THE EVOLVING SUPERVISORY APPROACH TOWARDS RISK MANAGEMENT *

Bank supervisory practices adapt as banking systems evolve. The first stage is direct regulation, the second is capital-based supervision and the third is risk-based supervision. The latter places more focus on identifying various types of risks and assessing banks' systems for managing them. It is reflected in recent proposals for capital requirements relating to market risk. The Asian region includes examples of different stages of evolution; in Hong Kong we are moving into the third.

Introduction

I am pleased to have this opportunity to speak to you at this Round Table on risk management. This is highly topical in the light of some of the problems which came to light in banks during 1995 – Barings and Daiwa being notable examples. The saving grace of these events is that they may have provided additional impetus to banks to strengthen their own risk management policies and practices. My intention in this speech is to discuss current supervisory attitudes towards risk management, placing this in the broader context of how supervisory systems have evolved. I will then say something about the current state of evolution of supervisory systems in this region, particularly in China and Hong Kong.

Risk management is of course not a new concept. Banks have traditionally placed limits on particular aspects of their activities such as exposure to individual counterparties and have adopted internal controls to try to ensure that the business is properly administered. However, this approach has been somewhat piecemeal. What is new is the emphasis on risk management as a more all-embracing and scientific concept whereby the various types of risk across the business as a whole are systematically identified, measured, monitored and controlled. What is also new is the interest of regulators is how these advances in risk management can be incorporated into supervisory techniques. This has been particularly evident in the context of the Basle Committee's deliberations on how to set capital requirements for the market risk in banks' trading portfolios, including derivatives. But it is also influencing the general supervisory approach of individual regulators, particularly in the United States.

The evolution of supervision

The Basle Committee, and indeed the US regulators, are however operating at the leading edge of supervisory theory. Many supervisory authorities are at an earlier stage of development in terms of their supervisory policies, reflecting in turn the state of development of their economic and financial systems. This disparity in supervisory evolution is apparent in the Asian region as it is in other parts of the world. Before going on to talk about how we approach the issue of risk management in Hong Kong, I will describe in a rather broad brush way the various stages in the evolution of supervisory policy and practice and how some of the countries in the region fit into this model.

Stage one: direct regulation

At the risk of simplification, it is possible to identify three main stages in the evolutionary process. The first is characteristic of systems where the banks are subject to tight official control – indeed a large part of the banking system may be under direct government ownership. In this environment, the banks are tightly regulated in terms of the interest rates they can pay and charge; the types of lending and the permitted range of activities they can undertake; the permitted growth in the loan book and the balance sheet; and their ability to set up new branches and subsidiaries at home and abroad.

In such a system, banks have only a limited incentive to pay close attention to risk. The banks may be subject to state direction of credit in the broader interests of economic development and at one extreme may simply act as a channel for policy loans approved by the government. There is thus

* This is the text of a speech by David Carse, OBE, Deputy Chief Executive (Banking) of the HKMA to the Robert Morris Associates Credit Risk Management Round Table on 22 January 1996.

little opportunity or indeed need for the banks to develop credit or other banking skills. Moreover, if they are state owned, the normal market disciplines which would apply to commercial banks which engaged in imprudent lending do not apply. This is not to say that the banks are free from risk. In systems where credit judgement and the pricing mechanism are not used to determine the allocation of resources, bad debts will inevitably arise as non-viable projects turn sour and state enterprises are unable to service their loans. The resultant losses are effectively part of the fiscal deficit residing in the banking sector.

The role of the supervisor in this environment is also somewhat limited, at least as far as risk assessment is concerned. The main preoccupation is likely to be to check that banks are observing the various rules and regulations which control their activities and perhaps also to verify the existence of assets. There is less concern about asset quality because the bad loans were originally put on in accordance with government policy and may be assumed to have explicit or implicit government backing. In such a situation there is only a rudimentary legal and policy framework for the supervision of banks.

Stage two: capital-based supervision

In the second stage of evolution, direct controls on the banks' activities are relaxed as part of a more general market-oriented approach towards the management of the economy. This involves the lifting of interest rate and exchange controls and the freeing up of lending and business restrictions. Banks are also given more freedom to internationalise their activities by setting up branches and subsidiaries abroad. Competition is further encouraged by permitting the entry of new banks, including those from abroad.

This deregulation brings huge potential benefits for the economy in terms of the ability of the banks to mobilise savings and channel these to commercially viable projects. There is however a substantial downside. Increased competition and greater commercial freedom may encourage the banks to take higher risks; and during the period when they were tightly controlled they are unlikely to have developed the banking skills, and particularly the expertise in credit assessment, to manage these risks prudently. It is thus not unusual to witness an explosion of bad debts in newly deregulated banking systems. Nor is this phenomenon confined to banking systems in developing countries. The 1980s saw similar lending excesses and mistakes in the US, Japan and Europe as the banks adjusted to a more liberalised environment. The Japanese banks are still recovering from the hangover.

The paradox therefore is that deregulation must be accompanied by increased, and more effective, supervision to avoid competitive excesses which might damage the banking system and trigger the need for financial support from the authorities. To serve this purpose in a deregulated environment the supervision must be indirect in the sense that it allows banks to take on risk in reliance on their own commercial judgement, but within a supervisory framework of rules and guidelines. Generally, this framework is summed up in the CAMEL rating system whereby banks are assessed by the supervisors, both qualitatively and quantitatively, in relation to capital, asset quality, management, earnings and liquidity.

A particular emphasis in this approach is ensuring that banks have enough capital to support the risks on their balance sheets. The supervisory focus on capital to a large extent reflects the work of the Basle Committee in producing a uniform minimum capital adequacy ratio which has now effectively become the world standard. This has played a major role in promoting banking stability and in establishing a more level playing field for international competition among banks. Essentially, banks are now required to hold adequate capital against the risks they run and it is more difficult for particular banks to gain an unfair advantage through excessive gearing.

The present capital-based supervisory approach does however have its limitations. While it takes some account of risk, it is largely concerned with the measurement of credit risk and the risk weightings which it uses for that purpose are rather crude: all customer loans with the exception of residential mortgage loans are weighted at 100%. Leaving aside this technical point, the business of many banks, in the developed countries at least, has moved away from the traditional business of taking deposits and making loans and is now more heavily concentrated in trading securities and derivatives. The Basle capital ratio in its

current form is obviously less relevant to such trading activities. Moreover, the fact that trading portfolios, and the amount of risk on the balance sheet can change dramatically in a short space of time means that the traditional supervisory technique of on-site examination becomes less useful. Clearly, there is limited value in trying to assess, at a particular point in time, the quality of assets in a portfolio which is in a constant state of flux. In the fast-moving and complex world of derivatives, there is a risk that the supervisors will get left behind if they rely too heavily on their old methods.

Stage three: risk-based supervision

Moreover, while adequate capital is vital to protect a bank against losses, it is clearly preferable if these losses do not arise in the first place. This has led to the third stage in the evolution of supervision where there is an increased emphasis on prevention rather than cure. The importance of capital adequacy is not neglected, but there is more focus on identifying the quantity of the risk within a bank and assessing the quality of the bank's systems for managing the risk.

In more detail, the key elements of this new approach are:

- first, to try to identify and classify in a more systematic fashion the various types of risk to which banks are subject. This means not simply the traditional credit and liquidity risks, but also a greater focus on market risk, interest rate risk, operational risk and the more intangible regulatory and reputational risks;
- second, to ensure that banks have adequate systems to measure, monitor and control these risks across the whole range of their activities;
- third, to give banks an incentive to improve their risk management techniques by looking for market-based solutions to supervisory problems;
- fourth, to ensure that adequate capital is held against the market risk, as well as the credit risk, in banks' portfolios, both on and off-balance sheet; and
- fifth, to supplement the discipline exercised by the supervisor with that exercised by the market through encouraging more public disclosure by banks of their financial positions, risk exposures and quality of risk management.

These principles underlie a number of current supervisory developments. There are the initiatives by the Basle Committee to encourage improvements in the risk management of derivatives and the incorporation by the US supervisors of formal ratings for risk management in their evaluations of banks. Both these approaches share common elements. There is a stress, for example, on the quality of oversight exercised by the board and senior management. This may seem like a statement of the obvious, but the example of Barings has shown that it cannot be taken for granted. It is essential that the board understands the true nature of all the businesses in which the bank is involved, establishes the risk tolerances of the bank and ensures that these are reflected in the policies and procedures for managing risk. A key part of this process is that risk should be monitored and controlled by units which are separate from the risk-taking businesses. This is part of a more general preoccupation with segregation of duties and checks and balances, which were clearly lacking in the Barings and Daiwa cases.

Market risk

The Basle Committee's proposals for new capital requirements for market risk also reflect the modern supervisory approach to risk management. As you are aware, the new regime incorporates two methods for measuring market risk – the so-called "standardised" method and the use of banks' own internal models. The standardised method is an example of the traditional "top-down" approach towards the measurement of capital adequacy whereby the supervisors prescribe a common methodology and standard risk weightings. As such it has been criticised for not giving a sufficiently accurate measure of the risks and for not providing enough incentive for banks to improve their own risk measurement techniques. To counter this criticism, the Basle Committee has decided to allow the more sophisticated banks to use their own internal "value-at-risk" models to calculate the capital adequacy requirement. Such

models attempt to quantify the risk of loss in trading portfolios as a result of movements in market prices, for a given level of probability and over a given holding period. The use of such models is subject to a number of quantitative and qualitative minimum standards, including that the model is subject to the oversight of an independent risk management unit with which senior management is closely involved. This emphasises that use of a model is not seen as a substitute for properly organised risk management.

A further aspect of the Basle Committee's approach is that models should be subject to rigorous back-testing in the sense that the predictions of the model as to how much might be lost in a given period are compared with actual changes in portfolio value. It is also being suggested that the results of such back-testing should be publicly disclosed, along with more information about the use which banks make of derivatives. The objective is to improve the transparency of the derivatives market and, through the discipline of increased disclosure, to give management an additional incentive not to take excessive risks and to ensure effective risk management.

Credit risk

In all this focus on market risk, there is a danger that credit risk ends up being somewhat neglected. However, experience has shown that despite the increased involvement of banks in trading activities, poor asset quality is still the main cause of problems in banks. Of course, supervisors expect banks to have systems in place to assess, approve and monitor individual credits within a prudent system of limits. However, such systems which tend to rely on the credit judgement of lending officers proved to be somewhat ineffective in preventing the large credit losses which featured in a number of banking systems around the world in the 1980s and early 1990s. Of course, many of these losses were simply due to bad and even reckless lending decisions. But there were also more fundamental failures to recognise the portfolio risks posed by concentration in certain types of lending, such as property and highly leveraged transactions, where there was correlated exposure to higher interest rates. Fierce competition also led to gross under-pricing of loans in relation to the risks which they carried.

In the more sober mid-1990s, banks which suffered these losses should be aiming to manage the portfolio risks in their loan book in much the same way as they manage the value at risk in their trading portfolio. This means trying to quantify the impact of risk factors (such as movements in interest rates) which may cause the value of the loan portfolio to decline, diversifying the portfolio to reduce volatility in its value and trying to estimate more precisely the probability of borrower default based on historical experience or on credit ratings. This in turn can lead to more accurate pricing of loans by ensuring that the rate charged is sufficient to cover the likely risk. This more scientific approach to controlling credit risk should be encouraged by the supervisors, while recognising its limitations. In particular, it is less suitable for less homogeneous groups of lenders such as small and medium-sized companies. For these types of borrower, the credit judgement of individual lending officers will continue for the time being to play the major role.

Supervisory systems in the region

Where do supervisory systems in the region stand in relation to the supervisory spectrum which I have described? A number of countries such as Malaysia and Thailand have quite advanced banking systems and their supervisory systems would fall firmly into the second stage of evolution. Indonesia is also in this category although its CAMEL-based approach is of more recent origin and is still developing. China is the major example of a country whose banking system is in the process of moving from a position of tight government control towards one where the major banks are supposed to operate on a more commercial basis. The supervisory system must be adapted accordingly and is presently moving out of the first into the second stage of evolution.

A good start has been made by putting in place a legal framework based on the Central Bank Law and the Commercial Bank Law.[1] The first of these gives the People's Bank of China greater autonomy and establishes more clearly its authority

1 The key provisions of these laws are given in pp69-71 of the May and August 1995 issues respectively of the *Quarterly Bulletin*.

over the banking and monetary systems. The Commercial Bank Law provides the framework for the commercialisation of the four specialised banks and the development of other commercial banks. It also provides the legal basis for the banking supervisory role of the People's Bank and lays down various ratios for asset-liability management by the banks including an 8% capital ratio and a maximum loan to deposit ratio of 75%. The People's Bank is now in the process of elaborating the policy framework for its supervision, for example by issuing rules on bank lending, and building up the capacity to enforce its rules and guidelines through on-site examination and off-site review. Within this framework, the banks are reportedly to be given more discretion over their own lending policies.

The position of Hong Kong

Hong Kong and Singapore are somewhat different from the other countries in the region in that they are both the homes for major international banking centres. As such the banking activities which they host are more technically advanced than those elsewhere in the region and the supervisory systems have had to respond to meet this challenge. To take Hong Kong's case, the results of a BIS survey conducted in 1995 showed that we are the fifth largest foreign exchange trading centre in the world and the seventh largest centre for derivatives. Having said this, much of this type of business in Hong Kong is conducted by the branches of foreign banks and the activities of the local banks are generally more traditional and less complex in nature, revolving around mortgage lending, trade finance and commercial lending. Naturally, our main supervisory focus in Hong Kong is on the local banks and our supervisory system is thus mainly geared towards that end. I would not therefore claim that we have yet reached the third stage of evolution in terms of our approach towards risk management.

We are however trying to move in that direction. The reasons for this are not to keep up with supervisory fashions for the sake of it. Rather it reflects a recognition that the forces of competition that have influenced banking trends elsewhere are likely to make themselves felt in Hong Kong to an increasing degree. Among other things, this will lead local banks to become more heavily involved in derivatives and other trading activities in order to diversify income and to meet the needs of their customers for these types of product. We are catering for this partly by introducing the Basle capital adequacy framework for market risk which we hope to have in place by the end of this year. It will also be necessary for risk management systems to be upgraded. In any case, we have to cope with the fact that a number of foreign institutions are already heavily involved in derivatives activities in Hong Kong. While we are not the main supervisor of these banks, we cannot ignore the fact that the business is being conducted in our territory. We thus have a strong interest in ensuring that it is properly controlled to avoid a Barings-type crisis here.

Against this background, we placed strong emphasis in 1995 on trying to ensure that banks in Hong Kong are conducting their derivatives activities in a prudent manner. A specialist team has been formed within the HKMA for that purpose and they have conducted a number of visits to the treasury operations of banks to check on the quality of controls. This was supplemented in 1995 by reports which we asked banks to commission from internal or external auditors after the collapse of Barings on their risk management systems for derivatives. These reports and our own treasury visits have in a number of cases revealed weaknesses in controls which we have been following up with the institutions concerned. We are planning to incorporate the lessons learned from our experiences during 1995 into a new guideline on risk management on derivatives which we hope to issue in the near future.

We have also accepted the principle that increased public disclosure has a part to play in encouraging sound risk management by banks. This is quite a radical change of approach in Hong Kong where until recently the philosophy was that "no news is good news" – in other words the banks should say as little as possible about their financial position and performance. In today's information conscious world this attitude is no longer possible. As the Japanese banks have found out to their cost, lack of disclosure is likely to lead the public and the rating agencies to think the worst. Over the last two years therefore banks in Hong Kong have begun to disclose much more information about their profitability and balance sheets, including the

publication in the forthcoming 1995 accounts of their inner reserves. Such increased disclosure is not without its risks. There is a danger that the new information may be misinterpreted by the market or that the market may react badly to the disclosure of bad news. But this means that bank management has to take extra precautions to ensure that there is no bad news to be revealed in the first place. This places responsibility on the board and senior managers to ensure that all the risks in the business are managed prudently. That, in essence, is the theme of my speech and I hope that it is a message that will be reinforced by this Round Table. ❋