THE IMPORTANCE OF RISK MANAGEMENT *

Sound risk management is the responsibility of banks' management and cannot be divorced from the overall quality of corporate governance. An effective risk management system requires identifying, measuring and limiting risk which depends on appropriate control and auditing procedures.

Introduction

It is fitting that your Association has chosen Hong Kong as the venue for its 1st Asian Conference on Finance and Trade. Hong Kong is one of the largest and most active banking centres in the world. In total we have almost 380 banks and deposit taking companies, from over 40 different countries. This includes 85 out of the world's top 100 banks. The external assets of the banking sector, at US$680 billion, are probably the fourth largest in the world, and our daily turnover in the foreign exchange market of US$91 billion as at April 1995 is the fifth largest, having grown by almost 50% over the last three years. This is a faster rate than any of Hong Kong's closest competitors apart from the UK.

My topic this morning is the importance of risk management. I approach this in the uncomfortable knowledge that to say that risk management is "important" for banks must seem like a statement of the obvious. I am sure that all the banks represented here would claim to be well aware of this message and to be pursuing conservative risk management policies. And yet we have witnessed the spectacle this year of one international bank destroyed and another severely wounded because they failed to observe the basic principle that banks should not allow the same individual to control both the trading of derivatives and securities and the settlement of these transactions. I am referring of course to Barings and Daiwa. Perhaps therefore the message that risk management is important cannot be repeated too often.

My topics in this speech will be the relationship between the role of the banking supervisor and bank management in ensuring the safety and soundness of banks; the relationship between risk management and the broader issue of corporate governance; and some of the key features of a prudent risk management system. In discussing these topics I will draw particularly on some of the lessons from the Barings and Daiwa affairs.

The role of management and supervisors

It is undeniable that the risks faced by banks have increased in recent years. Financial markets have become more volatile and this has exposed the banks to greater fluctuations in interest rates and exchange rates. The process of deregulation in many countries has bitten into banks' traditional sources of income, thus both encouraging and permitting them to diversify into other types of business activity, including proprietary trading in securities, foreign exchange and new products such as derivatives. The trend towards globalisation of banking has also led to the phenomenon of trading without frontiers whereby business is carried out in a number of physical locations around the world but is organised on an integrated functional or product basis. These developments have increased the pressure on management to control their risks in a more proactive manner.

The same forces are also leading to changes in the philosophy and practice of banking supervision. The process of deregulation has weakened the effectiveness of direct controls on banks' behaviour and has encouraged the development of a more indirect supervisory approach which aims to encourage sound management practices among banks. This recognises that the prime responsibility for ensuring the safety and soundness of banks rests with the board of directors and with management. This is sometimes portrayed as a denial of responsibility by supervisors, but in fact it is simple common-sense. Supervisors cannot spend all their time in banks looking over the shoulder of managers. Managers have to be allowed to get on with the job and to be allowed to take commercial decisions. Part of their job is to ensure that the

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banks they run have adequate capital and liquidity for the risks they are undertaking and that there are effective systems in place to manage these risks. The role of the supervisor is to provide guidance and to set minimum standards in these areas and to be prepared to step in if it appears that a bank is not being prudently managed and that the interests of depositors may be threatened. Such a supervisory approach tries to work with the market and to avoid over-regulation as much as possible. But its effectiveness does depend on the banks themselves exercising self-discipline and paying more than lip-service to the principles of sound risk management.

Risk management and corporate governance

The achievement of sound risk management cannot be divorced from the overall quality of corporate governance within banks. This depends first and foremost on the active involvement of the board of directors in defining the risk appetite of the bank and approving policies which ensure that this appetite is reflected in the business which the bank undertakes and the risks which it runs. Of course, it is a basic requirement that the directors and senior management should understand the nature of the business which they are supposed to be controlling. This was evidently not the case with Barings where senior management were apparently under the impression that they were running a low risk business in Singapore. However, this did not square with the substantial profits which were purportedly being earned in that business or with the huge funding which it required. It is surely a basic principle that a low risk business cannot generate high rewards and if it appears to be doing so, then something is wrong.

Banks also need to ensure that their remuneration policies are commensurate with their risk appetite. It is easy to give conflicting signals to employees. On the one hand they are told to control risk, on the other they are awarded bonuses which are linked to the performance of trading activities. The result may be to encourage excessive risk-taking. It is instructive to note that the individual in charge of Barings' futures operation in Singapore, Nick Leeson, was due to receive a bonus of £450,000 for 1994. Remuneration policies are, however, only one of a number of factors which influence the overall culture of an organisation. This culture will determine the way in which staff behave in practice, including the extent to which formal risk policies and procedures are actually observed rather than evaded. One of the major responsibilities of the board of directors and senior management is to ensure the correct culture is developed and maintained within the bank.

The organisation of banks also needs to be conducive to managing risk. It is necessary that clear lines of responsibility and accountability are established for all business activities. This was not the case in Barings where Nick Leeson reported to different managers in respect of different aspects of his business, such as proprietary trading and agency business. None of these managers seems to have been clear as to the extent to which they were supposed to be supervising the activities of the Singapore futures operation. Barings was an example of "matrix management" which many banks have adopted, including a number with operations in Hong Kong. The principle of matrix management is quite sensible and indeed it is designed to enable risks to be better controlled. Under it, product or function managers have responsibility for products on a global basis. This enables the risks in these products to be aggregated and to be centrally managed, thus making it easier to apply common standards and to hedge the risks. This is combined with local managers who should have an overview of the business as a whole within a particular geographical area.

Many banks operate such a matrix structure with success. However, it can suffer from two flaws, both of which were evident in the Barings case and which we have also witnessed at first hand in some banks in Hong Kong. First, as already indicated, it can result in confused reporting lines and blurred responsibilities where the local operation is reporting to a number of different product managers. Second, the local country manager may be either unwilling or unable, or not have a mandate, to exercise supervision over business activities conducted within his jurisdiction. In the case of Barings, for example, local management took a narrow view of their responsibilities for the futures operation in Singapore, considering that they were only responsible for logistical and administrative matters, including liaison with the local regulators.

It is however a fallacy to assume that a local trading operation can be fully controlled from a distance of several thousand miles. Each local market has its own distinguishing characteristics and practices which raise control issues which are specific to that market. The character, personality and behaviour of traders both on and off the trading floor needs to be observed at first hand and corrective action taken in the case of misconduct. The local manager needs therefore to have sufficient understanding of the business in his territory and the formal authority to ensure that proper standards of control are applied. This is also necessary so that he can communicate effectively with the local regulators. In the case of Hong Kong, we would expect the chief executive of a branch operation here to be fully accountable to the Monetary Authority for the conduct of all the business conducted in Hong Kong, even if he is not functionally responsible for parts of the business.

Key elements of a risk management system

I will now discuss the main features of what we expect to see in an effective risk management system.

The first point to make is that risk *management* does not necessarily mean risk *elimination*. If there was no risk there would be no reward. However, if a bank is going to take on risk, it should do so consciously and to an extent which is consistent with its capital strength and its overall management capability. This gets back to the point which I mentioned earlier that the board of directors should first of all determine its overall willingness to take on risk and then adopt policies relating to the management of risk which are consistent with that appetite. The board must also ensure that it is informed regularly of the risk exposure of the bank and should regularly re-evaluate its risk management policies in the light of changes in market conditions and in the financial position of the bank.

The board of directors is therefore at the apex of the risk management process. This process, which it is the responsibility of senior management to implement, involves the identification, measurement, monitoring and control of the various types of risk faced by the bank. The objective is to reduce the uncertainty which is inherent in future cash flows.

Some of the key elements of the process are as follows:

- first, it is necessary to identify the various types of risk to which the bank is exposed. These will include those risks such as credit risk, market risk, interest rate risk and liquidity risk which can to some extent at least be quantified. However, there are also certain other risks which are more intangible but whose effects on the bank can be no less devastating. Examples of this are the threat to an institution's reputation from involvement in improper or illegal activities such as money laundering or from attempts to cover up losses as in the case of Daiwa. Daiwa is also an example of what might be called regulatory risk, where a bank falls foul of the regulators through the failure to keep them fully informed.
- second, having identified the risks the bank should so far as possible attempt to measure and aggregate them across all the various trading and non-trading activities in which it is engaged. Risk depends on the size of the exposure, the period over which it will be held and the probability of loss. In the trading area, banks are increasingly trying to sum up these factors in a single measure known as "value at risk" which measures the potential loss in a portfolio associated with price movements of a given probability over a specified time horizon. In a major step forward the Basle Committee on Banking Supervision has accepted that banks may, subject to certain safeguards, use their own value at risk models to calculate the capital requirements in respect of the market risk in their trading portfolios. This is an example of what the Chairman of the Basle Committee has called "market-friendly" supervision – in other words looking for the solution to supervisory problems within the market itself.
- third, it is necessary to set limits for each aspect of a bank's activities and to ensure that these limits are adhered to.

This is best done by a risk management unit which is independent of those individuals who are responsible for conducting business activities. Such a unit was talked about but not implemented in the case of Barings. Moreover, the limits on the futures operation in Singapore were set only on a net basis and were not rigorously enforced. The trading positions in Singapore continued to increase in January and February 1995 despite the instructions of the Asset and Liability Committee of Barings that they should be reduced. The size of the Nikkei futures positions rose for example from about 6,000 contracts on 24 January 1995 to about 30,000 on 23 February. Barings continued to fund these positions, thus leading to its downfall.

- fourth, it is essential that there is effective segregation between the front office function of entering into transactions and the back office functions of recording, settling and reconciling the resultant trade. This is fundamental to preventing unauthorised and fraudulent practices as both the Barings and Daiwa cases have illustrated. The fact that one individual was in charge of both functions in Singapore meant that he could determine the way in which his trades were recorded, settled and funded.
- fifth, it is also essential that the unglamorous control procedures such as reconciliation are rigorously performed and discrepancies are followed up. In the case of Barings, there was a persistent failure to reconcile the funding for margin calls that was requested by the Singapore operation from London with the trades for which the funding was being requested. The discrepancy between the two amounts increased from about £15 million at the end of 1993 to about £100 million in the second half of 1994 and to £300 million by the time of the collapse. These excess payments were used to help fund the unauthorised trades in account 88888, but the source of the discrepancy was never tracked down by Barings.
- sixth, internal audit must be given the resources and expertise to do its job in checking internal controls and its recommendations, if found to be valid, must be implemented. In its preparations for its mid 1994 audit of the futures operation in Singapore, Barings' internal audit had clearly identified the twin threats posed by having one individual in charge of both trading and settlement and by the large funding requests in respect of margin calls which could not be properly reconciled. However, the recommendation in the audit report that Nick Leeson should no longer be directly responsible for the back office had not been implemented by local management by the time of the collapse.

The story of the Barings collapse as set out in the reports of the UK Board of Banking Supervision and the Inspectors appointed by the Singapore Government make fascinating reading. They illustrate the truth of the saying that "whatever can go wrong will go wrong". I would recommend that you read both reports. They will convince you better than I have been able to in this speech that neither bank management nor banking supervisors can afford to be complacent about the quality of risk management. Risk management is not simply important – it is essential for survival.