessment of both the quantity of risk exposure (e.g. high, moderate or low) and the quality of risk management (e.g. strong, satisfactory or weak).

Risk identification and measurement form the basis for the supervisor's risk monitoring and control activities (i.e. for its supervisory strategies, including its resource allocation). Monitoring requires the supervisor to reassess at regular periods the risks within the system. If risk levels are acceptable, the supervisor need do nothing else. Of course, the supervisor can best assure that risks to the system are acceptable if risks to individual institutions are at acceptable levels. Therefore, the supervisor should act when necessary to cause bank management to address situations where risk exposure within an institution is high relative to the ability to manage it. Possible supervisory actions cover a wide range of options, including:

- a series of targeted on-site examinations to see if problems identified in a few banks are really problems on a much broader scale (such as the loosening of underwriting standards for some types of loans);

- a public speech warning banks of an area of increasing supervisory concern; and

- an order requiring management (or the owners) of a bank to take specific corrective measures.

In summary, risk-based supervision establishes a framework for identifying and measuring risks to the banking system, through its assessments of risk exposures in individual institutions. It enables the supervisor to ensure that its supervisory resources are directed to those areas of greatest risk, within individual banks, banking conglomerates and the banking system. Risk-based supervision puts the supervisor in its proper role, providing oversight of the banking system and relying on bank management to manage risks within their institutions. Finally, risk-based supervision is a forward-looking process that continues to work as risks in the bank's environment change, a feature that is particularly important to Hong Kong as an international financial centre.

[51] Risk management processes include all systems or processes used by an institution's management to internally evaluate the level of risk in the various portfolios and the adherence to established risk parameters set forth in policies or other internal guidance. These can include, but are not limited to, internal exception tracking, internal audit programs and risk-modelling programs.

2.3 Framework for assessment

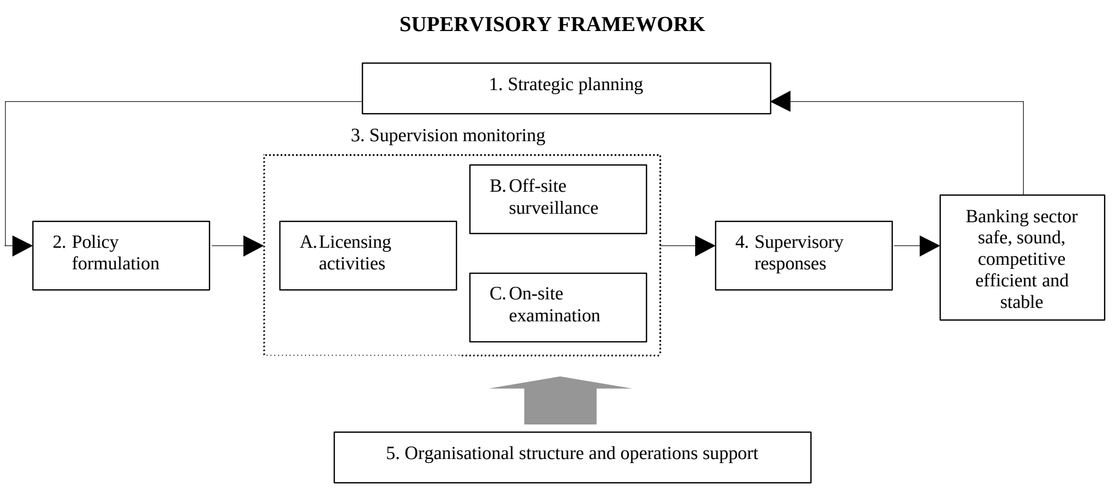
At the request of the HKMA, we reviewed five key components of its bank supervision process:

- organisational structure;
- supervisory tools and techniques;
- supervisory policies and guidelines;
- human resources; and
- the quality and volume of information.

None of these components operate independently, separate from the others. Instead, they are linked and these linkages are critical to effective supervision. We have therefore considered each component in context, as it relates to the development of a supervisory philosophy and its embodiment and articulation in a strategic plan, policies and procedures. In addition, we have considered each component in terms of its implementation through supervisory monitoring (e.g. licensing activities, off-site surveillance and on-site examinations) and supervisory responses to weaknesses. The execution of all of these tasks, through the HKMA's organisational structure and operations support, has also been considered.

These elements of the bank supervision process form the basis for all of this section's comparative analyses, and are summarised below (see Chart 2.3.1):

Chart 2.3.1 Framework of assessment



Source: *KPMG/Barents analysis*

2.3.1 *Development of supervisory philosophy and strategic plan*

A strategic plan is a tool that the bank supervisor can use to ensure that its mission is understood within the agency and publicly, and that personnel consistently pursue it at all levels. It usually sets forth the supervisor's mission or philosophy and the goals or objectives that must be met to carry out that mission. A strategic plan is supported by appropriate action plans to achieve those goals over the strategic planning period[52] and a method for tracking actual performance against action plans.

Developing the strategic plan is generally a senior management activity, with assistance as necessary from mid-level managers to establish the various action plans and monitoring methodologies. The planning process encourages a broad and common understanding of the supervisor's goals and communicating the plan within the agency shows all personnel the role they play in effective supervision. Public dissemination of the supervisor's mission and goals enables the financial institutions that are supervised, the political groups to which the supervisor is accountable and the general public, to gain an understanding of the supervisor's role in the stability of the country's banking sector.

2.3.2 *Formulation of policies and procedures*

Policies and procedures to carry out the goals and objectives set forth in the strategic plan are also critical supervisory tools. They include policies and procedures governing direct supervisory activities, such as:

- licensing new banks;
- permitting banks to engage in new activities or offer new products;
- permitting combinations of banks;
- providing guidance to banks on what the supervisor deems to be unsafe or unsound;
- assessing the condition of individual banks and of the banking system; and
- initiating, pursuing and following up on corrective actions.

They also include policies and procedures governing the supervisor's internal operations. These range from hiring and training new personnel, to assessing how changes in the banking sector are affecting the skills needs of supervisory staff, to ensuring that all policies and procedures are consistently and fairly applied. There should also be procedures for reassessing all policies and procedures periodically, to ensure that they are substantively adequate and consistent with one another and the supervisor's strategic goals.

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52 As a general rule, most supervisory authorities have established a three to five year time horizon in their strategic planning process.

Policies and procedures related to direct supervisory activities should be disclosed to banks and to the general public. As with the strategic plan, disclosure enables the public to gain a better understanding of the supervisor's role. More importantly, informing banks of the supervisor's expectations and of the consequences for failure to meet them is an effective supervisory technique for encouraging voluntary compliance.

2.3.3 Supervisory monitoring

Supervisory monitoring provides the basis through which supervisory policies and procedures are implemented. Monitoring is used to identify and assess the risks within individual banks and the banking sector, and typically occurs on entry or combination (through licensing), as products or locations of activities are expanded (also through licensing), and throughout the life of each bank (through off-site surveillance and on-site examinations).

Successful supervisory monitoring depends on the quality and volume of information collected for analysis, whether the information is collected through a licensing application, routine periodic financial performance reports, a full scope or targeted on-site examination, or discussions with institution management. Supervisory tools such as examination and licensing manuals, standardised application documents, standardised financial return forms and standardised examination reports ensure that information is collected and analysed consistently, throughout the supervisory agency and across the banking system.

The type and amount of information collected depends on the type of monitoring activity. For example, prior to granting a new banking licence, the supervisor may require:

- detailed plans by the applicant on how it will manage the business and the internal control environment they propose to establish;
- sufficient information to gauge the depth of management expertise;
- standard financial data; and
- biographical and financial information on the proposed owners.

Information collected and analysed for off-site surveillance typically includes routine periodic financial performance reports submitted by each institution. Important non-financial information, such as changes in management, external auditors or controlling shareholder(s), can be obtained through discussions with institution management, periodic evaluation of internal and external audit reports and from local sources or other regulators.

On-site examinations give the supervisor an opportunity to test the quality and scope of supervisory information submitted by each institution via periodic returns. They also permit the supervisor to collect information on and assess more subjective aspects of an institution's condition, such as the quality of its risk management and internal control functions.

2.3.4 *Supervisory responses*

Taking action to ensure that weaknesses identified during supervisory monitoring activities are corrected is another critical technique for implementing direct supervisory policies and procedures. In most cases, the range of actions that may be taken is established within the legal framework governing the supervisor's activities. The most radical measures include restricting an institution's powers, revoking its licence or closure. The supervisor should have the flexibility to choose among varied responses in any given situation, but should assure that institutions with similar problems are treated consistently. The supervisory response chosen should reflect the severity of the weaknesses identified and the supervisor's assessment of management's capability to correct them in a reasonable time.

2.3.5 *Organisational structure and operations support*

Effective supervision requires sufficient and qualified supervisory staff, an organisational structure that clearly promotes the supervisory goals, adequate management information systems to allow prompt and effective use of supervisory information and quality control mechanisms to ensure that staff achieve consistent application of policies and procedures.

Supervisory staff have responsibilities as varied as collecting and analysing financial information, developing policies and procedures, pursuing corrective actions initiated by the supervisor and communicating the supervisor's strategic plan, its goals and objectives, to the public. To ensure that it has sufficient and qualified staff, the supervisor must consider:

- its staffing needs (in terms of number and capabilities);
- the expertise of its staff (including training through in-house courses or outside sources); and
- its staff compensation and retention.

Supervisory management information systems are another important support component. Management information system needs can be divided into two major sub-systems:

- financial data or return information; and
- supervisory activity information.

Both systems need to be integrated to provide the supervisor with complete information about the risk profile of each institution and its financial performance. The financial data or return information system should collect data by institution. It should provide the supervisor with the ability to manipulate this data, including:

- ratio generation and modelling;
- comparable information for various time horizons for one institution and for a comparison group; and
- aggregate data for the entire sector.

The supervisory activity information system should collect data derived from all supervisory activities by individual institution, including information relating to the risk profile of the institution, supervisory responses, planning information (such as budgeted and actual work days) and other non-quantitative information of a confidential nature collected by the supervisor. The overall system should have capabilities that allow analysts to correlate and analyse information by institution and for the sector.

Operations support also includes assuring that staff achieve consistent application of policies and procedures. This requires close co-ordination between policy designers and implementing units, training of staff in new policies, and tools and testing for adherence with policies and procedures. Testing can be accomplished through a formal quality assurance function with a clearly defined framework and set of supervisory standards and processes, against which the quality of work completed can be judged. While the form of compliance with those standards and processes is important, the overriding focus of the function should relate to matters of substance.

2.4 Assessment methodology

In performing our assessments we reviewed external publications and internal policies and guidelines developed by the HKMA and held discussions with HKMA personnel at various levels to gain an understanding of the HKMA's supervisory process. We also conducted interviews with senior officials of banks and other local authorized institutions to ascertain their views of the HKMA's current supervisory process.

The extent to which the HKMA has fully implemented its supervisory process was assessed through the review of documentation supporting the supervisory activities conducted within six authorized institutions (case studies). Examples of each type of supervisory document, such as corporate profiles, on-site examination reports, off-site reviews and tripartite and prudential meeting minutes, and correspondence, were reviewed. We also held in-depth discussions with the HKMA personnel responsible for supervising those institutions, including both case officers and bank examination staff. These techniques gave us a clear understanding of the current supervisory processes and the implementation of supervisory policy.

2.5 Current profile of the HKMA

This section details our assessment of the HKMA's current organisational structure, supervisory tools and techniques, supervisory policies and guidelines, human resources, and of the quality and volume of the information it currently obtains. Our understanding of the HKMA's current supervisory process is based on our reviews of the HKMA's supervisory philosophy, strategic planning process, formulation of policies and procedures, supervisory monitoring, supervisory responses and its organisational structure and operational support.

Specific conclusions and recommendations are set forth in Section 2.8. In general, however, we believe that the HKMA's supervisory process has been effective in assuring a stable and competitive financial sector environment. From the banking survey and interviews we found that the HKMA's supervisors have a strong reputation, both domestically and internationally. Banking survey respondents indicated that the HKMA has contributed greatly to market developments such as the creation of RTGS and of a HK$ debt market through the issue of Exchange Fund bills and notes. Respondents also indicated that its prudential rules and practices provide a sound framework for the banking industry and that it properly identified and addressed risks in individual institutions during the supervisory process. Foreign supervisors also noted that the HKMA is a lead supervisor and contributes significantly to international policy development.

2.5.1 Supervisory philosophy

The HKMA has responsibility for the supervision of all entities conducting banking business or deposit-taking operations as specified in the Banking Ordinance. To carry out this responsibility the HKMA uses a supervisory approach based on a policy of continuous supervision through a combination of on-site examinations, off-site reviews and prudential and tripartite meetings. To implement this approach, the HKMA uses the internationally-recognised CAMEL[53] rating framework, which includes an evaluation of each institution's financial performance and an assessment of its management capabilities, which results in a summary rating that serves to guide the frequency and type of supervisory activity. The CAMEL framework is applied to all authorized institutions operating in Hong Kong, both local and foreign-owned.

Like other leading supervisors worldwide, the HKMA has adjusted its framework to incorporate the risks identified in its banking sector. Senior management of the HKMA strongly advocates risk-based supervision and has recognised the need to change and enhance the supervisory process in order to keep pace with changes in the financial sector.

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53 *CAMEL* is an internationally recognised framework for assessing Capital adequacy, Asset quality, Management, Earnings and Liquidity. An overall or composite rating is expressed through the use of a numerical scale of 1 through 5 in ascending order of supervisory concern.

2.5.2 *Strategic planning*

The HKMA's policy of continuous supervision was adopted in 1989 through published Guideline 2.1 and has been internally documented through guidance notes using the CAMEL framework. Adjustments to that policy to implement risk-based supervision are documented in the HKMA's Prudential Supervision in Hong Kong (December 1997) publication. This document was distributed to HKMA staff and is available to the public. The HKMA's supervisory philosophy is also communicated to the financial community in numerous speeches, articles and publications.

The risk-based supervision philosophy is also communicated to new employees during their introductory training. Communication to the remainder of the staff has been achieved through periodic internal meetings, and through the circulation of guidelines, circulars and guidance notes.

The HKMA has already undertaken a number of initiatives aimed at achieving risk-based supervision, including reorganising its Banking Supervision Department ("BSD"), establishing specialist teams and centralising some licensing and compliance activities. The HKMA has also identified systemic issues such as possible further deterioration in asset quality, due to declining property values and Year 2000 preparedness. Both of these were key issues in 1997 and have remained key targets of the HKMA's supervisory efforts during 1998. Furthermore, the HKMA has increasingly focused resources on those institutions perceived to be of higher risk.

2.5.3 *Formulation of policies and procedures*

The process for policy formulation supports the HKMA's current methods of supervision and enables progress to be made towards the full implementation of risk-based supervision. Policy guidance in the form of guidelines, guidance notes and internal circulars reflects international Basle Committee principles and their application to Hong Kong authorized institutions[54]. Guidelines are publicly available and enable the HKMA to communicate supervisory policy externally, while guidance notes and internal circulars provide staff with additional direction on policy implementation. All of these documents are available to supervisory staff in paper form and through the HKMA's database.

Survey results showed that 94% of authorized institutions considered that the prudential rules and practices of the HKMA provided a sound framework.

Systemic risk issues are an important focus in the HKMA's policy development process. The Banking Policy Department ("BPD") and the BSD have developed policies and procedures for systemic issues such as Year 2000 preparedness, property lending and

[54] The HKMA conducted a self-assessment of its compliance with the "Core Principles for Effective Banking Supervision"("Core Principles") issued by the Basle Committee in September 1997. The assessment revealed that the existing supervisory framework substantially complies with the Core Principles, except in three areas. The HKMA has already taken steps to bring the existing supervisory framework fully in line with the Core Principles. It intends to amend the Banking Ordinance in 1999 to address the deficiencies relating to controlling major acquisitions or investments by authorized institutions and disclosure of customer information to overseas regulators. The issue of parallel banking structure is being addressed through ring-fencing the institutions concerned in Hong Kong and appropriate discussions with other relevant supervisors.

taxi financing. Systemic concerns are communicated effectively, both internally and externally. All policies stress the importance of examiner flexibility and judgement during the supervisory process, and have proved to be adequate, as measured by the strength and stability of the banking sector.

The HKMA uses the CAMEL rating system and applies it to both locally incorporated and foreign-owned institutions. The current CAMEL framework is outlined in the internal Guidance Note No. 3/95, "Guideline on CAMEL Rating System". Guidance Note No. 3/95 addresses each of the CAMEL elements and sets out an evaluation matrix to assist the supervisory staff in assessing each individual component and to arrive at an overall rating.

Assessing an institution's risk management process is a factor for the *Management* component, but there is limited discussion within the Guidance Note on how the risk management process should be evaluated and how it applies to different areas of operations within banks. However, other Guidance Notes and the HKMA's On-site Examination Manual have addressed the need to review risk management processes, and some of the elements that should be reviewed, in materials relating to liquidity, derivatives, high-level controls and credit. Risk management is also addressed in the HKMA Guidelines on credit exposures, liquidity management, foreign exchange, country debt provisioning and derivatives.

The HKMA's policies, taken as a whole, provide varying definitions of the term *risk management*. This may be attributed primarily to the difference in dates of issuance and the changes in approach that have been applied to risk management at an international level. The most broad and recent definition of risk management is set forth in the Core Principles issued by the Basle Committee on Bank Supervision. This defines risk management as the system or process by which a bank effectively and properly identifies, measures, monitors and controls each of the material risks that it assumes.

Our review of the *case studies* showed that the CAMEL framework is consistently applied in all supervisory activities. HKMA analysts consider the individual risks to a bank under the CAMEL components and the adequacy and effectiveness of bank management's control of those risks. However, an overall assessment of all risk management processes within the institution was not always articulated in documents reflecting supervisory activities. For example, the off-site analyses included varying details about the evaluation of the risk management process[55]. Only one case (out of six) described the evaluation of the bank's risk management process. This was a complex institution and the level of detail provided the reader with a good assessment of the adequacy of the process, primarily focusing on derivatives activities. The other five cases contained limited descriptions of the risk management process or its effectiveness, even though some were also complex institutions. Discussions with case managers identified varying levels of understanding of risk management concepts and indicated that those managers rely heavily on the overall understanding of the institutions' activities by senior staff.

[55] The differences outlined above may be due to differences in the type of institution being reviewed, but without a further review of additional cases this conclusion cannot be confirmed.

Currently, adherence to HKMA policy is addressed by relying on individual division heads and periodic staff meetings and the establishment of the Banking Supervision Review Committee. The HKMA has instituted several initiatives over the past year to issue or revise guidance notes, increase the level of detail in supervisory documents and increase the frequency of meetings with the staff. The Executive Director (Banking Supervision) reviews most of the final documents (e.g. corporate profiles and on-site examination reports), which is a means of ensuring consistency among divisions.

2.5.4 Supervisory monitoring

The supervisory monitoring activities of the HKMA (off-site, on-site and licensing) are executed by staff from both the BSD and the BPD. The BSD was responsible for all the supervisory monitoring activities of the HKMA until 1998, when some of the licensing functions were transferred to the BPD. All off-site and on-site activities remain with the BSD.

Off-site activities

Off-site surveillance plays an important role in the HKMA's supervisory monitoring. The off-site surveillance function includes the development of an annual *off-site review*, a *corporate profile*, a *pre-on-site review*, prudential and tripartite meetings, country profiles, and in some cases, other ad-hoc documents and memoranda. The HKMA has developed standardised formats for the above mentioned documents[56]. Our case study review allowed us to evaluate the quality of off-site analysis performed by the supervisory staff, the manner in which analyses are communicated and adherence to established guidance notes and documentation formats by the HKMA's staff.

Offsite reviews

Off-site monitoring activities include sector reviews and institution-specific reviews. Formats for different types of reviews follow a standardised layout and content, which can aid in consistency and comparison between different authorized institutions' documents.

BPD staff principally perform sector surveillance. Within BPD, the Banking Statistics Unit is responsible for providing the HKMA's management with sector-wide statistics, including trends in profitability, asset quality and capital strength of the banking sector. Other BPD units are responsible for such sector issues as Year 2000 preparedness, derivatives activities and property market analysis. Sector reports are available to the HKMA's senior management and to individual case officers.

Sector issues can be identified within the BSD and special examinations can then be performed to address and understand their significance. For instance, when there were indications that banks had relaxed their underwriting criteria for residential mortgage

[56] These formats are included in Guidance Note 1/92 – Agenda for Tripartite Meetings, 2/95 - Standardised Formats for Off-site Reviews and On-site Examination Reports, 4/96 - Format of Internal On-site Examination Report, and 6/97- Preparation of Corporate Profile for Authorized Institutions.

loans in early 1997, examination teams were deployed to a number of institutions active in this line of business to gauge the validity and significance of this concern.

An off-site review of each institution is conducted annually. It covers each component of the CAMEL framework included in Guidance Note 3/95 and documents the support for the assigned CAMEL rating. This review includes a comprehensive analysis of financial performance, based on established ratio and trend analysis, for both the institution and its peer group. In addition to the prescribed format, examiners are encouraged to add additional details to address specific supervisory concerns with the institution.

The annual off-site review serves as a basis for the prudential meeting with authorized institution management. During the prudential meeting, the HKMA and bank management discusses past performance and strategic outlook/plans of the institution for the up-coming year. Off-site case managers are also required to record any agreements achieved during prudential meetings in a letter to the authorized institution. The case manager follows up on findings and recommendations agreed to during these meetings.

A *pre-on-site analysis* can be separate from the annual review and is used to set the scope of an on-site examination by highlighting areas of weakness and risk in the institution that on-site examiners should review or verify.

The HKMA's staff also hold yearly tripartite meetings with institutions' management and their external auditors. Guidance Note 1/92 establishes a sample agenda format to be used as a checklist in preparing for the tripartite meeting and encourages examiners to tailor the agenda to suit the particular circumstances of each case. Our case study review disclosed that little divergence from the guidance format was undertaken on locally incorporated non-complex institutions. A small number of external interviewees responded that the prudential and tripartite meetings do not always focus on significant risks. These comments may arise from the use of the suggested format since it addresses very specific topics, without explicit mention of risks or risk management systems.

In addition to the prudential and tripartite meetings held with all authorized institutions, selected local banks make special presentations to the HKMA senior management focusing on the institution's strategic plans for the upcoming year. Risks identified during the meetings are included in the scope of subsequent analyses. Other significant off-site monitoring activities include:

- the review of Section 59(2) reports and reports required by Section 63(3) and Section 63(3A) of the ordinance prepared by external auditors; and
- ongoing monitoring of market developments that could affect the institution, such as newspapers, audited financial statements or press releases by the authorized institutions.

All of the activities performed off-site, in aggregate, provide the HKMA with an understanding of the safety and soundness of each authorized institution.

To conduct some of its institution-specific off-site activities, the HKMA co-ordinates with other local supervisors. For example, under an agreement with the Securities and Futures Commission ("SFC"), the HKMA's securities specialists determine compliance with SFC regulations and requirements by authorized institutions that conduct securities activities directly. This arrangement, initiated in 1995 and documented in a written memorandum of understanding, has proven effective to date. Both the HKMA and the SFC retain the ability to exercise their respective authority to set regulatory requirements (such as capital and liquidity requirements) and to receive prudential information. Co-ordination and information sharing between the HKMA and the SFC is achieved through periodic meetings and ongoing discussions of market participants. Likewise, the HKMA has an information sharing arrangement with the Office of the Commissioner of Insurance, although it is less formal than that with the SFC. This arrangement balances the fact that institutions' insurance activities are required to be segregated in a separate subsidiary with the HKMA's supervisory awareness that functional segregation does not always result in risk segregation.

Finally, the HKMA's management has recognised the need to have knowledge of the home countries of its foreign-owned authorized institutions and to co-ordinate its efforts with those of the home country supervisors. Case officers in charge of a given country prepare country analyses. These analyses follow a standard format but can differ in depth, depending on the case officers' experience, the availability of information and the relative importance of the country being analysed to the Hong Kong financial sector. These analyses are circulated across divisions on a needs basis and are not included in the HKMA's shared automated database.

Senior management at the HKMA have working relationships with the principal supervisory bodies of financial institutions with local representation. They have also established Memoranda of Understanding or other types of agreements with:

- the Financial Services Authority ("FSA") in the UK;
- the People's Bank of China;
- the Autoridade Monetária e Cambial de Macau (Macau); and
- the New York State Banking Department in the US.

Although no formal agreements have been concluded with other foreign supervisors, informal arrangements exist and ongoing cordial discussions take place. This is particularly evident in the regional efforts the HKMA has sponsored:

- to try to achieve common understanding of supervisory approaches;

- to share supervisory techniques and develop common solutions to regulatory issues through EMEAP[57]; and

- participation in the Bank for International Settlements ("BIS").

Corporate profiles

The corporate profile is a standardised document that captures essential information for each authorized institution. The document contains a factual description of the institution, its organisational structure, ownership and principal activities. It also summarises the HKMA's recent supervisory activities, its objectives and its plans to address outstanding issues. The corporate profile serves to document the key elements needed to understand the authorized institution's operations and the HKMA's current supervisory concerns. The document is updated quarterly or more often if the case officer notes changes.

Regulatory reporting

The HKMA has a comprehensive set of regulatory returns from which to conduct bank-specific and systemic analyses. The BPD is responsible for reviewing and reassessing the usefulness and applicability of all standardised returns on a periodic basis. The latest comprehensive review of returns was performed in early 1997 in consultation with market participants. Revisions became effective in April 1997. Some additional refinements are currently being contemplated to the standard returns as part of the ongoing review process. Based on survey results, 85% of authorized institutions agreed that regulatory returns collect sufficiently comprehensive and detailed information to provide a complete picture of their institution's risk profile.

The HKMA also actively tries to identify systemic risks and uses ad-hoc surveys to gather data not specifically addressed in the standardised returns. These surveys are sent to a selected group of institutions and have included issues such as property related lending and taxi financing. Both of these sectors have been affected by reduced asset values. Some of the ad-hoc surveys have been in existence for over a year (e.g. the IRRs survey). Although ad-hoc surveys are an effective supervisory tool, they involve considerable work on the part of authorized institutions. For example, based on survey results, 40% of respondents believed that ad-hoc reports were burdensome. In particular, 81% of local banks believed this was the case.

On-site activities

On-site examinations are an integral part of the HKMA's supervisory process and may be full-scope or targeted. Recently, most examinations have been targeted, to review specific issues or areas identified by CAMEL indicators, or trends noted in returns and

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[57] EMEAP is an executive level meeting of 11 central banks and monetary authorities from the Asia Pacific Region (Australia, China, Hong Kong, Indonesia, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore and Thailand). Its primary objective is to strengthen co-operation among member central banks. The group meets regularly on an informal and confidential basis.

systemic targets. For example, during 1998, the focus has been on asset quality issues as a result of the Asian crisis, and on sector issues such as Year 2000 preparedness.

The frequency of on-site examinations varies depending on the size, financial condition and the management and systems quality of the institution concerned. For foreign-owned institutions, the extent and frequency of examinations by the institution's head office and home country supervisor is also taken into account. At present the HKMA's intended frequency for on-site examinations is yearly for locally incorporated institutions, and every 18 months to three years for foreign-owned institutions. The composite CAMEL rating assigned to an institution strongly influences its examination frequency. HKMA management has the ability to change the frequency or conduct an immediate examination if conditions warrant. The HKMA's management currently tracks commencement and completion dates of supervisory activities to assess overall workloads and track achievement of examination targets.

The on-site examination process is supported by detailed procedural manuals, standardised report formats and internal guidance notes. The HKMA made a major step towards enhancing the on-site examination process with the adoption of the revised on-site examination manual in August 1997. The manual is geared towards the evaluation of a bank's high-level controls, asset quality in diverse loan portfolios, treasury operations and liquidity. There are also chapters devoted to explanation and assessment of most specific loan products, such as taxi loans, residential mortgages, credit cards, personal loans, trade financing and share margin financing. The procedures contained in the manual guide the examiners to conclude on the overall quality of portfolios reviewed and level of adherence to the authorized institution's internal policies. The procedures also address testing for compliance with HKMA guidelines.

On-site examination results are presented in a detailed internal on-site examination report that follows closely the format used in the version that is provided to authorized institution management. The internal report includes the CAMEL rating justification and supervisory actions planned, while only the composite CAMEL rating is disclosed in the report provided to the authorized institution. Survey results show over 70% of respondents agree that:

- on-site examiners are able to indentify and focus on material risks and concerns of their institutions;
- examimination reports provide sufficient basis and guidelines for implementing corrective actions; and
- examination reports objectively document the institution's condition, risks and prospects for areas under examination.

Licensing activities

The HKMA has well developed and clear external policies governing licensing activities, including the Guide to Applicants. The guide covers specific documents and information to be submitted by the applicant. It includes information to determine the plans for the new activity, background and financial information on principal owners and management, and financial projections. No pre-defined format is required for financial pro-forma information.

To ensure that policy application is consistent, a Banking Supervision Review Committee was established in 1996. This committee meets on an *as needed* basis to consider recommendations on authorization matters under the Banking Ordinance. This committee is comprised of senior management from the HKMA and seeks to assure consistent treatment of all applications.

In the past, most licensing activities centred on new bank licences or upgrading of licence status. Merger and acquisition activity was covered in a document entitled *Merger, Take-overs or Restructuring of Authorized Institutions*, issued in 1992. This letter governs procedures and criteria to be followed in merger and acquisition activities. As merger and acquisition activity has escalated over the past year, a new Guidance Note was issued in August 1998. This Note supplements its predecessor by addressing legal and operational issues.

In the past, case officers were responsible for processing licensing activities, including new applications, upgrading of licences, and mergers and acquisitions, as part of their overall supervision responsibilities. During 1998, management recognised the need to centralise some of the more standardised aspects of the licensing process. A team within the BPD centrally processes all applications for licences. Mergers and acquisitions have been centralised in a team within the BSD. This has allowed case officers to focus on their ongoing supervision of authorized institutions.

2.5.5 *Supervisory responses*

The HKMA is vested with powers to limit the operations of authorized institutions, including placing restrictions on business, increasing regulatory requirements, removing institution officials and, the most severe, revoking the institution's licence.

Generally, the HKMA achieves corrective action to identified weaknesses through the use of informal actions, rather than official powers. This includes discussions with bank management, letters indicating corrective action expected and timeframes for completion, as well as letters informing bank management of temporary limitations on their operations. In each case, the HKMA considers the severity of the situation and decides whether other actions using the powers of the Banking Ordinance are advisable.

Under the Banking Ordinance, the HKMA has a variety of actions available to it, including:

- imposing conditions on an institution's licence;
- ordering an institution to take actions it deems necessary or operate in accordance with advice from an HKMA-appointed advisor;
- appointing a manager to manage the institution; and

- requiring a bank to take such remedial action as the HKMA may require to meet statutory capital or liquidity requirements, or such higher requirements as the HKMA may impose.

In some cases, managers and directors of institutions may also be subject to monetary fines of up to HK$2million and imprisonment for up to five years.

An internal document called *Contingency Plan for Handling a Banking Crisis* identifies the possible actions which the HKMA may take in the event of a banking crisis. For institutions rated “3” or worse, a monthly report called “AI with Composite Rating of 3 or Below Report” must be submitted to the HKMA’s senior management. This report helps HKMA senior management track the status of corrective actions agreed to with these institutions. Follow-up of supervisory concerns is the responsibility of the HKMA senior manager in charge of the particular institution. HKMA senior management has instituted a reporting mechanism for all institutions, to assure timely and appropriate follow-up of all exceptions noted in on-site examinations. Additionally, the weekly progress report has been enhanced to include a section that discusses follow-up on recommendations.

2.5.6 Organisational structure and operations support

This section of our review focuses on the structure, division of responsibilities, use of specialists and support areas in the HKMA.

Organisational structure

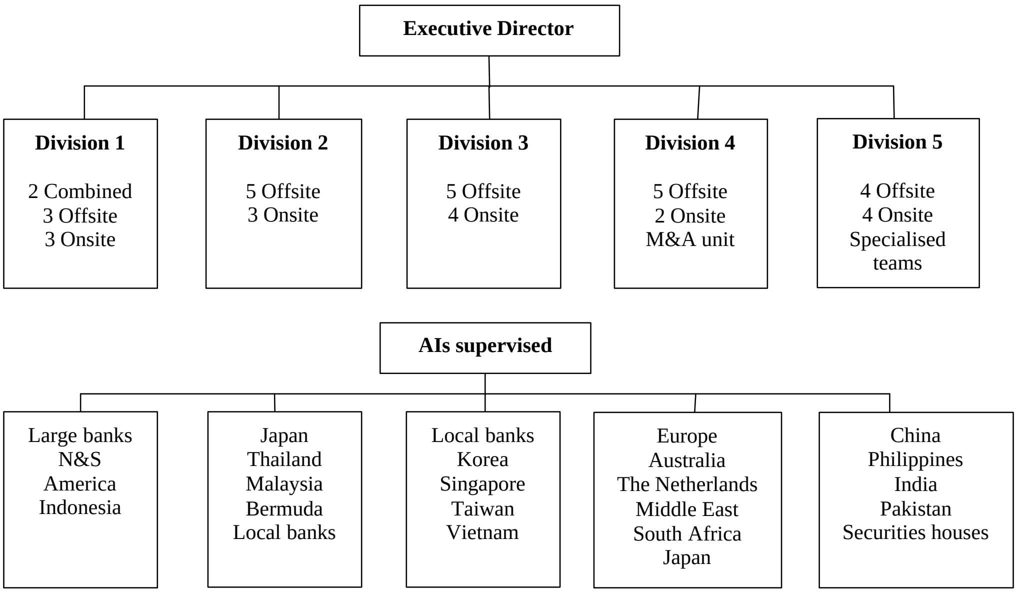
Under the current organisational structure, responsibility for the conduct of banking supervision is divided between two departments of the HKMA:

- the Banking Supervision Department (“BSD”); and

- the Banking Policy Department (“BPD”).

The BSD is responsible for the day-to-day supervision of all authorized institutions. In May 1997, the BSD was reorganised to improve its efficiency and productivity. Under the existing structure, the BSD is divided into five divisions as depicted in Chart 2.5.1 below:

Chart 2.5.1 Organisation structure of BSD



Source: *HKMA information as at 29 September 1998*

Large institutions are assigned to Division 1, which is comprised of two "combined teams" and separate on-site and off-site teams. Special teams for derivatives, securities and Year 2000 examinations are included in Division 5.

The BPD is responsible for the development of the policy framework within which supervision is carried out. BPD consists of the Banking Policy Division and the Banking Development Division. The responsibilities of the Banking Policy Division include derivatives modelling, banking returns, development of regulatory policies and banking statistics. The responsibilities of the Banking Development Division include legal matters related to the Banking Ordinance, Year 2000 issues, compliance with the Code of Banking Practice, licensing policies, consumer complaints, processing of licensing applications and the provision of secretariat services to the Banking Advisory Committee and the Deposit-Taking Companies Advisory Committee. The Information Technology Division and the Legal Department of the HKMA support both banking departments.

BSD and BPD have recognised the need for "specialists" and have created several units/teams to address areas of specialised risks. These include:

- ***Derivative and modelling teams*** - the derivatives and modelling teams currently consist of two senior managers, two managers and three assistant managers. This group is divided into a three-person modelling team with the remainder (four people) in the derivatives examination teams. The teams are responsible for reviewing the derivatives activities of all authorized institutions.

- ***Securities team*** - the securities team consists of one senior manager (shared with the examination team for derivatives), one manager and two assistant managers. It is responsible for the examination of securities activities carried out within the legal structure of authorized institutions. The team members were provided with SFC training and use similar procedures as the securities supervisor.

- ***Compliance/consumer protection*** - two units within the BPD currently handle consumer protection - the Public Registry and the Banking Development Division. The Public Registry is responsible for the debt collection complaint hotline. The Banking Development Division has a unit that is responsible for ensuring compliance with the Code of Banking Practice issued in 1997. Recently, an additional unit within the Banking Development Division was created to handle general complaints against individual authorized institutions. Case officers in the BSD previously handled these complaints.

Specialist teams for securities and derivatives are integrated into on-site examinations and activities co-ordinated between the divisions. No established guidance exists on how specialists will be integrated in the on-site examination process. Informal co-ordination must take place at the division head level, followed by notification of the appropriate case officer.

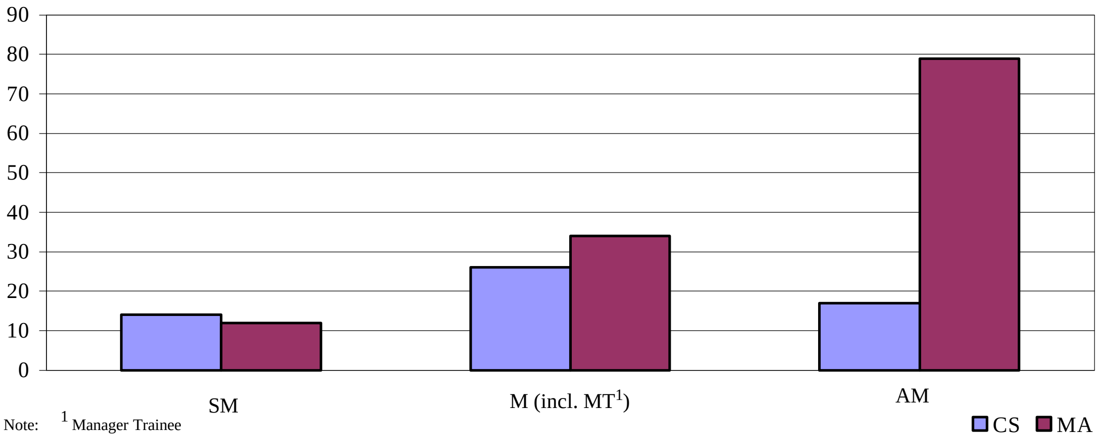
The HKMA has used external auditors to evaluate the bank information control systems within authorized institutions, by means of Section 59(2) reports. The increased emphasis on assuring Year 2000 preparedness due to the immediacy of the potential problems has required the HKMA to use its derivatives team specialists, together with other generalists to create Year 2000 special examination teams. To date, ten people in BSD have been assigned to this effort. In addition, five people in BPD have been charged with the responsibility to coordinate the HKMA's attempt to tackle the Year 2000 problem.

Staffing, performance management and career development

The HKMA was created in 1993 by combining the Office of the Exchange Fund and the Office of the Commissioner of Banking. Civil servants working in the two offices were transferred to the HKMA and were offered an option to be employed on new employment terms, created to be comparable to the private sector. Since some civil servants opted to remain on the same employment terms, there exist two types of employment terms within the HKMA. They are commonly referred to as Civil Service Terms ("CS") and Monetary Authority Terms ("MA"). In the two banking departments, all staff at the level of division head or above are employed on Monetary Authority Terms, while all Civil Service Terms staff are at the level of assistant manager ("AM"), manager ("M") or senior manager ("SM").

Chart 2.5.2 below shows the number of staff by rank and by type of employment terms in the two banking departments. As the name suggests, remuneration packages for employees under the Civil Service Terms are exactly the same as other civil servants and their salaries are adjusted in accordance with the pay scale of the government. This is a point-based system based on cost of living, seniority and market conditions. On the other hand, pay adjustments for employees under the Monetary Authority Terms is based more on performance and market conditions[58].

Chart 2.5.2 Number of staff in banking departments by rank and employment terms



Note: [1] Manager Trainee
Source: *HKMA data at 31 August 1998*

The HKMA's current structure provides, fully, for only limited upward mobility. Promotion to the manager level requires meeting certain job expectations and having a position available. Reviews of several managers' and assistant managers' evaluations disclosed varied responsibilities and tasks. These job objectives and responsibilities are clearly communicated to the individual at the beginning of each performance year. There is, however, no clear structured path to assist employees in determining how they can achieve further promotions.

Current job titles and the roles to which they relate do not form a logical or effective career path. In particular, assistant managers and managers can take differing levels of responsibility. The limited prospects of upward mobility and a strong economic environment contributed to high turnover within the first two to three years of service until this year, principally among those in the assistant manager category employed on MA Terms. The turnover rates are directly linked to banking sector opportunities, which have substantially reduced during 1998. Although this is a problem also encountered by supervisors in other countries, turnover appears high by international standards at 20-27% for 1997. However, the turnover rate is in line with Hong Kong banking sector statistics. In an attempt to address this problem, during 1997 senior management increased the number of manager positions by 14. This has alleviated the problem in the short-term.

Given the limitations of the study, we were not able to perform a salary comparison analysis with the financial sector. However, the HKMA performs ongoing salary comparison surveys in an effort to achieve comparability with the sector. Wyatt

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[58] It was not within the scope of this study to evaluate the relative performance of the two groups of employees.

Consultants completed the last HKMA salary survey in February 1998 with pay adjustments effective in April 1998.

Training

The HKMA estimates a three-year time frame for newly hired employees to achieve proficiency in bank supervision skills and knowledge. All new employees are required to attend a six-week introductory training course. The course provides a good orientation and introduction to supervisory subjects. This formal training is complemented through rotations consisting of an 18-month assignment in off-site surveillance teams, followed by 12-months in on-site examination teams.

Staff (after one year of service) can also attend the Master of Science in Banking programme ("MSc"). This is a two-year course sponsored by the HKMA and accredited by the City University of Hong Kong. The course is specifically designed for the supervisory staff of the HKMA and was initiated in 1997. Other formal training is available both externally and internally, but courses can vary from year to year.

Outsourced training, however, does not appear to be sequenced or structured in a systematic way over an employee's career. In addition, training that is outsourced or conducted internally does not appear to be fully integrated with on-the-job training.

Our interviews with the human resources department revealed that there has not been a formal assessment of training needs. In addition, the training budget provided to us lacked the level of detail useful for planning and budgeting. Further, our interviews revealed that supervisory staff believe that there is a need for additional structured formal training, after the introductory course.

The HKMA has used external secondments to overseas supervisors. In the past, the HKMA sent one staff member to the Bank of England every year. This year the HKMA has arranged for one staff member to be seconded to the Federal Reserve Bank of New York. Secondments to local large institutions have not been used due to privacy and legal issues.

Management information systems ("MIS")

Our study included a review of the supervisory tools and information systems available to supervisory staff. The main objective of our review was to determine the effectiveness of such tools in the supervisory process. Our review did not assess the adequacy of the technological resources (hardware and software), but rather the ability of the systems to provide adequate and meaningful information to the various supervisory levels.

The HKMA's Enhanced Prudential Supervision System ("EPSS") was created in 1990, to provide the HKMA with an efficient real time system for its role as supervisory authority of Hong Kong's banking community. The primary objectives of the system are:

- to maintain information on Hong Kong's authorized institutions;
- to collect and store periodic financial and statistical returns from those institutions;
- to produce supervisory statistics; and
- to enable the production of analytical reports as and when required.

The system has accomplished these objectives and allowed the HKMA to gather substantial financial data on all authorized institutions. The collection mechanism has changed since the creation of the system to keep pace with technological advancements. The latest enhancement allows statutory returns to be submitted by electronic transmission. Data from the returns included in EPSS can be downloaded into other supervisory documents, such as the corporate profile and the off-site review. Trend analysis of individual bank data and systemic analysis for a range of institutions (on individual return line items) can also be generated. Information from ad-hoc surveys, however, is not part of the system database.

Some of the ad-hoc survey information (such as the monthly IRR survey data) is currently maintained on a PC hard drive, thereby exposing the HKMA to loss of data or the need to reconstruct the database, should the PC database be damaged or erased. These surveys are currently paper-based and require manual input before data can be manipulated.

Data contained in EPSS can generate standard ratio calculations in established formats. However, modelling needs require examiners to download data and create spreadsheet models that may use different scenarios across divisions. There are efforts to standardise some model scenarios. For example, there is now a standardised model to analyse the impact of loan loss provisions on the Capital Adequacy Ratio, and models to assess liquidity levels under stressed situations. Both of these models were developed since the Asian crisis in 1997.

The EPSS also has a database for supervisory information that can be accessed directly. The Records Office within the Public Registry updates this non-financial data. The Records Office is also responsible for collecting and registering all statistical information, distributing consolidated statistical data to the Search Office and updating EPSS non-financial records. The current procedure requires the case officer to submit non-financial data fields to this unit for update.

During our review we noticed that several fields of the EPSS system are not currently used or updated on a regular basis, including CAMEL rating information, timesheet information; and doubtful/KIV ("keep in view") debtors.

The individual case officers maintain these data files on separate personal computers. The Executive Director of BSD has recently requested a review of this situation, to determine the incomplete database elements.

2.6 Comparison with benchmark countries

In consultation with the HKMA, selected Australia, Malaysia, the Netherlands, Singapore, the UK and the US as benchmark countries for comparing supervisory processes for a variety of reasons, such as their similarity to the Hong Kong banking sector, the strength of their supervisory process, their institutional capabilities and their international reputation. The supervisory agencies in these countries have confronted (or are facing) challenges similar to those facing the HKMA, such as the advent of new technologies, product innovation, rapid globalisation and intensified competition in the financial services industry. Although none of these countries has faced the challenge that the economic integration with the People's Republic of China brings to Hong Kong, some have had to address other regional issues, such as the effect of the *Euro* and the establishment of the European Union and, for the US, the economic integration mandated by the North American Free Trade Agreement.

The benchmark analysis that follows considers the same processes used in the assessment of the HKMA. Our comments are supported by discussions with senior officials of the benchmark countries and desktop research of documents provided by the regulators or available to the general public. Due to the scope of our analysis, the assessments included in this section do not reflect the extent of implementation within any supervisory agency. Further analysis would also be necessary to accurately measure the effectiveness of the supervisory processes within each country.

2.6.1 Supervisory philosophy

In response to the challenges of a changing banking environment, supervisors in all of the benchmark countries are redefining their supervisory approaches to focus more explicitly on the risks banks undertake and the methods used to identify, measure, monitor and control them. An assessment can then be made on the likelihood that financial institutions are managing and will continue to manage such risks effectively in the future[59]. For most supervisors, a risk-based supervisory approach is a shift in emphasis away from assessing past results to determine a bank's current condition, toward assessing its current processes to determine the bank's likely future trend in condition. Risk-based supervision also helps supervisors better allocate their resources, thereby ensuring that significant risks within each institution (and system-wide) are identified and receive appropriate attention.

Within the benchmark countries, supervisors have approached risk-based supervision in a variety of ways. For example, in 1996, the Office of the Controller of the Currency ("OCC") in the US developed *Supervision by Risk*, which defines nine types of risk exposure (credit, interest rate, liquidity, price, foreign currency translation, transaction, compliance, strategic and reputation). The OCC requires examiners, for each type of risk, to assess the level of exposure, the quality of risk management and the direction of risk. These assessments are used to determine each institution's risk profile, which forms the basis for the development of an institution-specific supervisory strategy for

[59] Other supervisory responses, to these and other global trends affecting banks and bank supervision, are addressed in Section 2.7.

the coming supervisory cycle (12 to 18 months, depending on the size, complexity and risk profile of the institution).

Somewhat similar is the UK's RATE[60] framework, which is designed to identify and evaluate risks in institutions so that the Financial Services Authority ("FSA") can customise its supervisory activities to each institution's risk profile. The RATE framework generally covers each of the risks assessed for purposes of assigning CAMELBCOM[61] ratings, but where CAMELBCOM focuses on condition, RATE focuses on institutions' risk management practices.

Australia, Malaysia and Singapore use either the US or UK model as the foundation for their risk-based approaches. The Netherlands, which has been very proactive in developing risk-based supervision, reviews the risk assessment processes developed by each institution to gauge their effectiveness for identifying and quantifying risk and examines the institution's compliance with its own processes. The Nederlandsche Bank stresses that individual bank management teams are responsible for ensuring proper risk controls. In addition, the Nederlandsche Bank has targeted generalised risks such as credit, interest rate, market, legal and operational risks across internationally active local institutions, and reviews these exposures on an ongoing basis. Each institution, that represents a systemic risk to the financial sector, has specific supervisory strategies developed based on its risk profile.

These contrasting approaches demonstrate that supervisors in different countries can and should fine-tune the concept of risk-based supervision to reflect the nature and size of the institutions supervised and the markets in which they operate. The more standardised processes of the OCC's *Supervision by Risk* reflect the large number of banks subject to OCC supervision, while in the Netherlands the number of locally incorporated regulated banks is much smaller. Even within a country, different methods of implementation may be appropriate. For example, risk assessment procedures in the US and the UK take into account differences among institutions, such as complexity or size (e.g. large banking groups versus non-complex banks).

2.6.2 Development of strategic plans

All of the benchmark countries engage in some type of strategic planning, although the formality of the process and the resulting plan varies. The Netherlands, the UK, and the US have a planning process documented by formal written strategic plans, with timeframes and milestones. Other countries have yet to formalise written strategic plans that detail the bank supervisory agency's long-term goals, although Australia and Singapore are currently preparing such tools.

In most of the benchmark countries, written strategic plans are internal documents not available to the public. In contrast, the OCC publishes its strategic plan on its website. Nonetheless, all supervisors recognise the need to explicitly articulate their approach

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[60] RATE refers to risk assessment, supervisory tools and evaluation. The RATE framework was developed by the Bank of England in 1997 and carried over to the banking supervision activities of the FSA.

[61] CAMELBCOM is an evaluation of Capital, Assets, Market risk, Earnings, Liabilities, Business, internal Controls, Organisation, and Management.

and objectives to their staff and the public at large, and have prepared public documents that communicate their strategic vision, goals and objectives. Examples of such documents include:

- in the UK, The Objectives, Standards and Processes of Banking Supervision, Supervision and Surveillance Department (Bank of England, February, 1997) and Risk Based Approach to Supervision of Banks – Financial Services Authority (FSA, June 1998); and

- in the Netherlands, Supervision of the banking system by the Nederlandsche Bank (Nederlandsche Bank, 1997).

The US, particularly the OCC, provides a good model of a written strategic plan (*Office of the Comptroller of the Currency – Strategic Plan FY 1997-2002*). The purpose of this document is to communicate the mission and vision of the OCC to all employees and other stakeholders, set strategic goals and objectives over a five-year horizon and establish performance measures to assess the achievement of long-term goals. It addresses implementing *Supervision by Risk*, developing requisite technology and skill capabilities and improving internal communication.

2.6.3 Formulation of policies and procedures

Recent policy initiatives in the benchmark countries have involved:

- implementing risk-based supervision;

- ensuring functional supervision among supervisors within the country; and

- ensuring co-ordination with bank supervisors in other countries.

In the light of their shifts to risk-based supervision, supervisors in the benchmark countries have reassessed their current policies and procedures and are enhancing them or developing new ones to address all of the significant risks in a given market, and to provide supervisory staff with a systematic approach to risk assessment. In the US, the OCC has developed core assessment standards for each of its nine risk categories, which are essentially issues that examiners must consider when making judgements about the level of risk exposures (high, moderate or low) and the quality of risk management (strong, satisfactory or weak). Core assessment standards for credit risk, for example, include changes in underwriting standards and the volume and extent of exceptions to or overrides of underwriting standards[62]. Conclusions reached in the core assessment process inform judgements on the aggregate risk for each category (a summary judgement about the overall level of supervisory concern relative to each risk) and the

[62] See Comptroller's Handbook, *Large Bank Supervision* (OCC, July 1998).

direction of risk (decreasing, increasing or stable), which are in turn the basis for each bank's risk profile[63]. As noted above, risk profiles are used to determine the OCC's supervisory strategy for each bank and to allocate staff and other resources accordingly. Examiners must update large banks' risk profiles at least quarterly (although they may not complete a full core assessment each quarter) using off-site analysis and on-site testing and verification as they deem necessary.

The US CAMELS[64] rating system has also been revised to reflect risk-based supervision, to increase the emphasis on the quality of risk management for each component and to list the types of risks that must be considered in assigning each component rating.[65] Today, the risk-based assessment and CAMELS rating systems are used in tandem. In general, the CAMEL component and composite ratings told (and currently tell) institutions how US supervisors view their current financial condition, operations and compliance with laws, regulations, policies and other guidance, based primarily on examiners' reviews of transactions and bank policies, procedures and practices. In other words, where the bank is now and how it got there. In contrast, risk-based supervision is designed to help the supervisor determine the likely future condition of each bank, so that the supervisor can more effectively develop supervisory strategies and deploy its supervisory resources. Clearly, there is some overlap between the two systems. Many of the factors that must be considered in assigning CAMELS ratings are the same as those used for making risk assessments. In the US, at least at present, the fact that the systems overlap has been used to support retention of the CAMELS system (on the grounds that developing the information necessary to assign CAMELS ratings subjects banks to no greater supervisory burden) and the systems are seen as complementary.

For the *Capital Adequacy* component, for example, examiners are now instructed that institutions are expected "…to maintain capital commensurate with the nature and extent of risks to the institution and the ability of management to identify, measure, monitor and control these risks. The effect of credit, market and other risks on the institution's capital should be considered when evaluating the adequacy of capital." For *Asset Quality*, examiners are instructed to consider credit risk and "…all other risks that may affect the value or marketability of an institution's assets, including . . . operating, market, reputation, strategic or compliance risks." Evaluation factors for the management component were also revised, to include "The ability of the board of directors and management, in their respective roles, to plan for, and respond to, risks that may arise from changing business conditions or the initiation of new activities or products". "The adequacy of, and conformance with, appropriate internal policies and controls addressing the operations and risks of significant activities" and "The accuracy, timeliness and effectiveness of management information and risk monitoring systems appropriate for the institution's size, complexity and risk profile".

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63 For large banks, the OCC uses a risk matrix to guide examiners in assessing aggregate risk in each risk category. The matrix is a grid with quantity of risk (low, moderate or high) on one axis and quality of risk management (strong, satisfactory or weak) on the other. According to the matrix, for example, *strong* quality of risk management and *low* quantity of risk translates to a *lowest* aggregate risk assessment. OCC examiners can consider risk-mitigating factors that may not be directly reflected in the quality of risk management, or quantity of risk assessments (such as the presence of insurance).

64 The CAMELS rating system considers Capital adequacy, Asset quality, Management, Earnings, Liquidity and Sensitivity to Market Risk (see Federal Register 67,021 19 December 1996, announcing changes to the rating system).

65 Prior to the advent of risk-based supervision, bank supervisors in the US relied exclusively on the *CAMEL* rating system (the sixth component, *Sensitivity to Market Risk*, was added after, and partly in response to, risk-based supervision).

A second policy initiative involves ensuring that similar risks are assessed in a similar fashion, regardless of the primary business line of the subject entity and its primary supervisor (i.e. banking, securities or insurance). Australia and the UK have addressed the need to harmonise the policies and procedures across these different functional areas by establishing separate consolidated regulators. In the other benchmark countries, which have maintained functional or separate supervisors for these activities, strong efforts are evident to co-ordinate with the other local supervisors in the oversight of conglomerates and financial groups. These efforts include written agreements among supervisors to exchange information on a periodic basis, supplemented by the development of strong relationships and informal meetings.

The third challenge for supervisors in the benchmark countries has been to establish the same type of inter-agency co-ordination with foreign supervisors. Supervisors in the Netherlands, the US and the UK have established, at a minimum, working relationships with supervisors in other major countries. In countries where their banks have a substantial presence, these supervisors have entered into memoranda of understanding with the regional supervisory group; further, these supervisors are also seeking to enter into written agreements with supervisors in countries where their banks have significant exposures or have a major operation. Finally, participation in international fora such as committees established by the BIS provides for a common understanding of issues and cordial relationships among supervisory agencies, even for those countries with which formal arrangements have not been finalised.

We acknowledge the HKMA's current level of effort to establish bilateral Memoranda of Understanding with other supervisors and regulators and to develop working relationships as a basis to provide a framework for co-operation in the future. Such resource commitment needs to continue to ensure that the approach and progress to regulatory co-operation is maintained. We also encourage the information sharing efforts that exist within the regional counterparts and believe that similar efforts should be emphasised with the other lead regulators.

2.6.4 Supervisory monitoring

Off-site surveillance

Faced with changing market conditions and personnel constraints, supervisors in each of the benchmark countries are emphasising off-site surveillance, to assess the condition of institutions and to develop supervisory strategies for institutions. All supervisors require institutions to submit periodic financial returns. Supervisors also collect and analyse non-financial data, such as reports submitted by institution management to the institution's board of directors, audit reports and other summary information related to internal controls. The OCC, for example, develops a database of *core knowledge* about each large institution subject to its supervision. In this database, examiners record their judgements about such issues as the institution's management depth and style, culture, risk tolerance, supervisory history, markets, products and activities, and applicable economic conditions.

Supervisors have also recognised that their information needs may vary, based on an institution's size or complexity. For large or complex institutions, for example, the Netherlands complements its regular return information with bank-specific information, particularly internal bank management reports. In conjunction with its implementation of risk-based supervision, the FSA in the UK also anticipates requesting additional bank-generated reports to complement their returns.

While the majority of benchmark countries perform ratio analysis and peer group comparisons, some countries still do not have a fully automated process. In addition, only the Nederlandsche Bank indicated that its automated systems provided for analysts' modelling capabilities. Other countries stated that their systems have limited or no financial modelling capabilities, but that they are working to develop new databases and supervisory tools to support risk-based supervision. Indeed, each of the supervisors is enhancing its off-site surveillance capabilities in the light of the shift to risk-based supervision, and several of the benchmark supervisors are revising their regulatory returns and public disclosure rules.

On-site examinations

Supervisors in all of the benchmark countries are changing their procedures for on-site examinations to become more risk-focused, although the types of changes vary. Supervisors in some countries, such as the US, are decreasing the overall level of transaction testing and conducting more targeted reviews to evaluate risk management capabilities and internal control systems. The UK, historically reliant on off-site monitoring, is increasing its use of on-site examinations under the RATE framework, to better assess the quality of institutions' risk management processes and internal controls. The Netherlands and Australia put strong reliance on internal risk management processes and reports throughout the supervisory activity cycle, and target specific areas of concern during on-site examinations.

The supervisors also continue to use on-site examinations to test the validity and scope of information received for off-site analysis, and to supplement it if necessary, to address weaknesses in timeliness and reliability of regulatory returns from banks. For example, supervisors in Malaysia and Singapore are focusing on on-site examinations for conducting supervisory monitoring activities, including reviewing returns.

Most supervisors have developed manuals for conducting on-site examinations and are reviewing and expanding these as necessary, to support risk-based supervision. Some supervisors are also tailoring examination procedures for types of institutions and products. The OCC, for example, has developed separate procedures for non-complex community banks and large banking institutions.

All of the supervisory agencies use a bank rating system for internal purposes, and in some countries, overall and composite ratings are disclosed to the institution. Evaluation factors also differ. Some supervisors use the traditional CAMEL bank rating system, while others have enhanced it to include other evaluation factors. As noted above, the US added a sixth component, *Sensitivity to Market Risk*, to its CAMEL (now CAMELS) rating system. Additionally, the evaluation factors have been revised to increase the emphasis on the quality of risk management for each component and to list the types of risks that must be considered in assigning each component rating. The UK expanded its CAMEL[66] rating system into CAMELBCOM, such that it now considers business risk, internal controls and management.

All supervisors recognise the increasing importance of staff *experts* to address the evaluation of complex products or services during on-site examination activities. For example, most supervisors plan to use specialists to assess information technology and capital markets activities. The US has created *consumer compliance* specialists to evaluate compliance with an extensive body of laws designed to ensure consumer protection. The Netherlands has placed legal specialists in its *internationally active* institutions group, to provide guidance on legal risk issues.

Licensing activities

Supervisors in most of the benchmark countries have published guidance to banking licence applicants addressing the information (financial and non-financial) that the supervisor considers in granting or denying an application. During the licensing process, most of the supervisors require biographical and financial information to determine whether the proposed controlling owners, senior management and directors meet a *fit and proper* standard, consistent with the Basle Committee's minimum standards for supervision. Additionally, pro forma financial information and business plans about the proposed institution are required, to determine whether it has a reasonable prospect for success. Supervisors also use a variety of techniques to assess the veracity and validity of information submitted. In the US, for example, the OCC requires applicants to attend a pre-filing meeting with OCC representatives and conducts standard background investigations on the proposed Chief Executive Officer, President and other Executive Officers and also on the applicants, principal shareholders and directors[67]. The OCC also conducts a pre-opening examination to ensure that the bank meets all the requirements for commencing business, prior to issuing a bank charter.

Supervisors in most of the benchmark countries have also established internal policies and procedures for licensing activities, including mergers and acquisitions. Policies and procedures in these areas appear to be most developed in the US.[68] All supervisors indicated that internal guidelines for processing applications exist and that expediency in processing is a goal once all relevant data is received. The US uses standardised financial application packages based on the existing format of returns to make the licensing process more efficient.

Organisational responsibility for licensing activities varies across the benchmark countries. In some countries, case/country officers handle the licensing activities, while

[66] The UK's CAMEL framework differed from the traditional CAMEL used in other countries because the M component represented *Market risk* rather than *Management*.

[67] Background investigations are conducted through the US Federal Bureau of Investigation, Custom Service, Drug Enforcement Administration, the OCC's own Enforcement and Compliance Information System records, records of other regulatory agencies (when applicants have been or are with institutions under another agency's jurisdiction) and through computer-based searches of public documents, such as newspapers and court records.

[68] Procedural formality in the US may be the result of a legal framework that establishes mandatory processing timeframes and the fact that each licence application requires co-ordination with, at a minimum, three agencies, including the institution's direct supervisor, the Federal Deposit Insurance Corporation, and the Federal Reserve System (which operates as the US central bank).

others have centralised this function. A centralised process may be more effective if the supervisor receives or expects to receive numerous licence applications.

2.6.5 Supervisory responses

The types of actions that supervisors in the benchmark countries may take to respond to identified weaknesses in institutions vary widely. The US appears to have the broadest range of corrective measures, from such *informal* actions as commitments from management, board resolutions or memoranda of understandings to such *formal* actions as agreements signed by the board of directors, cease and desist orders, and removal orders. Supervisors in the US can also take formal punitive actions, such as assessing civil penalties against bank management and owners. Informal measures are not legally enforceable by the supervisor, although failure to take the required corrective action may result in the initiation of a formal proceeding. Formal actions are legally enforceable and are required by law to be publicly disclosed.

Although most of the supervisors have the ability to remove management or order investigations, formal corrective measures appear limited in some countries. Malaysia and Singapore, for example, do not have a structured set of corrective measures to address bank weaknesses and rely largely on moral suasion (generally written instructions with periodic progress reporting) to effect correction.

The UK is changing its approach to require more prescriptive measures and closer validation of corrective actions. The prescriptive measures will deal with *the root cause* of the problems and will require institutions to demonstrate that the underlying operational weaknesses have been amended and tested in order to satisfy the supervisor.

2.6.6 Organisational structure and operations support

All supervisors recognise the importance of hiring and retaining sufficient and qualified staff. Although staff training varies among countries, supervisors recognise the need to establish standard knowledge and skill building programmes. Generally, supervisors agree that there should be a basic curriculum, complemented by more specialised courses as staff progress. There appears to be more reliance on outsourcing of training for specialities, while relying on internal training or attendance at international supervisory courses to achieve the basic knowledge. Another trend is to pool resources among different supervisors to establish a central training facility. For example, the Federal Financial Institutions Examination Council ("FFIEC") in the US and South East Asian Central Bank ("SEACEN") in Asia.

Most supervisors agree that career development programmes need substantial development. Few have a well-developed career path planning process integrated with performance, remuneration and training. Some supervisors are considering the development of an examiner certification programme, to ensure the quality of examination skills by setting minimum requirements. In the US, there are well-documented career path planning programmes and an established examiner certification programme.

With the exception of the Nederlandsche Bank, all supervisors have encountered high employee turnover rates, making it difficult to retain qualified staff. As a result, all supervisors have either made, or are considering making, their remuneration packages comparable to the industry. Other incentives are also being considered to improve retention rates for excellent performers and experts.

Although organisational structures vary among supervisors in the benchmark countries, all seem to recognise the need to differentiate in the level of skills and expertise of the staff to address relative complexities of institutions supervised. The Netherlands, the UK and the US have differentiated between supervision of large financial groups or internationally active banks and the supervision of smaller, less complex banks. Additionally, all countries recognise the need for more *experts* to implement risk-based supervision, particularly in such areas as capital markets and information technology.

All supervisors recognise the need for improved automated applications to be used by their staff. Since most are in transition to risk-based supervision, there are initiatives in most of the countries to upgrade or expand their databases. There is also an increasing demand to establish standardised modelling capability within the revised systems.

2.7 Supervisory implications of global banking trends

2.7.1 Overview of assessment

In this section, we present our assessment of the implications of the global trends addressed in our study to the HKMA's supervisory processes and offer information about how other leading supervisors have responded to similar issues.

In general, the global trends indicate that financial markets are blurring, as financial institutions cross both geographic and traditional product boundaries to seek and exploit new market opportunities, meet intensified competition from non-bank providers of financial services and meet customers' demands for new products and services. Consolidation with other financial service providers is also increasing, and financial *supermarkets* are emerging. New technologies provide new opportunities in almost every area of bank operations, from new product and service delivery options to opportunities for establishing remote and lower cost processing centres. However, such opportunities generally come at the expense of increased operational risk. Likewise, new technologies add to the speed with which information travels through markets and around the globe, which can result in increased market volatility. Increasing risk in any area of the bank puts new pressures on its risk management processes, which must keep pace with the changing market.

Each of these global trends will pose increased risks to individual financial institutions and increased risk to the banking system in Hong Kong, as they have to banks in other countries. We have noted that the pace of change in Hong Kong is likely to depend on the overall economic recovery within the region plus specific local issues. For example, profitability pressures due to the current economic situation may be a catalyst for industry consolidation. However, diversified/family ownership structures of many local banks may slow this process. Nevertheless, supervisory insights can be drawn from developments in other countries. In the section that follows, we have therefore provided:

- a brief description of each major global trend and its effect on the banking sector generally;
- an assessment of the implication of the change to financial institutions in Hong Kong and to the HKMA; and
- actions that some governments or supervisors in other countries have taken in response to similar (or identical) changes.

As the following section demonstrates, in some cases there are different actions that can be taken to meet a new challenge. One action may also be intended to address a number of market developments. In general, however, the increased risks require supervisors to assure that banks' risk management capabilities are commensurate with the levels of risk in their operations (i.e. risk-based supervision) and to co-ordinate closely with local and foreign supervisors to provide proper oversight, possibly including an approach based on a super-regulator.

2.7.2 Global changes and supervisory implications and responses

Building on the analysis completed the review of global forces and trends, nine specific changes in banking are examined below in terms supervisory implications and responses:

- blurring of financial markets;
- consolidation;
- intensified competition from non-bank financial institutions;
- increasing market volatility;
- economic integration with Mainland China;
- information systems and new technologies;
- product complexity;
- risk management capabilities; and
- remote and cross-border processing.

Blurring of financial markets

Changes in the global nature of financial markets as banks expand beyond their traditional banking business. Financial supermarkets are emerging in response to competition.

Supervisory implications

- Creation of complex organisational structures, that go beyond legal entity and product line boundaries, could result in regulatory gaps[69] or duplicative supervisory reviews. Supervisors need to understand and remain vigilant to the organisational structures used and closely co-ordinate their oversight.
- Increased cross-border activities require closer co-ordination with foreign supervisors.

Supervisory responses

- Increased supervisory cooperation and harmonisation of polices and procedures across functional areas, including, at the extreme, adoption of the super-regulator concept.
- Transition away from *legal entity* focus towards emphasis on *line of business* risk.

[69] Situation where an activity is not subject to supervisory oversight.

- Strengthening of *consolidated supervision* programmes, including home/host country roles.

- Development of bilateral memoranda of understanding between cross-border and same-country financial sector supervisors (banking, securities, insurance and NBFIs).

- Establishment of prudential norms governing capital, large exposures, financial statement disclosures, etc.

- Evolution of principles of *on-going* or *continuous* supervision, rather than *point-in-time* judgements.

Consolidation

Banks are consolidating with other financial service providers to augment products and services. Increasing pressures are being placed on Hong Kong local banks to seek these types of alliances, to enable them to provide complete product lines.

Supervisory implications

- An increased number of banking groups, which operate different licences (e.g. banking, securities) in different subsidiaries, will require supervisors to focus on the impact of consolidation on the resulting entity, including legal implications and financial results, as well as management capabilities.

Supervisory responses

- Supervisory agency reorganisation or resizing to respond to the composition and complexity of the industry.

- Development of specialised and sophisticated large bank supervision programmes, including advanced risk management procedures, continuous supervision and deployment of resident teams of examiners to large/complex institutions.

- Recruitment of persons with industry and functional expertise directly into the supervisory organisation, rather than historical process of internal resource development.

Intensified competition from non-bank financial institutions

The number of financial service providers, insurance and securities firms, offering products that were traditionally offered only by banks is increasing. Several of the DTCs and RLBs in Hong Kong are also owned by non-bank financial institutions.

Supervisory implications

- The increased possibility that traditional institutions will enter new markets to meet competition requires the supervisor to appropriately evaluate new product developments, risk management processes and resulting financial performance.

Supervisory responses

- Increased supervisory monitoring of financial performance as pressures on margins and quality intensify.

- Greater focus on judging bank management capacity to respond to competitive pressures.

- Focus on legal and regulatory means to enhance "banking company" competitiveness, balanced against safety net issues.

Increasing market volatility

Since the Asian crisis started, global markets and Hong Kong are experiencing increasing volatility in interest rates, although this has subsided in recent months in Hong Kong.

Supervisory implications

- Narrower spreads increase the need to monitor interest rate risk, particularly basis risk. Supervisors must be able to increase scenario modelling or sensitivity analysis to changes in interest rates.

- Increases in sophistication of financial risk management models used by individual institutions will necessitate increased knowledge within the supervisory staff to evaluate such models.

Supervisory responses

- Emphasis on proactive, real-time exchange of information between the supervisor and significant financial institutions.

- Changes in reporting requirements and use of on-line feeds of financial data and transactions.

- Increased use of stress-testing and scenario modelling in forecasting the impact or influences of market volatility.

Economic integration with Mainland China

As Mainland China emerges as a global economic power, the geographic proximity and same country status make Hong Kong the acknowledged gateway to Mainland China.

Supervisory implications

- Increased direct and indirect credit exposures to Mainland China will expose Hong Kong banks to concentrations of credit, and place pressures on credit management skills. Supervisors must be vigilant in ensuring that appropriate underwriting standards and sufficient credit risk management systems exist in each institution to deal with the increased exposure.

- Different accounting rules and disclosures, and unfamiliar legal and regulatory frameworks also increase country risk. Supervisors must consider country risk as a factor in their risk assessment frameworks.

Supervisory responses

Although other regulators have not experienced this specific impact, some have met similar regional challenges. Their responses have included:

- coordination with professional organisations such as legal and accounting bodies to develop better transparency standards among countries;

- creation of internal guidelines and public documents emphasising the possible impact that differing accounting standards, legal documents and business regulations have on cross-border business risks;

- monitoring agreed exposure limits;

- ensuring that prudent lending policies have been adopted; and

- ensuring that lending is in accordance with established rules and practices.

Information systems and new technologies

Technological advances are changing the way banks do business. New technologies are also leading to increasing operational risks.

Supervisory implications

- Supervisors will need to have sufficient internal expertise to evaluate the adequacy of information systems during on-site examinations and in conjunction with outside auditor reviews.

- New delivery channels will increase operational risk as a result of data security and protection issues. This will require placing greater emphasis on operational risk management systems.

- Increased use of sophisticated risk management and decision tools such as credit scoring, asset-liability management ("ALM") models and automated trading systems will require sufficient knowledge of these tools on the part of the supervisor in order to assess their effectiveness.

Supervisory responses

- Recruitment and retention of staff capable of understanding and judging risks of bank information and risk management technology.
- Incorporation into the supervisory process the review of sophisticated management decision tools such as value at risk models, derivative *black box* methodology, automated trading systems and credit scoring systems.
- Identification and supervisory response to technology risk (e.g. Year 2000, smart cards and internet banking).

Product complexity

Local banks are expanding their products in response to customer demands.

Supervisory implications

- The speed of product innovation will require the supervisor to remain alert to the development of new products or financial activities, and to assess the vulnerabilities to current market conditions.
- The supervisor's focus must be on reviewing how bank management recognises the risk in new products in addition to their risk management capabilities.

Supervisory responses

- Use of specialised expertise to evaluate non-traditional banking products and associated risks.
- Greater focus on bank risk management processes relating to new and complex products.
- Supervisory focus on those products that represent the greatest risk.

Risk management capabilities

Changing and increasing risks is one of the most important trends in banking. Risk management systems and processes must keep pace with the complexity of a bank's products. In the course of our study we have noted that risk management capabilities vary considerably among banks in Hong Kong.

Supervisory implications

- Institutions are likely to establish new organisational structures and risk management systems that will need to be evaluated by the supervisor.

Supervisory responses

- Implementation of risk management and supervision by risk examination objectives and procedures, moving away from the historical compliance-based approach.

- Supervision programmes geared to be proactive rather than reactive.

- Development of customised programmes of supervision for large and complex institutions, including ongoing supervision and, in some cases, the use of resident and specialist teams.

- Resource deployment geared to meet the greatest elements of risk in individual banks and banking sector.

- Implementation of supervisory tools that facilitate supervision by risk, by enabling examiners to efficiently record supervisory findings and later access and correlate those findings in reaching conclusions about identified and emerging risks, both on an individual institution basis and across the sector.

Remote and cross-border processing

Due to economic efficiencies, many banks are relocating operational functions. A number of Hong Kong banks are considering this option to reduce costs.

Supervisory implications

- The possibility for internal control breakdowns increases as operations are moved away from local management control. This will require supervisors to focus on internal audit capabilities within institutions, to better assess operational risks.

- In addition, it may give rise to data security and confidentiality issues. Cross-border processing will therefore require closer co-operation with foreign supervisors and clearer policies on the review of operational risk. This may require additional resources to review this activity, particularly if it is not subject to the host country supervisor's oversight.

Supervisory responses

- Greater understanding and focus on operations risk, including data security and protection.

- Implementation of risk-based supervision programmes that stress operations risk and evaluate internal bank programmes (including internal audit) to manage such risks.

- New approaches to support the integrity and safety of payment systems (e.g. use of FED WIRE across international boundaries).

Concluding comments regarding supervisory options

As the above discussion indicates, a recent trend in financial sector supervision has been the creation of super-regulators. The new models, initiated in the UK, Denmark, Australia, South Korea and Singapore[70], are the results of an acknowledgement that the borderlines between different types of financial service providers are indistinct. The complexity of global markets, the increasing rate of change within industries and the diversification of firms into financial supermarkets for financial services placed an enormous strain on systems with multiple and overlapping regulatory structures. Each of the super-regulator initiatives is still in the implementation stage, as none were created more than a little over a year ago. It will be some time before their success and overall impact on the financial sectors of the respective countries can be properly assessed.

Generally, countries where there has been a convergence of functions performed by financial institutions, stock brokerage firms, and insurance companies are adopting the super-regulator model. In countries where the divisions between different types of institutions are maintained by legislation, the case for a single regulator is undoubtedly less strong. According to survey results, market views regarding the concept of a super-regulator in Hong Kong are mixed. While 43% of respondents believe the current regulatory arrangement (with different authorities regulating particular types of institutions) is the best system for Hong Kong, 43% also felt that Hong Kong needs a super-regulator in the next five years.

In theory, a super-regulator provides a number of benefits that must be considered within the country’s economic and legislative context. Briefly, a super-regulator is a single point of contact for all regulated firms and consumers, which can reduce the confusion, duplication and overlap that make multiple regulatory systems so cumbersome. Under the latter, for example, buyers of services can be shuffled among various agencies trying to identify the most appropriate forum to vent their complaints or resolve their problems. Having a super-regulator should also result in a single entity administering a single set of laws, principles and rules, thus ensuring that all market participants engaged in like activities are treated equally, based on their risk characteristics and the markets in which they operate. Similarly, a single regulator should provide for consistent treatment in authorizations, enforcement and discipline.

One of the singular challenges in the creation of the new super-regulator is developing a new organisational structure and staffing it properly. Care must be taken to avoid an

[70] The Monetary Authority of Singapore can be regarded as a super-regulator since 1984, when the securities industry was placed under its supervision.

overly bureaucratic entity, or one that maintains previous *turf barriers*. In most countries, the initial staff for the super-regulator have been transferred from a combination of its regulatory predecessors. Such staff bring with them considerable experience in their fields. However, there are also traditional biases that might need to be overcome in the new environment. A strong change management process and creation of a new organisational culture is needed for the staff to integrate properly and promptly.

Another challenge is funding the new regulator. As the new entity is essentially a start-up body, funding must be carefully considered to assure that appropriate budgets can be established to allow it to run efficiently and employ qualified staff. In many countries, the funding schemes of the previous regulatory entities are varied. Establishing a single assessment or fee structure merits carefully consideration to assure that no supervised group is unduly affected.

In most countries, changes to the regulatory structure require legislative action and extended time frames. Barriers created by law or convention, such as privacy laws and jurisdictional issues, may also need to be addressed before the new super-regulator can initiate operations.

Finally, from an operational standpoint, accounting and disclosure standards must be considered. The lack of common reporting within all industries on items such as investment valuation, bad debt provisioning and fee income recognition can create inconsistencies in information across functions. Also, regulatory returns must be evaluated to assure that information across functions is consistent and comprehensive to assess the financial condition of the combined entity.

It is therefore clear that the decision to establish a super-regulator is one that requires careful consideration of organisational, legal and financial issues, even in countries where the convergence of financial services participants exist. The purpose of our comments is to briefly identify the benefits and challenges of such a structure. It is not within the scope of our study to evaluate the feasibility of or make specific recommendations on the creation of a Hong Kong super-regulator. We do not therefore express an opinion on the advisability of a super-regulator. However, we encourage the HKMA to continue to monitor the integration and implementation process in the super-regulator countries, to further assess what lessons from such an approach can be applied in Hong Kong. The recommended starting point is to assess if there are presently any supervisory gaps/overlaps in existing arrangements, and the options to address these. A super-regulator is only one option.

Similarly, while not developing specific recommendations, we encourage the HKMA to continue to:

- assess the risks associated with longer-term integration with Mainland China;
- improve communication between supervisors/regulators; and
- work towards improved international standards for sector-level financial information and market disclosure.

2.8 Conclusions and recommendations

This section sets forth our conclusions on the adequacy and effectiveness of the HKMA's current supervisory processes and on the HKMA's supervisory processes in comparison to those of the benchmark countries. It also contains recommendations for enhancements to the HKMA's processes based on our assessments, and to address the changes likely to impact the Hong Kong banking sector over the next five years. In general, we have concluded that the HKMA's supervisory process has been effective in assuring a stable and competitive financial sector environment. To address the increased risks identified in the banking sector, however, the HKMA needs to continue to refine its supervisory processes to enhance its risk assessment system and place greater emphasis on the evaluation of institutions' risk management capabilities.

2.8.1 Development of supervisory philosophy and strategic plan

Conclusion

The HKMA has a supervisory philosophy that will allow it to respond to the market changes identified in the financial sector. Like the leading supervisors in the benchmark countries, the HKMA is shifting towards more forward-looking risk-based supervision.

We believe, however, that formalising a strategic planning process will be critical for the HKMA if it is to stay abreast of the market changes identified, and to implement risk-based supervision throughout the organisation. The creation of a strategic planning process will also allow the HKMA to achieve its goals and objectives more quickly and effectively.

Recommended changes

We recommend that the HKMA develop a formal strategic planning process for supervision.

Our experience in other countries indicates that a formal strategic planning process is an important tool in developing, communicating and achieving organisational support for new methods of bank supervision. A strategic planning process includes setting goals and objectives to carry out the HKMA's vision and developing action plans to achieve the stated objectives. For example, a goal may be *to develop a risk-assessment framework for supervisory monitoring*. The action plan would list tasks necessary to meet that goal, such as evaluating the adequacy of the existing CAMEL rating system for predicting significant risks. It would also assign responsibility for completing the task and a projected completion date. A monitoring system would be established to track progress in completing the tasks.

A formal strategic planning process facilitates common understanding of the supervisor's mission or philosophy and the role every HKMA unit and employee, at all levels, will play in implementing risk-based supervision. A common understanding encourages the staff-level support that is critical to successful implementation. The strategic plan and action plans can also address the optimum organisational structure and staffing requirements, including ensuring that staff have the skills and expertise necessary to implement risk-based supervision.

2.8.2 *Formulation of policies and procedures*

Conclusion

The HKMA has articulated its current approach (eg in the Guidance Note 3/95) and has provided its staff with substantial policy guidance on a range of topics relating to bank-specific and systemic risk evaluations. HKMA guidance meets the Basle Committee Core Principles for Effective Banking Supervision. However, it is centred on the current CAMEL framework. Given the limited number of case studies we reviewed, we were not able to determine if the policies are applied consistently and if they are effective in the identification of all risks.

Current policies would be enhanced by the formalisation of a risk assessment framework for supervisory monitoring, as described below. The concept of risk-based supervision was well received during our interviews, with several bankers describing it as an approach that would be consistent with industry practices.

Recommended changes

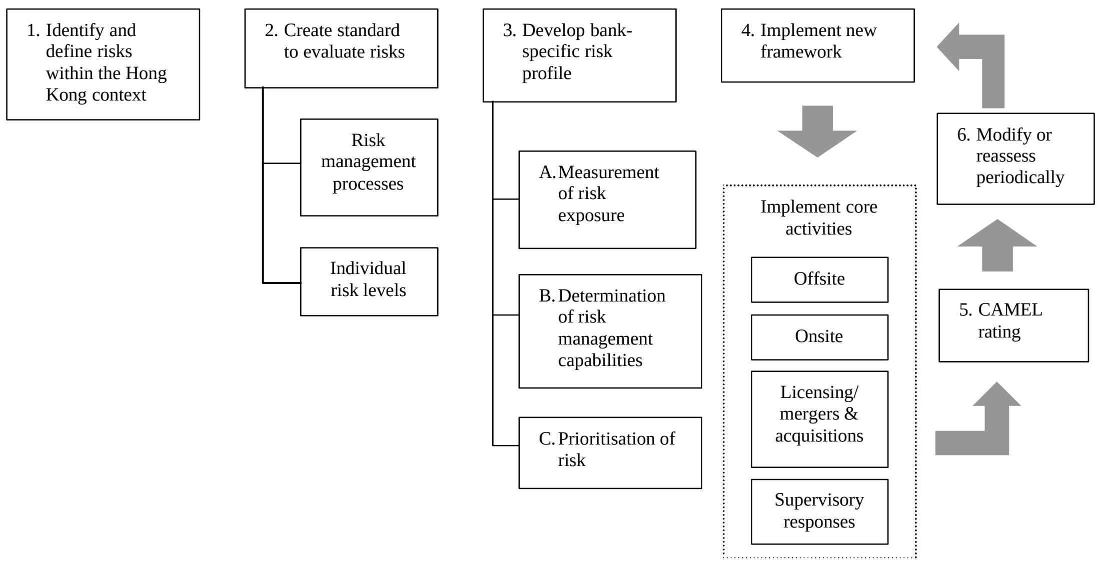
We recommend that the HKMA formalise a risk assessment framework and develop a quality assurance process to ensure that new policies are integrated into the supervisory process, as well as applied consistently across the organisation.

Risk assessment framework

As noted earlier, the HKMA's current supervisory process has been effective in the past as evidenced by a strong and stable banking sector. We believe, however, that the process can be enhanced to improve the HKMA's ability to be proactive in response to current and emerging risks in the banking sector, and to ensure that policies reflect the latest risk assessment framework. It is important that the HKMA develops or refines further its risk assessment framework and also institutes a quality assurance process to assist in the implementation and integration of the policies. Our recommendations regarding enhancements are consistent with the *best practices* in the benchmark countries.

We recommend that the HKMA formalise a risk assessment framework, to allow it to actively and systematically identify existing or emerging problems for individual banks or the banking system, and to ensure that such problems are appropriately addressed. Adopting a risk assessment framework would be appropriate given the range of institutions and products in Hong Kong today as well as in the future. The key steps necessary to implement a risk assessment framework are summarised below (see Chart 2.8.1). An explanation of each step also follows.

Chart 2.8.1 Assessment framework



Source: *KPMG/Barents analysis*

1. ***Identify and define risks within the Hong Kong context.*** The business of banking involves taking and managing risks to earn a profit and risk-taking by financial institutions is, therefore, to be expected. The types of risks to which financial institutions may be exposed, however, vary greatly, depending on such factors as each institution's business strategy, product mix, markets and management. Since banks can be exposed to many different types of risk, and because no standard language has existed to describe risk types, the first step the HKMA must take to implement a risk assessment framework is to identify and define risks pertinent to banks operating in Hong Kong, and to the banking system as a whole.

   Identification and definition by the HKMA ensures that its staff and the authorized institutions have a common understanding of those risks that are of concern to the HKMA, as supervisor. In addition, within the risk assessment framework, the HKMA could identify risks that are not explicitly discussed in the traditional CAMEL framework (e.g. strategic and reputation risk) and highlight other risks, such as operational, technology and country risks, that are increasing based on the analysis of global forces and trends.

2. ***Create standards to evaluate risks.*** Once the risks are identified and defined, the HKMA must develop standards for evaluating risk. Risk-based supervision does not seek to prohibit risk-taking, but, rather, seeks to determine when risk-taking by banks is excessive relative to their ability to manage it. Thus, standards to evaluate risk must consider, for each risk defined, the overall level of exposure and the quality of the bank's risk management processes.

Evaluation standards should be factors that HKMA staff must consider in developing an understanding of the level of risk and quality of risk management. For example, with regard to credit risk, evaluation standards for assessing the level of credit risk may include underwriting issues (such as a change in underwriting standards), strategic issues (such as the institution's target markets) and credit quality issues (such as trends in the financial performance of its borrowers and counterparts). Evaluation standards for assessing the quality of risk management in general must consider management's ability to identify, measure, control and monitor risk exposures. Standards for assessing credit risk management may include, for example, reviewing the bank's credit policies, credit related processes such as credit granting, credit monitoring, collection efforts, reserving practices and other accounting practices, the quality of its key credit staff and its control systems.

To ensure consistency in staff evaluations, the HKMA should develop standards to guide the conclusions reached in the evaluation process. For example, the HKMA could instruct its supervisory staff to conclude that the level of credit risk exposure must be rated *low*, *moderate* or *high*, and develop definitions of those ratings. For example, guidance standards to the effect that the level of credit risk exposure is low when staff conclude that:

- the current or prospective exposure to loss of earnings or capital is minimal;
- underwriting standards are sound and the volume of substantive overrides or exceptions to them poses minimal risk;
- borrowers operate in stable markets and industries;
- the risk of loss of capital or earnings from concentrations is low;
- the volume of troubled credits is low relative to capital and can be resolved in the normal course of business; and
- other similar conclusions.

The HKMA should also establish and define supervisory ratings for assessing the quality of risk management (e.g. the quality of credit risk management is "strong" if supervisory staff concludes that the credit policy function comprehensively defines risk tolerance, responsibilities, and accountabilities; all aspects of credit policies are effectively communicated; credit culture strikes an appropriate balance between marketing and credit considerations; the credit granting process is extensively defined, well understood and adhered to consistently; risk measurement and monitoring systems are comprehensive and allow management to proactively implement appropriate responses to changes in asset quality and market conditions; and other similar conclusions).

In its evaluation standards, the HKMA can encourage supervisory staff to take differences in institution size and operations into account when making assessments and assigning ratings. It may even develop guidance on evaluating different types of institutions. In most cases, however, the differences should be procedural. For example, a smaller traditional institution should not receive a different rating because of its asset size or product mix, even if HKMA staff consider fewer factors in evaluating it. The HKMA may also find that some risks, though potentially significant to banks, are difficult to measure precisely and a modified assessment process may be appropriate in these instances as well[71].

Because risk-based supervision emphasises the quality of risk management to a degree that a traditional CAMEL-based system does not, HKMA staff and bankers are likely to find that they need guidance on what adequate risk management processes entail. To address this, the HKMA could develop *best practices* papers based on its observations of risk management practices at many financial institutions, of many sizes and operating in many markets. The HKMA may also find it helpful to establish minimum standards for institutions' in the following areas:

- risk identification and measurement systems, to ensure that institution management can measure their risk levels periodically; and
- risk monitoring mechanisms (e.g. exception reports, and internal and external audit checks that can alert institutions' management to lack of compliance with established levels).

3. ***Develop risk profiles***. Conclusions on the level of risk exposure and the quality of risk management permit the HKMA's supervisory staff to determine whether a bank's exposure to any of the defined risks is excessive. In other words, to judge whether the level of risk exposure is within the bank's ability to manage it. If it is, the institution's management is doing a good job of managing that risk, not only for the benefit of the bank's depositors, shareholders and other stakeholders, but also for the benefit of the banking system as a whole. If not, not only are depositors, owners and other stakeholders at risk, but so is the bank and the stability of the banking system. Thus, the conclusions that HKMA staff reach on the level or quantity of each risk exposure, relative to the institution's ability to manage it, are critical considerations in determining an appropriate supervisory strategy for that institution.

   Once again, the HKMA may find it helpful to develop guidance for staff on reaching such conclusions. For example, the HKMA could state that a *low* quantity of risk rating and a *satisfactory* quality of risk management rating mean that supervisory staff should generally conclude that, in the aggregate, the institution's rating for that type of risk is *low*. Guidance in this area should also leave room for consideration of risk-mitigating factors other than the high quality of an institution's risk management practices (e.g. the presence of insurance).

   Assessments about the quantity of risk relative to the quality of risk management (for each risk defined) form the basis for an institution's risk profile. In addition, the HKMA may find it useful to have its supervisory staff determine, for each risk

[71] In the US, for example, the OCC has developed modified assessment processes for its categories of strategic and reputation risk.

defined, whether the level of risk exposure is increasing, stable or decreasing. Conclusions about the aggregate risk and the direction of risk (for each risk defined) help supervisory staff develop the last component of the risk profile, a prioritisation of risk (i.e. its relative threat). Taken together, the aggregate risk assessments and risk prioritisation identify for the HKMA the areas of greatest risk within the institution, and arm it with information necessary to tailor an institution-specific supervision strategy.

As each institution's risk profile is the culmination of volumes of information and many judgements, the HKMA should develop a standard format to assure that examiners document their considerations and the bases for their conclusions.

4. ***Implement the new framework***. Once the risk assessment framework is developed, the HKMA should test it in at least two types of institutions - a large institution with a broad array of products and business lines and a small institution that has a more traditional product mix. After testing the framework and revising it if necessary, the HKMA should develop sound policies and procedures that explain how to apply these concepts in its core monitoring activities (off-site, on-site and licensing) and also how it relates to the initiation of supervisory responses.

   An important aspect of this process will be training and educating staff at all levels of the organisation (and the industry) on the use and benefits of a formal risk assessment system. We also recommend that the HKMA work closely with external auditors to ensure that they understand the risk assessment framework.

   As the risk assessment framework is implemented, the HKMA may find that institutions question the relevance of the traditional CAMEL rating and how it relates to or operates with the risk ratings. With regard to CAMEL, the HKMA has two possible options: develop a separate component for risk management capabilities or expand the HKMA's current guidance to more explicitly address risk management. A separate component addressing the adequacy of an institution's risk management process, including its internal controls, would need to include appropriate linkage to the current CAMEL rating. Expanding or enhancing the current guidance would require clarifying the elements to be reviewed in the evaluation of risk management systems, establishing minimum standards for the risk management processes in all authorized institutions, and clarifying the importance of this element in arriving at the *management rating*. The CAMEL rating system and its implementation procedures should also be reviewed, to ensure that non-traditional banking risks are factored into the existing rating structure.

5. ***Reassess the framework periodically and modify it if necessary***. As with any other policies, periodic review is necessary to ensure that the standards remain valid within the Hong Kong context. Periodic review is also necessary to provide clarification of concepts and their application and to address innovation in products, systems or technology. Finally, the HKMA should enhance the process of co-ordination between the policy and supervision departments. This can be achieved with periodic meetings between policy and supervisory units (which we understand

now take place) and establishing a formal mechanism for each department to review current and proposed policies for relevance to the current supervisory environment.

Quality assurance programme

We recommend that the HKMA establish a process to ensure that it continues to deliver consistent high quality bank supervision. In our study of the benchmark countries, we found that supervisors are focusing on ways to ensure the consistent application of policies and procedures, particularly when adopting the risk-based supervisory approach. Few countries have developed a formalised programme. However, all have some internal process to assure that policies are reviewed in conjunction with revisions to the risk assessment framework.

We suggest two methods for instituting a quality assurance programme - develop a quality assurance unit or create a peer review process. The quality assurance unit would be separate from the supervisory process and would review documentation of supervisory activities for all authorized institutions, to ensure consistent policy adherence. Its staff would devote all of their efforts to these review activities. A peer review process entails HKMA supervisory staff reviewing other supervisors' work in a representative sample of authorized institutions, and from those reviews drawing conclusions regarding the level of policy compliance and implementation.

Other ideas worthy of consideration are to send each bank a questionnaire following each on-site examination, requiring an evaluation of the supervisor's performance at the examination. The HKMA could also consider the establishment of an ombudsman who can receive and attempt to resolve complaints from banks that believe that they have been improperly dealt with in the supervision process.

Key issues to consider in establishing a quality assurance programme are the:

- structure of the function, including reporting lines;
- appropriate persons to carry out the programme's goals and objectives;
- level of staffing and requisite experience;
- method to communicate programme goals and objectives to staff; and
- methods for review, testing and monitoring.

We recommend that the HKMA explore development of a quality assurance programme with other supervisors, particularly in the UK and the US, where the process has become formalised.

2.8.3 Supervisory monitoring

Off-site activities

Conclusion

The HKMA's off-site surveillance activities are well supported by strong ratio and peer group analyses. The quality and accessibility of financial data at the HKMA is comparable to that of the other lead regulators. The HKMA's process for analysing systemic issues is also very commendable. We believe, however, that the off-site process could be enhanced by having a more formal process to identify all risks and evaluate risk management capabilities. The process to ensure that findings and conclusions on the level of risk and the quality of risk management are adequately documented should be formalised.

Recommended changes

We recommend enhancing the supervisory process by integrating risk management principles into the off-site surveillance activities.

Off-site analyses and corporate profiles

The current *corporate profile* provides relevant background and historical information but should also incorporate information on the *risk profile* of the institution, including the identification of all risks to which the institution is exposed, and an evaluation of the level of risk and the quality of the institution's risk management processes.

New guidelines and procedures, which incorporate risk-based principles, should be developed for tripartite and prudential meetings to ensure that discussions are focused on significant risks within the institution. Furthermore, the types of risk management reports to be requested from authorized institutions during the off-site analysis should be formalised.

The quality of HKMA's forward-looking analysis should be improved by increasing system capabilities and providing the appropriate training. The HKMA should develop more detailed procedures for financial modelling and *what if* scenario analyses. For example, HKMA staff have stated that local institutions have low interest rate risk. As the spread between prime and HIBOR shifts and becomes more volatile, however, the level of interest rate risk resulting from *basis risk* will grow. Standardised stress testing, using various scenarios, would be beneficial in assessing both individual and systemic risk and the impact on earnings from such changes.

The adoption of a risk assessment framework will help ensure that the identification and evaluation of risk in the off-site function is conducted in a consistent and uniform manner across the HKMA. It will also allow supervisors and the industry to use a common terminology when discussing the *risk profiles* of institutions.

Regulatory reporting

The HKMA has a comprehensive set of regulatory returns from which to conduct bank-specific and systemic analyses. However, risk analysis and modelling capability could be improved by realigning the presentation of balance sheet and income statement components. If income statement components were broken down by product type, similar to the balance sheet and loan returns, yield analysis would be more comprehensive. In addition, property information from ad-hoc surveys and other survey information should become part of the core supervisory database.

On-site activities

Conclusion

The HKMA's on-site examination philosophy of performing targeted examinations has been effective, both in terms of supervising the financial sector and resource management. The HKMA's use of on-site examinations is in line with supervisors in the US and the Netherlands. The current focus of on-site examinations has been specific and topical, including targets such as Year 2000 preparedness and deteriorating asset quality (particularly in the property sector), which are the same as or similar to concerns other supervisors in the benchmark countries have identified. Procedures and manuals for carrying out on-site examinations have been effective in providing guidance to HKMA supervisory staff. We believe, however, that a risk assessment framework will improve the conclusions drawn from on-site examinations.

Recommended changes

We recommend that the HKMA make revisions to its current on-site activities to more explicitly address the evaluation of risk management capabilities within all authorized institutions. The revisions would assure the execution of a more formalised risk assessment framework.

Adopting a risk assessment framework will broaden the focus of the on-site examination and may initially require the HKMA to carry out more on-site examinations than normal. This will be a challenge to the HKMA examination staff, particularly as it continues to address the current Asian crisis fallout. This means that the targeted risk-management focused approach will take longer to implement in all institutions.

Procedures for on-site activities should also be enhanced to include detailed guidelines for reviewing risk management systems and tailoring examination procedures by type of institution. The HKMA should consider issuing position papers clearly identifying the standards for an overall risk management process for local institutions. These papers would assist in developing a common understanding and a more cohesive implementation of the new focus. Supervisory staff should also be provided training in these new concepts and examination procedures. The internal and external report of examination should also be revised to incorporate the conclusions on the quantity of risk and the quality of risk management systems.

Based on the risks identified in the banking sector study, the HKMA should develop more comprehensive policies and procedures for interest rate risk management, information technology and fiduciary activities. These can be additional chapters to the current On-site Examination Manual, with separate more detailed procedures developed for specialised areas such as interest rate risk management and information technology.

The HKMA has defined the supervisory cycle for local and foreign institutions in its policies and procedures. The current system has sufficient flexibility to make changes in supervisory plans if warranted. We recommend that the supervisory cycle be fully integrated with the risk-based approach. This would involve using the risk profiles to develop bank-specific supervisory strategies that would clearly outline targets for each supervisory monitoring activity, including on-site examinations.

The HKMA should enhance its examination planning information. Although examination commencement and completion dates are currently tracked, the HKMA could further enhance its supervisory planning techniques by obtaining detailed information on the time spent on each supervisory activity (e.g. credit reviews, review of high level controls and asset liability management). Information of this nature would be useful in evaluating the efficiency of the examination process.

Licensing activities

Conclusion

The HKMA guidelines governing licensing activities are adequate and are similar to those of the benchmark countries other than the US (the detailed procedures used in the US are not appropriate for the current level of activity in Hong Kong). The HKMA has responded to the need for more detailed guidelines on mergers and acquisitions. It has also centralised aspects of the licensing and merger and acquisition functions so that case officers can work more effectively. We believe that the Banking Supervision Review Committee has functioned well in providing consistent treatment of all applications.

Recommended changes

We encourage the HKMA to consider requesting pro forma financial information in the same format as the standard returns. This will allow officers to more clearly track the success of management's efforts, once the new licensed activity is initiated, and also to react in a timely fashion to divergence from the financial plan.

2.8.4 Supervisory responses

Conclusion

The HKMA has been very successful in obtaining corrective action using informal powers, while reserving its formal powers under the Banking Ordinance for severe cases. We consider this to be the most efficient use of the HKMA's resources. We endorse the initiatives taken by senior management to institute a process for following up on all exceptions noted during the examinations.

A number of supervisors in other countries (in the US, for example) have a more expansive array of institutionalised corrective measures, varying in formality and legal enforceability. The HKMA's statutory authority for remedial actions, as well as its authority to assess penalties, appears to be adequate and effective.

Recommended changes

We recommend that the HKMA develop guidance indicating the circumstances under which the various types and degrees of supervisory actions should be taken.

Policies and procedures for taking corrective measures can help ensure that corrective and remedial actions are taken expeditiously, fairly and, in some cases, entirely voluntarily. First, by outlining levels of supervisory responses, they encourage supervisory staff to deal with weaknesses at an early stage, by less formal measures, before they develop into more serious problems (and in many cases before the problems are reflected in an institution's component or composite ratings). Standards for determining when to take an action and the type of action to take would enhance consistency in application of the remedies. Furthermore, if shared with financial institutions, policies and procedures for taking corrective action can encourage bank management to identify and address their own problems, to avoid the HKMA taking action or to mitigate the severity of the action likely to be taken. As an added benefit, they would help the financial community and, it is hoped, the public, to understand that supervisory actions are not necessarily an indication of impending doom for a bank, but rather the execution of a process by the HKMA that is intended to lead to stability and recovery.

A corrective actions policy should strive to promote the consistent treatment of institutions in similar circumstances, while preserving the flexibility to fashion the corrective action most appropriate for each institution's specific circumstances. It should identify the various types of informal and formal corrective measures that the HKMA can take and list the circumstances in which each type of action would be appropriate. In selecting the specific action to be taken, consideration should be given to the institution's condition and the HKMA's assessment of the degree of co-operation, responsiveness and overall capability displayed by the institution's management and board.

The policy should identify responsibilities for recommending and evaluating corrective measures, and should establish the type of documentation and justification necessary to support a recommendation for each type of action. The documentation and justification necessary should increase with the severity of the corrective measure recommended. The examiners or case officers responsible for an institution are probably in the best position to clearly recommend and support corrective measures. Creating standard contents for the various corrective measure documents can also assist the examiners in the recommendation process. This may require categorising commonly used criteria into various areas and possible formats, for the examiner to draw upon in making the corrective measures recommendation. The policy should also establish responsibilities for review and decision timeframes for corrective actions. Lastly, it should establish the responsibilities for following-up corrective actions and the timing of follow-up.

2.8.5 *Organisational structure and operations support*

Organisational structure

Conclusion

The HKMA's current organisation structure is effective in carrying out supervisory activities. The HKMA has taken the appropriate steps to re-organising its supervision and policy departments over the past few years and, like the lead supervisors in the benchmark countries, has reorganised its supervision staff by complexity and size of the institution. Also like the lead supervisors, the HKMA has recognised the need to use and create *specialist* teams to execute policy. The HKMA needs to continue to build specialist teams to address the increased risks in the financial sector.

Recommended changes

We recommend that additional specialist teams be included in the organisational structure and consider further centralisation of its licensing activities within the BPD.

Specialist teams

Given the technological advances recognised in our banking sector study, it will be important for the HKMA to consider expanding the use of specialist teams to include bank information systems and fiduciary experts. Additionally, the HKMA should create guidelines on how all specialists will be used in the on-site and off-site process.

Bank information technology specialists should possess the technical expertise to evaluate the adequacy of information technology systems during examinations. These specialists should also be able to provide the senior management of the examined institution with an objective assessment of their institution's plans during technical system presentations. The expertise in this area will be necessary in the short-term and, thus, external recruitment is recommended.

Fiduciary specialists should be able to evaluate activities relating to private banking and investment advisory and pension products under the Mandatory Provident Schemes Ordinance ("MPFSO"). The HKMA can build this expertise over the medium term but should consider hiring at least one person with local expertise in the near term while, at the same time, developing additional expertise over time within the HKMA's staff. Until specific fiduciary procedures are developed, guidance on these activities should be expanded.

Centralisation of licensing activities

The current volume of activity has allowed the HKMA the flexibility to handle its licensing activities in various ways while assuring consistent treatment of applicants. The forces of change such as trends in consolidation and possible increase in merger activity, as well as our recommendations on some fo the existing regulatory features, such as relaxation of the one-building restriction, are likely to create an increase in licensing activities. At the same time, the complexity of the institutions will place more demands on the time of the BSD staff.

Centralising the licensing function within the BPD will ensure the efficient processing of the additional application volume, without sacrificing the quality of the analysis or decisions. The skills needed to process application requests can become very standardised when handled by the same group of individuals. This group can have additional responsibilities for other compliance issues such as money laundering as they tie to the evaluation of the *fit and proper test.*

Creating a specialised unit within the BPD, that addresses the above issues, will also benefit the HKMA in establishing consistent contact points to address policy issues. Additionally, it will allow BSD staff to focus on their primary role as day-to-day supervisor of individual institutions (since most of the licensing decisions revolve around policy issues) and will provide the HKMA with an objective evaluation of each request on its own merits. Centralisation of the function would still require strong communications between the licensing staff and the case managers of the institutions affected. This can be achieved through enhancements to the HKMA institution-specific database and Intranet electronic mail system.

Individuals selected for the positions within the unit should have a basic understanding of bank supervision criteria, bank accounting standards and HKMA policies. Specialised or technical items of bank specific products should be referred to the case officers since they have in-depth knowledge of the institutions. Other BSD specialists, such as securities or information technology specialists, should also be consulted on the more complex issues or products. However, the processing responsibility would remain with the centralised licensing unit.

Staffing and performance management

Conclusion

The retention of qualified staff will continue to be a challenge for the HKMA. Turnover has been minimal in 1998 and the staffing levels of the HKMA have been sufficient to appropriately supervise the activities of all authorized institutions. Recent pressures caused by the Asian crisis have required senior HKMA management to reallocate staff to ensure that workloads remain manageable, and that training and opportunities are increased. Like the lead regulators, the HKMA has created remuneration incentives to retain qualified staff. Going forward, the HKMA will continue to be challenged in the retention of qualified staff.

The continued implementation of risk-based supervision will increase the range and depth of core skills and experience levels that are required. Additionally, the increasing complexity of the financial markets identified in the banking sector study is likely to require a change in the mix of skills and experience levels that will be required. The depth of knowledge in specialised fields such as information technology and fiduciary services will also require increased expertise by the supervisory staff.

The HKMA will need to continue to focus on improving its human resources processes and increasing the core capabilities of its staff over the next few years. Like many of its counterparts in the benchmark countries, the HKMA would benefit from developing a structured career development programme and conducting a training needs assessment

Recommended changes

We recommend that the HKMA define core capabilities (skills and knowledge) necessary at each staff level, include the core capabilities in revised job descriptions and in the performance evaluation process, and establish a formalised career development programme.

Definition of core capabilities

Full implementation of risk-based supervision will place increasing demands on the HKMA's current staff, and will necessitate varying degrees of knowledge and skills at each staff level. For instance, an increased level of knowledge of asset and liability management techniques will become important as local banks face increasing competition from non-bank financial institutions and have to adjust their products and pricing. Changes in balance sheet composition will require institutions to seek aggressive balance sheet management strategies that have not been needed with their traditional product lines. HKMA staff need to be alert to the changes in balance sheet structure, the possible impact of those changes on earnings and capital adequacy and the methods that management will use to manage those changes, such as simulation or forecasting models.

Core capabilities should include both technical knowledge and *soft skills*. Given the current banking environment and the prospective changes noted in this study, we believe that the following are representative of some of the core capabilities that will be needed (see Table 2.8.1):

Table 2.8.1 Examples of emerging core capabilities

Technical knowledge	Soft skills
➢ Credit and credit processes	➢ Analytical skills
➢ Asset and liability management	➢ Written communication skills
➢ Internal risk management processes	➢ Oral communication skills
➢ Information technology	➢ Interpersonal skills
➢ Derivatives	➢ Time management skills
➢ Fiduciary activities/private banking	➢ Personnel management skills
➢ Financial analysis of authorized institutions	

Source: *KPMG/Barents analysis*

The HKMA will need to properly assign the level of importance for each of the core capabilities in each rank. These capabilities should be clearly articulated in the job descriptions and measured in the performance appraisal process.

The HKMA will also need to re-evaluate the time spent on on and off-site activities, after conducting initial risk assessments. It is likely that some reallocation of time will occur to complement the on-site teams if the HKMA chooses an aggressive implementation of the more formalised risk assessment framework, not unlike the shift that has occurred to address Year 2000 issues.

All of this is likely to translate into an increase in staffing levels over the next five years. At a minimum, in the next year, the HKMA should consider hiring an information technology specialist, while also planning for additional resources to address possible turnover and the change in the supervisory process. The overall allocation of these resources between on-site and off-site activities will depend on the established risk profiles of the authorized institutions.

Job descriptions and performance evaluation process

The HKMA should establish a performance management programme to assist it in identifying and rewarding high performers, and in encouraging poor performers to improve their skills. The programme should be in writing, with wide distribution throughout the organisation. It should also place particular emphasis on the critical nature of performance as a key to compensation, promotions and training. In general, a performance management programme consists of six primary elements[72]:

1. ***Job description and performance standards***. Each position in the organisation should have a written job description, with a set of job standards. These standards should be stated in a manner such that performance factors can be directly matched to the assessment of the individual's abilities and performance.

2. ***Evaluation process***. Regular evaluations of each employee of the organisation should be conducted based on the employee's daily job function. Each employee

[72] We understand that some of the below elements already exist within HKMA, however, we have listed them here in their entirety to assure completeness.

should receive performance feedback in periodic (quarterly or semi-annual) summary written evaluations, which can then be rolled up into an annual written evaluation. The evaluation should cover factors such as administration, communication and technical skills. The annual evaluation should always be discussed with the employee, and the periodic evaluation should be discussed with those employees whose performance needs improvement.

3. ***Performance recognition and compensation programme***. At each periodic and annual evaluation, the level and quality of performance should be recognised through salary, bonus or benefit rewards. The culture of the organisation should support the relationship between the performance of the employee and the recognition and compensation available.

   The HKMA must create incentives to retain its highly effective and productive staff, while instituting alternatives to deal with below average performance. One of the ways to create incentives for good performers is to establish *specialities*, that recognise particular skills needed to supervise effectively in the changing market environment. The HKMA has identified several specialities in past years. However, additional areas for specialised knowledge were identified in our review. The HKMA will need to initiate plans to meet these speciality requirements over the short-term, and to build institutional capacity over the longer timeframe. The current turmoil in Asia has already put more demands on the HKMA in terms of reallocating resources to potential problem banks and focusing on sector issues (e.g. asset quality), that require more immediate attention. Although the immediacy of these issues cannot be understated, the need to provide for the long-term will require focusing on improving key elements, and assuring full implementation of risk-based supervision.

   Given the high staff turnover, the HKMA should also consider creating more levels for its assistant manager, manager and senior manager ranks. By expanding the levels, the HKMA can maintain its hierarchical structure for the institution, while creating a clearer career progression for the staff. This will assist the HKMA in attracting and retaining qualified staff.

4. ***Remedial performance management***. A written programme of remedial action should be developed for those employees who do not meet an acceptable standard of performance. Employees who do not meet the standard in one period, should receive written guidance on the areas of weakness, work projects to be undertaken to improve performance and notice of subsequent remedial actions to be taken by the HKMA if performance does not improve. Failure to meet the performance standard at the end of the notice period should result in disciplinary action.

5. ***Testing and certification process***. The testing process for the organisation would define the base knowledge, education and experience necessary to be considered proficient as a banking supervisor. For various predetermined knowledge hurdles, the employee would be required to demonstrate, through testing, both technical and generalist skills commensurate with the next level of knowledge required. Failure to

meet the next knowledge hurdle (through testing) would restrict the availability of performance recognition through salary and bonus.

Training

Conclusion

We identified in our benchmarking study that most supervisory agencies consider increasing staff capabilities as one of the most critical tasks in implementing risk-based supervision. No doubt this will be one of the HKMA's biggest challenges. While the HKMA has made efforts over the past few years to provide its staff with training by offering quality training courses, both internally and externally, it does not appear the HKMA has conducted a training needs assessment to evaluate its current capabilities in comparison to the skills that are required to fully implement risk-based supervision.

Recommended changes

We recommend that the HKMA perform a training needs assessment of its banking departments' staff and expand the current training curriculum, to ensure that the skill levels of the existing staff are appropriate.

An integral part of an organisation's performance management programme is the training of staff. Training should encompass skill development in both generalist and technical areas of expertise. For technical skills, for example, areas of importance would be credit risk, market risk, management and operations. Generalist skills would cover organisation policy, administration and performance management. Employees must demonstrate gradations of knowledge at each performance level during the evaluation process.

To increase the quality and level of staff skills, the HKMA will need to perform a training needs assessment that relates the required skills to carry out its supervisory process to the current skills of its staff. This assessment will help determine any gaps in skills, the desired curriculum for supplementary training programmes, individual training and improvement plans and the need to employ *experts* from industry. Given the importance of the training function and the skills required in this area, the HKMA should consider developing a separate training unit outside of the human resource function, with the objective of elevating its profile within the Supervisory Department. Even if this option is not pursued, the HKMA should improve communication between the Human Resources Department and line staff on training needs.

Training should be an integral part of a supervisor's career and personal development. The current internal introductory supervisory course and the Master of Science in Banking programme should be supplemented with additional training over an employee's career as a supervisor. A core curriculum that encompasses courses at the assistant manager, manager and senior manager levels would help develop both technical and *soft skills* necessary to carry out supervisory activities. In reviewing how to augment the courses, the HKMA should consider seeking other international supervisors' assistance.

In countries such as the US, the supervisory agencies have standard courses that HKMA staff could attend. Also, attendance of selected staff at courses sponsored by SEACEN is encouraged. Although the HKMA has sent staff to attend these courses in the past, they should consider if they should replicate the courses in Hong Kong to increase the participants that will benefit from selected courses. Finally, the HKMA should also explore other local professional associations that could have established courses for their own staff, and that may be able to provide their instructors or to allow the HKMA staff to attend their sessions.

The HKMA could improve the effectiveness of formal classroom training by co-ordinating it with structured on-the-job training, which corresponds to individual training plans and performance appraisals.

If a new risk assessment framework is developed, it will be essential for HKMA to develop a training programme that focuses particularly on the evaluation of risk management processes. The HKMA should consider working with its large institutions in creating an internship programme that would allow examiners to spend a month or two with a bank, learning risk management concepts and their application. The HKMA should also consider bringing in experts from banks to teach its staff about specialised products and how they are managed.

Management Information Systems

Conclusion

Another critical area that is the focus of many supervisors today, including supervisors in the benchmark countries, is the improvement of management information systems, including the need to enhance modelling capabilities. The HKMA receives comprehensive financial and statistical information on authorized institutions in a relatively timely and efficient manner. This has allowed it to build an extensive database in the EPSS system. EPSS has accomplished its original objectives and will need to adapt certain aspects to accommodate additional supervisory information data and further modelling capability.

Recommended changes

We believe that the HKMA should enhance its supervisory database. While there are fields available in the database to record supervisory information, they were not complete or utilised. The HKMA should make the following enhancements:

1. ***Add additional fields to capture the risk profile information required by the enhanced risk assessment framework*** - the database should be able to provide the level and types of risk identified in the institution based on supervisory monitoring. Information should be time-tagged to provide analysis over time.

2. ***Add modelling capability*** - the data contained in the EPSS can generate standard ratio calculations in established formats. However, modelling needs require examiners to download data and create spreadsheet models that differ across

divisions. We recommend that the HKMA improve its system capability so that financial modelling and scenario testing can be conducted. The development and standardisation of models for evaluating basis risk and net interest margin exposure to such risk, for example, is encouraged.

3. ***Add additional fields to incorporate the corporate profile information*** - the EPSS database contains items currently included in the corporate profile, such as ownership and controlling interests and other permanent bank information. The HKMA should consider adding fields to capture data such as organisational structure. The automation of this data would assist the officers in preparing the corporate profiles. It would also allow senior management to access the information at any time.

4. ***Include examination-planning tools*** - the timesheet information database should be adjusted to include more detail on the types of tasks performed for each institution. For instance, on-site and off-site activity should be further detailed as to the area of review (e.g. credit, risk management processes and treasury). This type of recording mechanism can assist in tracking resource utilisation and also aid in monitoring employee development.

5. ***Include selected survey information*** - the HKMA should consider including useful information for *ongoing supervision* such as the IRR survey. This is also important because this information is currently being stored in a computer hard drive that exposes the HKMA to loss of data. One alternative to avoid the loss of data, is to specify a storage space (drive) within the shared network and have all ad-hoc survey data backed up to this drive every day.

6. ***Re-initiate the use of the CAMEL historic database*** – trend analysis of CAMEL component behaviour for each authorized institution would be beneficial to assist in systemic trend analysis, and could provide senior management with information to assess the current status of the system at a given date.

In addition, the HKMA should explore other methods of using technology to support its supervisory efforts. In some countries, the supervisor is now able to receive financial and other data from banks that is not included in the regular returns. Software has also been developed that permits examiners to more efficiently perform routine financial analysis, so that they can spend more time evaluating the overall condition of the institution and its risk management practices.

Furthermore, some regulators are also exploring *direct access* to banks’ databases to enhance their surveillance systems. It may be worthwhile for the HKMA to investigate the scope to improve the existing Submission Through Electronic Transmission (“STET”) system in this regard. Direct access could speed up data collection (e.g. recent efforts to collect ITIC exposure information for the sector). However, direct access to different institutions’ databases would have a number of operational complexities (e.g. the different database structures), as well as potential privacy and legal issues.

2.9 Summary of assessment and recommendations

Our assessment of the HKMA's supervisory processes led to the overall conclusion that the HKMA is a strong supervisor with a supervisory process that has been effective in assuring a stable and competitive banking sector. The HKMA has recognised that risks in the banking sector are increasing and has taken steps to enhance its supervisory processes so that it can be more proactive. Most notably, it has begun a transition to risk-based supervision. In its supervisory approach and in its implementation, the HKMA is in line with the leading supervisors from the benchmark countries (many of which have also undertaken internal assessments to review their organisational structures and supervisory approach), and it is well ahead of its Asian counterparts.

We acknowledge the steps the HKMA has taken to ensure that its supervisory processes continue to be effective, including its decision to adopt a risk-based supervisory approach. The HKMA's own efforts to identify and take measures to enhance its supervisory processes, from transitioning to risk-based supervision to increasing its retention of top-performing supervisory staff, are commendable.

Thus, our assessment of the HKMA's current processes, when viewed alone or in comparison to leading supervisors from the benchmark countries, do not indicate that any major change in direction is needed. We believe, however, that the HKMA can take additional steps to enhance its supervisory processes, and have offered specific recommendations in Section 2.8. In many cases, our recommendations serve to support initiatives that the HKMA has already begun. In general, the HKMA needs to continue to refine its supervisory processes, to enhance its risk assessment system and place greater emphasis on the evaluation of institutions' risk management capabilities.

The HKMA's current organisation structure is effective for carrying out supervisory activities, but can be enhanced by creating additional specialist teams and further centralising the licensing activities function in a separate unit in the BPD.

The HKMA has taken the appropriate steps to reorganise its supervision and policy departments over the past few years. Like the lead supervisors in benchmark countries, the HKMA has reorganised its supervision staff to reflect the varying complexity and size of institutions subject to HKMA supervision. Also like lead supervisors, the HKMA has recognised the need to use and create specialist teams to most effectively execute its supervisory policies. It should continue to build such teams to address the increased risks in the banking sector.

Given that the volume of licensing activity and complexity of policy issues presented by applicants are expected to increase, the HKMA may also benefit from centralising the licensing function within the BPD. Centralisation in the BPD would enhance the HKMA's ability to process applications efficiently, without sacrificing the quality of its analysis or decision-making. This reflects the fact that most of the licensing decisions turn on policy issues and permits the BSD to focus on its primary function, as the day-to-day supervisor of individual institutions.

The tools and techniques that the HKMA has developed to carry out its supervisory mission are effective. Enhancements recommended include formalisation of the risk assessment framework and establishment of a quality assurance programme to ensure that new policies are integrated into supervisory activities and applied consistently across the organisation.

Risk-based supervision requires supervisors to make decisions about the types of risks to which supervised institutions are exposed, and whether or not the level of risk exposure, for each type of risk, is excessive relative to the institution's ability to manage it. These sorts of decisions were not typically required in the traditional CAMEL-based bank rating system (which tended to focus more on transactions than processes). The analytic decisions required for a risk-based supervisory approach differ from those which HKMA supervisory staff are accustomed to making, when assigning CAMEL ratings. We therefore believe that it would be extremely helpful to formalise a risk assessment framework, to assist supervisory staff in their risk-oriented analyses.

A formalised risk assessment process should integrate risk assessment principles into the HKMA's monitoring activities, including off-site surveillance and on-site examinations, to ensure that these activities are directed to collecting information of the optimum type and form for conducting risk assessments. Similarly, we believe that a formalised risk assessment framework will improve the conclusions drawn from on-site examinations.

Finally, we also believe that it is necessary to develop internal processes to ensure that the HKMA continues to deliver consistent, high quality bank supervision during and after the transition to risk-based supervision. In our study of the benchmark countries, we found that supervisors are focusing on ways to ensure the consistent application of policies and procedures, particularly when adopting the risk-based supervisory approach. During the transition, a quality assurance process can assist in ensuring that supervisory staff understand the new decisions that they are required to make and are making decisions in a consistent manner across the organisation. Thereafter, because a risk-based supervisory approach requires supervisory staff to make judgements about the quality of risk management processes, and to relate those judgements to the level of risk exposure, the process serves as an important supervisory internal control.

The supervisory policies and guidelines that the HKMA has developed to carry out its mission could be further enhanced through formalisation in certain areas. The HKMA's supervisory philosophy will allow it to supervise effectively, from identifying areas of emerging or increasing concern to addressing areas of excessive risk in individual institutions. We believe, however, that formalising a strategic planning process will be critical for the HKMA, if it is to stay abreast of the market changes identified, and to implement risk-based supervision throughout the organisation. Similarly, formalising a risk assessment framework will help ensure that all risks relevant in the Hong Kong context are identified, that excessive risks are identified in all institutions (even if assessment procedures vary based on relative size and complexity of institutions) and that risks are prioritised. In short, it will ensure that the HKMA has the information needed to develop institution-specific supervision strategies and allocate its resources accordingly.

We also believe that the HKMA should develop formal guidance to supervisory staff addressing decisions that must be made in the area of corrective actions, such as when corrective actions should be initiated, the type of action to consider taking and supervisory follow-up. Formal guidance would ensure consistency in decision-making and, if published, can encourage bank management to identify and address their own problems (to avoid the HKMA taking action or to mitigate the severity of the action likely to be taken) and help the public see corrective actions in the proper context, as a part of recovery and stabilisation.

As the HKMA has recognised, increasing staff capabilities is one of the most critical tasks in implementing risk-based supervision. The key to successful implementation of any supervisory approach is the quality of the people involved. We believe that over the short term, if the HKMA accepts the recommendations of this study, it will need to increase staff, particularly in speciality areas. We anticipate that, in the next year, the HKMA will need to hire a bank information technology expert and a fiduciary expert. Both positions will be very important to the development of staff and continued effectiveness of the HKMA supervisory approach.

Thereafter, the HKMA will need to continue to focus on improving its human resources processes and increasing the core capabilities of its staff over the next few years. Like many of its counterparts in the benchmark countries, the HKMA would benefit from conducting a training needs assessment, defining core capabilities (skills and knowledge) necessary at each staff level and establishing a formal performance evaluation process and a formal career development programme. Finally, given the importance of the training function and the skills required in this area, the HKMA should consider developing a separate training unit outside of the human resource function, with the objective of elevating its profile within the banking departments.

The quality and volume of information that the HKMA receives has been sufficient in the past. However, enhancements in information system capabilities are necessary to fully support a risk-based supervisory approach. The HKMA receives comprehensive financial and statistical information on authorized institutions in a relatively timely and efficient manner. The quality and accessibility of financial data at the HKMA is comparable to that of the other leading supervisors, and can be further improved through enhancements to its management information systems and increase its modelling capability.

EPSS has accomplished its original objectives and will need certain adaptations to accommodate additional supervisory information and further modelling capability. Risk analysis and modelling capability could also be improved by realigning the presentation of balance sheet and income statement components in its regulatory returns. If income statement components were broken down by product type, similar to the balance sheet and loan returns, yield analysis would be more comprehensive. In addition, property information from ad-hoc surveys and other survey information should become part of the core supervisory database.

Section 3 provides a suggested road map for implementing the recommendations set out in Section 2.8. This includes the approach to implementation in terms of sequence and timing and required skills. Recommendations regarding supervision made in this section and the suggested implementation sequence are summarised below in (see Table 2.9.1):

Table 2.9.1 Proposed sequence of supervisory change

Phases	Key recommendations
Phase 1	➢ Develop a formal strategic planning process. ➢ Develop a formalised risk assessment framework and quality assurance programme. ➢ Integrate risk management principles into the off-site surveillance activities. ➢ Revise on-site surveillance activities to more explicitly evaluate institutions' risk management capabilities. ➢ Develop guidelines as to types and degrees of supervisory responses. ➢ Define core capabilities, revise job descriptions and performance management processes, develop a formalised career development programme, perform a training needs assessment and expand current training curriculum. ➢ Create additional specialist teams. ➢ Enhance the supervisory database and management information systems. ➢ Assess risks associated with longer-term economic integration with Mainland China.
Phase 2	➢ Assess supervisory gaps and/or overlaps and options to address.

Source: *KPMG/Barents analysis*

3 Road map for regulatory and supervisory change

3.1 Introduction

Through an analysis of the global forces and trends in banking, we identified a number of implications for the Hong Kong banking sector during the next five years. Based on this analysis, we suggested four areas or strategic mandates for the HKMA to further develop the banking sector. These were as follows:

- ***regulatory and supervisory framework*** – to ensure that the regulatory and supervisory framework for Hong Kong remains appropriate, given the evolving financial markets;

- ***development of the financial system*** – to improve the competitive environment to ensure the positive benefits of global and local trends develop in the Hong Kong market, and Hong Kong remains an attractive international financial centre;

- ***safety and stability of the banking system*** – to ensure increasing levels of risk associated with global and local trends are prudently managed and that Hong Kong's exposure to systemic risk is mitigated; and

- ***efficiency and integrity of the financial system*** – to increase the level of transparency, both within the banking sector and across financial and capital markets, to allow the forces of market discipline to work more effectively.

In Section 1, we reviewed and made recommendations concerning specific issues dealing with banking sector regulation, including the four policies identified by the HKMA as requiring review. Major polices reviewed included the three-tier system, the remaining interest rate rules, the one-building condition and market entry criteria. Other regulatory issues identified during the course of this study were also reviewed (e.g. the need to enhance depositor protection). International comparisons and the views of market participants (gathered through surveys and interviews) were considered in developing these recommendations. Implementing the recommendations detailed in Section 1 will require changes to established policy or the Banking Ordinance.

In Section 2, based on our assessment of key components of the HKMA's supervisory process, recommendations were made concerning the HKMA's current supervisory approach. As requested by the HKMA, components evaluated included organisational structure, supervisory tools and techniques, supervisory polices and guidelines, human resources and the quality and volume of management information. An assessment of the implications of global trends in banking for banking supervision was also made. In developing supervisory recommendations to address these issues (e.g. blurring of financial markets), supervisory responses in other countries to address these issues were considered. Implementing the recommendations detailed in Section 2 will require changes to the HKMA's supervisory processes.

The purpose of this section is to:

- consolidate the regulatory and supervisory recommendations made in sections 1 and 2;
- identify change management issues in terms of programme management and communication management; and
- explain an implementation approach for recommendations in terms of sequence, timeframes and skills required.

Given the implications of the proposed changes for the local banking sector (especially regulatory recommendations), we have suggested an implementation approach that comprises three phases. Additionally, recommended changes to the remaining IRRs do not commence until 2000, in recognition of the expected difficult operating environment for banks during 1999.

3.2 Change management issues

Implementation of the above recommendations will be challenging because it requires the HKMA to enhance current skills and build expertise in speciality areas at the same time. We have made a number of recommendations that, once implemented, will affect the HKMA's working environment and the way its work is performed. Strong senior management sponsorship and support for the change is critical, as is the successful management of the change programme itself. At the same time, in order to receive support, both internally and externally, the HKMA must invest in communication.

3.2.1 Programme management

The success of many change management programmes (in delivering anticipated benefits) is often diminished because of ineffective project management. Our experience suggests that the most effective way to manage change is to establish a steering committee to lead the transformation. This steering committee must include individuals who represent the interests of the various departments most affected by the changes. Committee members need strong project management and communication support, and the ability to identify organisational barriers and develop innovative ways to overcome any *resistance to change*.

The steering committee will ultimately guide and co-ordinate all of the sub-groups, task forces or individuals that work on implementing specific recommendations. It will also be responsible for ensuring that all people involved share a common understanding of concepts, terminology etc, and that the required resources are available.

3.2.2 Communication management

Internal and external communication will be a priority, as any changes to banking regulations will need to be effectively communicated to government, legislators, market participants, the HKMA's staff and the general public. For example, simplification of the three-tier system (to two tiers) will require co-operation from DTCs and RLBs for the re-licensing process. Similarly, consumers will need to be educated regarding the implications of any changes (e.g. changes regarding current accounts and savings accounts).

Additionally, for example, if some form of deposit insurance scheme was eventually implemented, then it would only be effective if the consumers of banking services understood it and were willing to rely on it. Finally, effective internal communication is also essential. This will ensure HKMA staff (at all levels) understand the nature of the changes, the need for the changes (i.e. benefits) and their role, both during the transition and afterwards in the new operating environment. Communication management should include activities and deliverables relating to a general strategic approach to communication, objectives, messages, audiences, media and materials. Feedback mechanisms are also important during implementation. Centralised management of communication for a major and complex change programme is usually required.

3.3 Implementation approach

The proposed implementation approach is explained below in terms of:

- the required sequencing of recommendations;
- implementation timeframes for each recommendation; and
- the skills required for implementation.

3.3.1 Implementation sequence

The combined regulatory recommendations will have the impact of liberalising the market and increasing competition. Legislative considerations and market forces, along with the government's economic agenda, will therefore influence the timing of their implementation. We believe that, in the developing global financial market, Hong Kong as a major international financial centre will need to make these changes to remain competitive. The need for improved supervisory processes will therefore increase in the developing global financial market.

Although the recommendations relating to the supervisory approach could be implemented unilaterally by the HKMA, we consider that the two sets of recommendations, both regulatory and supervisory, would best be implemented in parallel using a phased approach. This is because both are largely driven by the same underlying forces and trends in the global banking environment. For example, the need to open up the market to increased competition in order to strengthen local banks' ability to compete will, at the same time, require improved supervisory processes to ensure that these banks are capable of dealing with such an environment. We propose the following three phases for implementation:

- ***Phase 1 (enhanced risk-based supervision)*** - the focus of Phase 1 is to allow the HKMA, in particular the supervisory approach, to be better positioned to address the risks and increased competition within the market place, prior to substantive changes to the regulatory framework.

- ***Phase 2 (market restructuring)*** - during Phase 2, the focus shifts away from the supervisory approach towards implementing a revised market structure. However, implementation of the enhanced supervisory approach should continue. Unlike Phase 1, which is principally internal to the HKMA, in Phase 2, the restructuring of the market may be expected to require considerable consultation with external parties. This consultation process should be started during Phase 1, to help speed up the process of implementation.

- ***Phase 3 (market liberalisation)*** - once the improved supervisory approach has been implemented and the market structure has been revised, it would be appropriate to reconsider the remaining barriers to a free and open market. Phase 3 concentrates on this area. However, if the recommended study concerning the need for explicit depositor protection (to be completed during Phase 2) requires changes to existing arrangements (e.g. the introduction of deposit insurance), then it would be appropriate to begin implementation of this prior to further liberalisation of the market.

Key recommendations to be implemented during each phase are summarised in Table 3.3.1 that follows:

Table 3.3.1 Proposed implementation approach

Phases	Regulatory recommendations	Supervisory recommendations
Phase 1 – enhanced risk-based supervision	*To enhance safety and stability:* ➢ Introduce financial disclosure by foreign branch banks (limited disclosure introduction in progress). ➢ Clarify the HKMA's role as lender of last resort. *To enhance competitiveness:* ➢ Relax the one-building condition to allow three branches for foreign banks. ➢ Begin monitoring process prior to start of deregulation of IRRs.	➢ Develop a formal strategic planning process. ➢ Develop a formalised risk assessment framework and quality assurance programme. ➢ Integrate risk management principles into off-site surveillance activities. ➢ Revise on-site surveillance activities to more explicitly evaluate institutions' risk management capabilities. ➢ Develop guidelines as to types and degrees of supervisory responses. ➢ Define core capabilities, revise job descriptions and the performance management process, develop a formalised career development programme, perform a training needs assessment and expand the current training curriculum. ➢ Create additional specialist teams. ➢ Enhance the supervisory database and management information systems. ➢ Assess risks associated with longer-term economic integration with Mainland China.
Phase 2 – market restructuring	*To enhance safety and stability:* ➢ Raise minimum capital requirements for local authorized institutions. ➢ Study of alternatives to enhance explicit depositor protection. *To enhance competitiveness:* ➢ Simplify the three-tier system. ➢ Reassess access criteria for RTGS. ➢ Stage 1 of deregulation of the IRRs (time deposits up to 6-days). ➢ Stage 2 of deregulation of the IRRs (current accounts).	➢ Assess supervisory gaps and/or overlaps and options to address.
Phase 3 – market liberalisation	*To enhance safety and stability:* ➢ Implementation of enhanced explicit depositor protection scheme. *To enhance competitiveness:* ➢ Stage 3 of deregulation of the IRRs (remove all remaining interest rate caps). ➢ Reduce the time period and relax the association with Hong Kong entry criteria.	

Source: *KPMG/Barents analysis*

Although each phase is quite distinct, the implementation plan for several recommendations will span more than one phase (see Table 3.3.2).

3.3.2 Implementation timeframes

The high-level implementation plan that follows provides an overview of the timing of both supervisory and regulatory recommendations. The following points should be borne in mind regarding the plan:

- it is a high-level plan only and a more detailed project plan would need to be developed, including critical path analysis;
- the timing of regulatory recommendations is, to an extent, dependent on outside forces (e.g. satisfactory market stability before removing the remaining interest rate rules); and
- the accuracy and reliability of all timeframes depends on the resources (number and quality) that the HKMA is able to allocate to the various implementation tasks.

Table 3.3.2 High-level implementation plan – key regulatory and supervisory recommendations

	Phase 1				Phase 2						Phase 3					
	1999				2000				2001				2002			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Supervisory recommendations																
Develop a formal strategic planning process.																
Develop a formalised risk assessment framework and quality assurance programme.																
Integrate risk management principles into the off-site surveillance activities.																
Revise on-site surveillance activities to more explicitly evaluate institutions' risk management capabilities.									continue to implement the process of enhanced risk-based supervision							
Develop guidelines as to types and degrees of supervisory responses.																
Define core capabilities, revise job descriptions and the performance management process, develop a formalised career development programme, perform a training needs assessment and expand the current training curriculum.									ongoing training							
Create additional specialist teams.																
Enhance the supervisory database and management information systems.																
Assess risks associated with longer-term economic integration with Mainland China.																
Assess supervisory gaps and/or overlaps and options to address.																
Regulatory recommendations																
Introduce financial disclosure by foreign branch banks (limited disclosure introduction in progress).																
Clarify the HKMA's role as lender of last resort.																
Relax the one-building condition to allow three branches for foreign banks.					review before further relaxing											
Simplify the three-tier system.		consultation period														
Raise minimum capital requirements for local authorized institutions.																
Assess RTGS access criteria.																
Study to enhance explicit depositor protection.																
Implementation of enhanced depositor protection scheme.																
Begin monitoring process prior to the start of deregulation of IRRs.	review															
Stage 1 deregulation of the IRRs (time deposits up to 6-days).																
Stage 2 deregulation of IRRs (current accounts).						review										
Stage 3 deregualtion of IRRs (remaining interest rate caps).										review						
Relax time period and association with Hong Kong entry criteria.																

Source: *KPMG/Barents analysis*

Phase 1 (enhanced risk-based supervision) timing considerations

The first step in enhancing the HKMA's supervisory approach needs to be the formalisation of its strategic planning process. Goals can then be established and teams identified to develop concrete action plans for the recommendations made regarding policy formulation, supervisory monitoring and organisational structure and operations support.

Building/enhancing the HKMA's Risk Assessment Framework must be completed before risk-based principles are fully integrated into the supervisory monitoring activities (e.g. on- and off-site processes and licensing). During the time that it is enhancing the Risk Assessment Framework, the HKMA should also conduct a comprehensive training needs assessment in order to understand its core skills and knowledge base.

Finally, a risk-focused approach must be incorporated into the HKMA's licensing procedures. However, this action can follow the enhancements to the Risk Assessment Framework and other supervisory monitoring activities (on- and off-site). Development of a standardised financial package for licensing activities could be done independently of the other tasks. Proposed centralisation of the licensing function will be dependent on the anticipated timetable for other changes.

Four regulatory changes are planned during this phase, two concerning market stability and two aimed at market liberalisation. The HKMA has already begun implementing financial disclosure for foreign branch banks. This should be completed at the beginning of Phase 1. The HKMA should at this stage take steps to clarify its role as lender of last resort.

As regards market liberalisation, the one-building condition should be relaxed to allow foreign branch banks up to three branches. The number of branches, that foreign branch banks are permitted, may be reviewed at a later date to assess whether a further relaxation should be made. During this phase, the monitoring period prior to deregulation of the IRRs should begin.

Phase 2 (market restructuring) timing considerations

Simplifying the three-tier system would be initiated at the start of market restructuring. As this is likely to have a significant impact on the market, it would be appropriate to begin a consultation period prior to this during Phase 1. In order to ensure that market stability and soundness are maintained, local authorized institutions' capital requirements should be revised for inflation and also to reflect any changes to their ability to access deposits under the new tiered system. Membership of the RTGS system could be reconsidered during this phase.

At the same time, there should be a study to review whether it would be appropriate to enhance depositor protection. Depending on the monitoring of results during 1999, and subsequent monitoring, Stage 1 (time deposits up to 6-days) and Stage 2 (current accounts) of deregulation of IRRs should be undertaken.

The key milestone for completion of this phase would be the introduction of revised legislation for bank licensing (including minimum capital requirements) and relaxation of the one-building condition. At the same time, the training for and implementation of the enhanced supervisory approach should be completed.

Phase 3 (market liberalisation) timing considerations

If the study recommends an enhanced explicit depositor protection scheme should be implemented in Phase 3. The third and final stage of deregulation of the IRRs should also proceed during this phase, following an assessment of the impact of the previous changes in Phase 2.

The final step in liberalisation of the market should be the relaxation of the market entry criteria, which restrict the ability of foreign banks and RLBs to set up locally incorporated banks. The need for this change should be carefully considered in the light of the market restructuring that occurred in Phase 2. For example, if foreign banks are given the ability to open a branch network (i.e. three branches initially), there is less likely to be requests to change these entry criteria. Therefore, the principal demand for this change would come from RLBs and foreign banks which, for reasons of asset size, cannot enter as a full branch bank. The desirability of opening up the market to these participants may need to be reconsidered at this stage.

3.3.3 Skills to support implementation

We believe that the best approach to implementing the majority of the recommendations is to create multidisciplinary teams that have a cross-section of skills. Teams may include internal experienced analysts/examiners and/or external individuals with specialised skills. In addition, teams should include individuals who are experienced in on-site and off-site activities.

The HKMA will need to determine if the skills available in-house are sufficient to execute action plans, particularly in regard to human resources (e.g. conducting a training needs assessment, improving the training programme and establishing a career development programme).

We envisage that, in the short-term, there is likely to be a internal shortage of people and skills to implement all proposed changes. External assistance may therefore be required. Independent programme and communications management may also be of value. These considerations need to be balanced with budgetary constraints as part of programme management start-up.

Appendix 1

Assumptions and results of scenarios in the financial sensitivity model

1.1 Introduction

The financial sensitivity model ("FMS") was developed to translate the results of the econometric model into financial terms for the 40 banks holding the large majority of HK$ deposits[1] and represents an effort to reconcile the assumptions of the econometric model with the actual financial impact IRR deregulation could have on banks' interest expense and net interest margins. As with the econometric model, the FSM does not attempt to predict how banks might pass on the higher cost of funds to preserve net interest margins, nor does it attempt to ascertain other income generating strategies that might be deployed to compensate for some of the increase in interest expense that might not be passed on through lending activities. However, the model does point out the initial impact on interest expense (on a weighted average basis for 1997) as a result of higher interest expense associated with differing scenarios.

One base case and ten adjusted scenarios have been devised and reviewed, mostly consisting of the impact of interest rate changes on total interest expense, and the consequent impact on net interest margins. The scenarios are summarised below and the results of the sensitivity analysis follow[2]. Table 1.2.2 summarises scenario assumptions. Table 1.3.1 provide synopses of results.

1.2 Summary of Scenario Assumptions

- ***Scenario 1*** - the base-case assumes that weighted average rates and deposit distributions are unchanged. Weighted average rates on the three IRR deposits were 0% for current accounts, 4.13% for savings accounts and 4.23% for 24-hour call deposits. Key features of the base-case are summarised below:

[1] These were the 40 institutions included in the HKMA interest rate survey.

[2] Detailed results and the spreadsheet model are with the HKMA. Monetary data supplied by the HKMA has been used in structuring the FSM to ensure that scenarios are reasonable based on current and historical indicators. Monetary data inputs included money supply, customer deposits by currency and authorized institution, yields on Exchange Fund Bills and Notes and interest rates such as Prime and HIBOR.

Table 1.2.1 Base-case scenario overview

	HK$million
Interest income	237,336
Interest expense	175,729
Net interest	61,607
Average assets	3,716,057
As a percentage of total accounts under HK$500,000:	
Current accounts	16.93%
Savings accounts	54.87%
24-hour call accounts	0.17%
Other	28.03%

- ***Scenario 2*** - the second scenario is similar to the base-case, but assumes that weighted average rates on savings and 24-hour call accounts are 50 basis points higher than in 1997. Weighted average rates on the three IRRs deposits were 0% for current accounts, 4.63% for savings accounts and 4.73% for 24-hour call deposits. Deposit distributions are unchanged.

- ***Scenario 3*** - the third scenario is similar to the second scenario, but assumes that weighted average rates on savings and 24-hour call accounts are 100 basis points higher than in 1997. Weighted average rates on the three IRRs deposits were 0% for current accounts, 5.13% for savings accounts and 5.23% for 24-hour call deposits. Deposit distributions are unchanged.

- ***Scenario 4*** - the fourth scenario draws from the econometric model, and assumes that weighted average rates on savings and 24-hour call accounts are 50 basis points below 1997 deregulated interest rates in comparable deposit categories above HK$500,000. One-week time deposits are used as a *comparable* deposit to savings deposits in the above HK$500,000 category. Weighted average rates on the three IRRs deposits were 0% for current accounts, 5.43% for savings accounts and 4.51% for 24-hour call deposits. Deposit distributions are unchanged.

- ***Scenario 5*** - the fifth scenario follows the logic of the econometric model and Scenario 4, but assigns an even narrower spread between comparable deposits below and above HK$500,000. The scenario assumes that weighted average rates on savings and 24-hour call accounts are 25 basis points below 1997 deregulated interest rates in comparable deposit categories above HK$500,000. Weighted average rates on the three IRRs deposits were 0% for current accounts, 5.68% for savings accounts and 4.76% for 24-hour call deposits. Deposit distributions are unchanged.

- ***Scenario 6*** - the sixth scenario follows the logic of the econometric model by assuming the 140 basis point *equilibrating* differential between savings account rates and 1-month time deposit rates for accounts under HK$500,000. The scenario assumes that weighted average rates on savings accounts are 4.71%. Current accounts remain at 0%, and 24-hour call account deposits remain unchanged from the base case at 4.23%. This is the first scenario where deposit distributions are changed. The rate change is assumed in this scenario to reconcile with the econometric model, with savings approximating 70% of total non-current account deposits[3] and 1-month deposits, accounting for about 12% of non-current account deposits in the under HK$500,000 category. This shift in resource flows is based on all 7-day call, 1-week, and 2-week deposits under HK$500,000 moving into savings accounts, as well as 20% of 1-month deposits under HK$500,000 also moving into savings accounts.

- ***Scenario 7*** - the seventh scenario is exactly like the sixth scenario, except that it also adds a 2.00% interest expense to current accounts. Thus, the scenario assumes that weighted average rates on current accounts are 2.00%, savings accounts are 4.71% and 24-hour call account deposits are 4.23%. This scenario assumes the same change in deposit distribution as in the sixth scenario.

- ***Scenario 8*** - the eighth scenario assumes virtually no change from the base-case (Scenario 1), except that current accounts receive 2.00% interest. Thus, the scenario assumes that weighted average rates on current accounts are 2.00%, savings accounts are 4.13%, and 24-hour call account deposits are 4.23%. This scenario assumes the same deposit distribution as in the base-case.

- ***Scenario 9*** - the ninth scenario assumes rates on current accounts and savings accounts receive the same interest rate (virtually eliminating any financial distinction between them) set at base-case rates for savings accounts in 1997. Thus, the scenario assumes that weighted average rates on current accounts are 4.13%, savings accounts are 4.13% and 24-hour call account deposits are 4.23%. This scenario assumes the same deposit distribution as in the base-case.

- ***Scenario 10*** - the tenth scenario assumes the *high-cost* impact of Scenario 5, plus the additional cost of current accounts receiving 2.00% interest. Thus, the scenario assumes that weighted average rates on current accounts are 2.00%, savings accounts are 5.68% and 24-hour call account deposits are 4.76%. This scenario assumes the same deposit distribution as in the base-case.

- ***Scenario 11*** - the eleventh scenario assumes the *highest-cost* scenario, in which weighted average rates on savings and 24-hour call accounts are 25 basis points below 1997 deregulated interest rates in comparable deposit categories above HK$500,000 (from Scenario 5), and where current accounts receive the same interest rates as savings accounts. Thus, the scenario assumes that weighted average rates on current accounts and savings accounts are 5.68% and 24-hour call account deposits are 4.76%. This scenario assumes the same deposit distribution as in the base-case.

[3] The econometric model shows a distribution of 72% savings among non-current account deposits in the < HK$500,000 category.

Table 1.2.2 Overview of FSM rate assumptions by scenario

Scenario	Assumptions
Scenario 1	No changes
Scenario 2	Savings and 24-hour call deposits under HK$500,000 are 50 basis points above the 1997 weighted average.
Scenario 3	Savings and 24-hour call deposits under HK$500,000 are 100 basis points above the 1997 weighted average.
Scenario 4	Savings and 24-hour call deposits are 50 basis points below 1-week and 24-hour call accounts above HK$500,000.
Scenario 5	Savings and 24-hour call deposits are 25 basis points below 1-week and 24-hour call accounts above HK$500,000.
Scenario 6	Savings rates are 140 basis points less than 1-month rates, savings and 1-month deposit account shares rise to 70% and 12% of non-current account deposits under HK$500,000.
Scenario 7	Savings rates are 140 basis points less than 1-month rates, savings and 1-month shares rise to 70% and 12% of non-current account deposits under HK$500,000. Current account pays 2.00%.
Scenario 8	Current accounts pay 2.00%, with no change in other rates from 1997.
Scenario 9	Current account interest rates rise to level equal to savings rates.
Scenario 10	Savings and 24-hour call deposits are 25 basis points below 1-week and 24-hour call accounts above HK$500,000, or 5.68% and 4.76% respectively. Current account interest rates rise to 2.00%.
Scenario 11	Savings and 24-hour call deposits are 25 basis points below 1-week and 24-hour call accounts above HK$500,000, or 5.68% and 4.76% respectively. Current account interest rates rise to level equal to savings rates, or 5.68%.

1.3 Summary of scenario results

The major findings from the various scenarios concern the degree to which these assumptions impact interest expense ratios, and the magnitude of interest expense that would have to be recovered (through higher lending rates or incremental fees) to compensate for otherwise foregone net interest income and margins. Table 1.3.1 provides an overview of the financial impact of adjustments made by scenario and summarises the financial impact of key interest expense developments on an aggregate basis, as well as in terms of the impact each scenario's results would have on the net interest margins of local and foreign banks.

Table 1.3.1 Financial impact of modelled adjustments to interest rate regulations by scenario

(HK$million, %)	Scen. 1	Scen. 2	Scen. 3	Scen. 4	Scen. 5	Scen. 6	Scen. 7	Scen. 8	Scen. 9	Scen. 10	Scen. 11
***Effective interest rate on*:**											
IRRs current accounts	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.00%	2.00%	4.13%	2.00%	5.68%
IRRs savings accounts	4.13%	4.63%	5.13%	5.43%	5.68%	4.71%	4.71%	4.13%	4.13%	5.68%	5.68%
IRRs 24-Hour call accounts	4.23%	4.73%	5.23%	4.51%	4.76%	4.23%	4.23%	4.23%	4.23%	4.76%	4.76%
Financial impact of adjustments:											
Total interest expense	175,729	177,487	179,244	180,288	181,167	176,817	178,979	177,891	180,195	183,330	187,310
Int. exp. on HK$ deposits > 500,000	42,100	42,100	42,100	42,100	42,100	42,100	42,100	42,100	42,100	42,100	42,100
Int. exp. on HK$ deposits < 500,000	24,864	26,621	28,379	29,423	30,302	25,951	28,114	27,026	29,330	32,465	36,445
Interest expense on IRRs deposits	14,524	16,282	18,040	19,084	19,963	17,155	19,318	16,687	18,990	22,125	26,105
Net differential in interest expense	-	1,758	3,516	4,560	5,438	1,088	3,251	2,163	4,466	7,602	11,581
Net interest income	61,607	59,849	58,091	57,047	56,168	60,519	58,356	59,444	57,141	54,005	50,026
If net interest margin is defined as net interest income/average interest earning assets, the result will be:											
Local banks (23 institutions)	2.51%	2.43%	2.36%	2.31%	2.28%	2.43%	2.34%	2.42%	2.32%	2.18%	2.01%
Foreign banks (17 institutions)	1.13%	1.10%	1.07%	1.05%	1.04%	1.10%	1.07%	1.09%	1.06%	1.00%	0.94%