Recent International Trends in Banking Supervision and Regulation

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I am very pleased to be with you in Karachi today, and honored to be invited to give the Zahid Husain memorial lecture for a second time. It is a privilege to again join the distinguished lecturers who have spoken in this series, and I am delighted to add my tribute to the memory of Zahid Husain. He began a tradition of dedication and excellence at the State Bank that have inspired his successors through the years.

I have chosen to speak on the subject of bank supervision and regulation. A couple of decades ago, this would have been considered a very dry and uninteresting subject, the province of specialists in central banks, but of marginal interest to those outside. Times have changed. Dramatic banking crises, in developed and emerging markets alike, have drawn attention to the costs and dislocations associated with weak or malfunctioning banking systems. National authorities and the international community have recognized the key importance of strong financial systems in the preservation of overall economic stability. Bank regulation has risen to the top of the national and international policy agenda.

So I make no apology for devoting my lecture to recent and prospective trends in banking supervision. 2004 will be a critical year in the development of a new global framework for the regulation of banks. The Basel Committee has undertaken to reach agreement on a new capital adequacy framework (the so-called Basel II) by mid-year. This will be the most comprehensive overhaul of international capital adequacy standards since the first Basel accord promulgated in 1988. In my view, it is a critically important step in modernizing the framework for bank regulation. A setback to this process, for reasons I will go into later in this lecture, would have serious consequences.

Luckily, the Basel Committee is near agreement on most of the outstanding issues. But there is still a risk that last minute objections will delay or even derail the process. This would be extremely unfortunate. For although there are concerns about specific aspects of the new accord, there can be little doubt that it is a major advance over what we have now. To unnecessarily delay it in the hope that we may somehow discover a formula that can make everyone happy and at the same time, simplify the whole process, would impose severe costs.

Why Bank regulation? And why capital regulation?

Let me begin at the beginning by asking why societies choose to regulate banks. This would not have been thought of as a necessary question a couple of decades ago. Regulation in many countries was seen as a way of promoting the public policy agenda. But in a new age, where we expect markets to play an increasing role in the economy, and where we are suspicious of the capacity of governments to do better at allocating resources than private agents, it is worth asking.

The answer, of course, lies in the pivotal role played in almost all economies by the banking and payment system. Banks provide services without which the overall economy would find it very

difficult to function. The payment mechanism is the lifeblood by means of which providers of goods and services receive value in exchange for the products they supply. And banks enable the separation of savings and investment that is the fundamental basis for the accumulation of capital and the growth of productive capacity.

But an even more important reason for regulation lies in the externalities associated with the activity of financial intermediation. To a far greater extent than in other industries, bank failures impose costs that go beyond the shareholders and management of the institution concerned. If a banking system is underdeveloped, then economic progress is severely handicapped. If it is not prudently managed, then the economy may be subject to periodic disruptive crises. Similarly, a well-functioning banking system confers benefits that are not fully captured in the profitability of banks.

One can think of the justifications for regulation and supervision as falling into four categories: enhancing efficiency; avoiding financial crises; protecting taxpayer funds, and preserving competitive equity. Let me say a word about each of these in turn.

We often think about efficiency as being promoted by competition, rather than regulation. There is much truth in this. But in the case of banking, competition can lead to the mispricing of risk, especially when the banking system enjoys an implicit guarantee of support. Under these circumstances, bank depositors may be less vigilant in disciplining imprudent behavior by banks, leading the mispricing of risk. On the other hand, without guarantees, and without credible regulation, savers may be unwilling to place their funds with banks, retarding the development of the banking system and holding back investment and growth.

A second reason for prudential regulation is to protect systemic stability. We have known for a long time that, under disturbed conditions, banks may be subject to runs, and bank runs can lead to system-wide instability. The recent experience in the Asian crisis shows just how damaging a crisis in the banking system can be. And a closer examination of the causes of this crisis reveals the role-played in it by imprudent lending and portfolio management.

Related to this reason for bank supervision is the need to protect the interests of taxpayers. As I noted a moment ago, most banking systems enjoy the protection of an implicit safety net. That is to say, governments usually stand willing to intervene with support in order to prevent a banking system meltdown affecting the real economy. If robust supervision can prevent the need for official intervention, there will be a saving of public funds.

Finally, regulation can help prevent the development of competitive inequities, either within a country or across national boundaries. Such inequities can arise if banks are subject to different rules, or are prepared to take different degrees of risk, as a result of divergences in the degree of protection offered by an official safety net. In the presence of a safety net, markets will not penalize undercapitalized banks to the appropriate extent.

This is the beginning of the answer to my second question: why capital regulation? Minimum capital ratios serve two related purposes: they provide a cushion of resources to reimburse depositors in the event that a bank runs into solvency problems; and they increase the incentive on the owners of the bank to operate prudently. (The lower the capital, the greater the incentive to bank owners to operate imprudently, since they will keep the upside of risky bets, while being able to "put" the downside to others – depositors, shareholders, or the government).

Bank regulation: a historical perspective.
Later in this lecture, I will come to a number of the tricky practical issues involved in developing the new capital standards known as Basel II. Before getting there however, it is useful to review the journey that has brought us to this point.

I would highlight four trends that have characterized the evolution of banking supervision over my professional lifetime. They are:

i) An increasing risk focus;
ii) Growing comprehensiveness of supervisory activities;
iii) Increased internationalization of supervisory cooperation, and
iv) Strengthened consultation with the different interested parties.

Risk focus is now so widely accepted that it is hard to remember it was a secondary consideration not so long ago. Up until relatively recently, the ratios that banks were required to observe in their balance sheets served mixed monetary and prudential purposes. That is to say, ratios were seen as a way of influencing the supply of money and credit, rather than fostering the prudential behavior. One reason why prudential regulation received less emphasis may have been the fact that entry to banking was controlled, and the profitability of the industry was protected by restrictions on price competition (interest ceilings and the like). So the franchise value of a banking license provided a considerable cushion against losses due to mismanagement.

Now, with much greater competition, and the loss of protection that followed the dismantling of interest ceilings and other restrictions, there is much greater scope for mismanagement or misfortune to lead to solvency difficulties. To counter this, it has become more necessary for banks to hold tangible capital, and to relate this capital to the risks they run.

Bank supervision has also become more *comprehensive* over time. Initially, supervisors were primarily concerned with monitoring credit risk, reflecting banks' historical role as mobilizing funds, extending credit, and holding the resulting exposures on their books until maturity. But banks have significantly increased their trading activity in second years. They are exposed to a variety of market risks. They also face funding and liquidity risks, as well as operational risks. Supervisors have become increasingly aware of the need to track these risks, and to require the banks they supervise to hold adequate capital against them.

Next supervision has become more *international*. There are now many fora in which banking supervisors meet to exchange views, develop common regulatory structures and harmonize interpretations of supervisory guidelines. The Basel Committee is the oldest of such bodies, but under its aegis, there have sprung up a number of regional bodies, and other groupings. The reasons are not far to seek. Banking is a global business; in which may players are international in their scope of operations, and in which competition takes place across geographic borders. Supervisors need to cooperate in order to ensure the effective supervision of transnational banks. They also need to ensure that national rules are not mutually inconsistent, and to learn from each other the most effective techniques for supervising a fast changing and complex industry.

This leads to the final trend in supervision that I want to refer to. There has been an enormous increase in the degree of *consultation* in the development of regulatory rules. This applies both among supervisors, and between supervisors and the industry. The current debate on Basel II is a case in point. There have been three consultative documents, three quantitative impact studies, and several hundred sets of detailed comments during the process of developing the proposals. Supervisors from outside the Basel committee have also been brought into the process to an unprecedented degree. This has not resulted in a rapid or complete convergence in views, I am afraid to say, but nobody can fairly say that their views have not been heard and considered.

The evolution of supervision that I have just been talking about has been marked by a number of milestones. Probably the most important early steps were the creation of the Basel Committee in 1974, and the subsequent agreement on the Basel Concordat and first Basel Capital Accord in 1988. In 1996 came the addition of an agreement to include market risk, and the following year, 1997, the "Core Principles of Effective Banking Supervision" were promulgated.

By the time the Basel committee was established, it was becoming clear that common approaches to supervising internationally active banks were needed. This applied both to the question of which supervisor (the home or the host) had responsibility for different aspects of a bank's activities; and to the question of harmonizing supervisory requirements. Such harmonization was necessary to avoid the twin dangers of "regulatory arbitrage" and "competition in laxity"

The growth in competition, to which I referred earlier, also led to a number of problems, when banks became overextended on an inadequate capital base. The defining episode was probably the Latin American debt crisis that erupted in Mexico in late 1982, and quickly spread throughout the region. Many banks (especially in North America) were exposed to Latin American sovereign loans beyond the extent of their capital. The situation was controlled through forbearance on the part of regulators, but the lesson was to change supervisory rules so that such forbearance would not be needed in the future.

The answer was clear. Banks needed better risk management, and they needed to hold sufficient capital to cover the risks in their portfolios. This realization let eventually to the first Basel Capital Accord (Basel I) in 1988.

The First Basel Capital Accord

In the light of the experience in the early 1980s, it became apparent that bank capital standards would have to be tightened if stability was to be preserved without putting an unacceptable burden on public safety nets. The most acute need was in the internationally active banks whose health was most critical for the international financial system and that were subject to the greatest degree of cross-border competition. Since these banks were virtually all to be found in the large industrial countries, with open capital markets, it was natural that the regulatory authorities in the G10 countries should take the lead. Their objective was the narrow one of designing minimum capital standards that each of the countries concerned would apply to their internationally active banks.

The first Basel Accord (Basel I) was agreed in 1988 for introduction in 1992. As originally designed, it required internationally active banks from the G-10 countries to hold capital equivalent to at least 8% of their risk weighted assets, of which at least half (4%) had to be in the form of non-debt capital (equity and reserves). There were four "buckets" of risk. Lending to the

non-financial private sectors was for the most part fully risk weighted. Lending to governments, financial institutions and some real estate could attract power risk weights, on appropriate conditions.

The chosen figure of 8% did not have a particularly strong analytical foundation. It happened to be close to the risk-holding practice in most industrial countries. However, it did require substantial increase for banks in some countries, notably Japan and France.

Basel I was noteworthy in a number of respects. It was the first international agreement among supervisors. This reflected the growing awareness that financial markets were becoming increasingly integrated, and that divergent regulatory requirements could cause competitive inequities and systemic vulnerabilities. A second notable feature was the explicit introduction of risk weights as a guide to capital holdings. We have subsequently become so accustomed to relate capital to risk that it is easy to forget how novel this feature was at the time it was introduced. The risk weights themselves were relatively crude, and eventually, as we will see in a moment, created almost as many problems as they solved. But they were the beginning of a process that was to be refined in subsequent rulings.

A final point to note is that the Basel accord was an informal accord among a limited group of supervisors. But because it became a market standard, it spread to a much wider range of countries and institutions. It is an interesting example of "soft law", i.e. informal standards that have as much, or greater, effective acceptance than formal regulation.

Basel I achieved a number of important goals. Most significantly, it contributed to increasing the amount of capital in the banking system, especially in jurisdictions where explicit or implicit government support had allowed banks to become undercapitalized. Second, it ushered in a greater degree of risk awareness in financial institutions, and was the basis for a series of risk management recommendations that were made subsequent to the original Accord. Improved risk management and a stronger capital base enabled banking systems to weather the greater economic volatility of the 1990s with much fewer disruptions than might otherwise have been the case.

It was not to be expected, however, that the simplified rules of Basel I would solve all the problems of bank regulation. Even at the time, it was introduced, supervisors realized that it would have to be adapted over time, as supervisory techniques were refined, and the activities of banks themselves evolved.

Developments subsequent to 1988 highlighted a number of features of Basel I that needed to be addressed:

i) The credit risk "buckets" were too crude to capture adequately the gradations in credit quality
ii) Market and operational risk were not dealt with in the original accord
iii) No explicit account was taken of the effect of diversification or concentration in reducing or increasing risk
iv) Risk mitigation techniques (for example, the use of derivatives or securitization) were insufficiently recognized.
v) Little account was taken of supervisory requirements in emerging and developing countries, where there were more fundamental needs them capital standards.

The significance of these decisions should not be overstated. In the United States, Basel II will apply to banks representing more than 99.5% of the sector cross-border activity. And all other banks, with mainly domestic focus, will continue to be subject to high-quality, risk-sensitive supervision.

In the emerging markets, not all banking systems are ready for the data and analytical requirement of Basel II. The decision to delay its implementation should not be seen as a rejection of its basis thrust. It is far better to implement the Accord effectively with a delay than to adopt proposals on an unrealistic time-scale. The Basel Committee has made it clear that it is fully sympathetic to emerging markets delaying full implementation of the Accord, where they are working to improve their capacity to do so in the medium term.

To sum up, banking supervision has traveled a long journey over the past quarter century. This evolution has given us more robust and risk sensitive banking systems. But it is a journey that can never be considered over. Future changes will continue the tradition of adapting to changes in the market environment, and striving to make regulatory rules support the risk management strategies of prudent and efficient financial institutions. This focus should not be regarded as a burden on the financial system. Indeed, it is the best guarantee of its stability, and its durable contribution to development.

These gaps became increasingly troublesome with the passage of time. Some were dealt with through the adoption of amendments to Basel I. Some however, had to await the development of the revised framework of Basel II.

One example of adaptation of the initial Accord was the Market Risk amendment which was adopted in 1996. The growth of securitisation and the increasing involvement of major banks in capital market activities had raised the importance of market risk relative to pure credit risk. Modern metrics for measuring market risk, such as "Value at Risk" (VaR) had become available by that time and were fully utilized in the 1996 amendment.

A second evolutionary step was to take more explicit account of the needs of developing countries. Like their counterparts in industrial countries, emerging market supervisions needed a standard for capital adequacy. And most of them accepted the Basel I framework. But they also needed more basic international assistance in developing the legal framework for supervision, licensing rules, techniques of supervision, bank merger practices, guidance for dealing with troubled banks, and so on.

This need was crystallized following the Mexican crisis of 1994-95 and found its response in the "Core Principles for Effective Banking Supervision" produced by the Basel Committee in 1997. There is not time here to go into the Core Principles in detail, but certain key features are worthy of comment. First, unlike the Basel Accord, the Core Principles deal with all features of the regulation of banks, from initial authorization through ongoing supervision, to provisions for closure and exit. And the Core Principles provide guidance on such questions as the desirable degree of independence of supervisors, and the legal basis of supervisory judgements. A second feature of the Core Principles is that they represent a joint effort of supervisors from the G10 industrial countries, and a representative set of key emerging market countries. In this way they combine the credibility and robustness of developed country standards with a greater understanding of the particular requirements of emerging market conditions.

Although the inclusion of market risk and the development of the "Core Principles" widened the applicability of Basel I, the passage of time revealed other problems that were not so amenable to solution within the context of the original accord.

Perhaps the most obvious weakness of Basel I is the lack of discrimination in credit risk. Credits are divided into four risk "buckets" and most lending to the non-bank private sector is treated as having the same level of risk. It was initially felt that supervisors should not try to second-guess credit decisions of banks, relying instead on required capital to be sufficient to cover a portfolio of average riskiness. This proved inadequate, however, given the incentives it created for banks. It fatally reduced the risk sensitivity of Basel I, a major reason why Basel II has become so essential.

In effect, banks were being required to hold excessive capital against good credits, and perhaps not enough against poor risks. Their natural response was to cut back on lending to highly credit-worthy entities, where the returns did not justify the associated capital holding costs. Another manifestation of the same phenomenon was the tendency to "sell down" senior participations in loans, or to securitize relatively safe assets (such as mortgages) and sell them in the capital markets.

At the other end of the credit spectrum, minimum capital rations did not provide an effective regulatory constraint against the accumulation of higher risk lending. Since the returns of this lending were above the cost of capital, the only constraint was the bank's own evaluation of default risk. So a common minimum capital ratio had the perverse consequence of encouraging high risk lending at the expense of lower risk lending.

There were other peculiarities in the way that Basel I worked, as well. For example, sovereign lending was subject to the "Club" rule": lending to OECD members was treated as risk-free, whereas lending to non-OECD countries was 100% risk-weighted. As a rule of thumb, this was reasonably accurate; still, it was hard to justify credit judgments on the basis of membership in a particular international organization, particularly when it was easy to point to cases where a non-member had a higher credit rating than a given member.

Apart from the crudeness of credit risk weights, Basel I suffered from the absence of any explicit allowance for operational risk. Experience in recent years has revealed the growing dangers of loss due to operational failures (for example, fraudulent behavior by employees, breakdowns in controls, IT breakdowns, physical destruction, and so on).

Another weakness stemmed from the "building block" approach to overall risk. The capital requirements for each loan in a portfolio were simply added up to get the overall capital requirement, without regard to the correlations among risks. In other words, the impact of concentration or diversification was ignored.

Diversification is not the only way of mitigating risk. Other techniques, such as securitisation, hedging, and the use of derivatives have grown in importance as financial engineering has become more sophisticated. These , too, are only partially reflected in Basel I capital calculations.

By the late 1990s, these shortcomings in capital regulation had become sufficiently widely recognized to make a revision of the Basel accord necessary. The preparation of Basel II was begun in 1998. Now, six years and three consultative documents later, it appears as though Basel II will be agreed by the middle of this year. Even this is not certain, however. A number of issues remain to be resolved, and some participants in the process have voiced doubts about the acceptability of the likely solutions.

Basel II

Basel II attempts to deal with some of the criticisms of the original accord through a three pillar approach. Pillar 1 is minimum capital ratios, but with an expanded and more sophisticated set of risk weights. Pillar 2 is supervisory oversight and pillar 3 is market discipline.

Pillar 1 represents a comprehensive reform of the existing risk-weighted minimum capital requirements. It does not make any changes to the way in which capital is defined, nor does it amend calculations for market risk. It does, however, introduce a significantly new approach to assessing credit risk, and it provides for capital requirements against operational risk. Let me briefly summarize some of the most important innovations.

The first is in the degree of choice offered to banks and their supervisors. There are three different approaches to the measurement of credit risk. Basically, these different approaches allow for different degrees of sophistication in bank's risk assessment capabilities. The simplest (or standardized) approach is similar to the approach in Basel I in that banks are required to slot

their credit exposures into supervisory categories based on observable characteristics (e.g. the sector of the borrower or the nature of the transaction).

A second innovation is the use of banks' internal models of risk under the more advanced approaches to credit risk. This recognizes that for many banks, their own models are likely to measure credit risk more effectively than supervisors' assigned weights. Such models naturally have to be reviewed by supervisors to ensure that they are adequately robust.

Another important development of Basel II is a more systematic approach to credit risk mitigation. The enormous advances in credit risk mitigation techniques in recent years, particularly structured securitization and credit derivatives, could not hitherto be used to full advantage by bank. Under Basel II, these are integrated into the internal ratings based (IRB) approaches, and given expanded use in the standardized approach. The encouragement of these tools of credit risk management is another reason why Basel II is urgently needed.

Lastly, Pillar 1 includes for the first time an explicit charge for operational risk. As with credit risk, three different options can be chose, with increasing degrees of complexity corresponding to the measurement capacity of individual banks.

Pillar 2 can be thought of as capturing those aspects of capital requirements that are not adequately reflected in a quantified minimum capital ratio. These include the quality of internal risk assessment and controls, and the degree of concentration of diversification in a bank's portfolio. Supervisors are expected to exercise judgment in these matters, to encourage remedial action where appropriate, and to require additional capital holding where specific weaknesses are observed. Basel II offers some guidance on how such supervisory discretion it to be exercised. It is also expected that ongoing co-operation amongst supervisory authorities will help promote a reasonably harmonized approach.

Pillar 3 is aimed at enhancing market discipline through disclosure requirements that permit a better assessment of a bank's risk profile. Those observers who believe market discipline is more effective than regulatory requirements have been somewhat disappointed that Pillar 3 did not go further. Two proposals they believe could be effective in this connection are

(i) the mandatory issue of subordinated debt, and
(ii) the pre-commitment of capital.

Subordinated debt, by being fully exposed to losses in the event of default forces holders of such to track carefully the health of a bank. Any significant increase in the spread on such debt could therefore by regarded as an early warning of trouble ahead. The pre-commitment of capital would involve banks judging for themselves how much capital they needed, based on their assumed vulnerability to loss. If the capital "pre-committed" was insufficient to preserve some prescribed minimum ratio, a bank would be subject to pecuniary or other penalties.

In my view, both of these proposals have promising elements, which warrant further study. However, neither is sufficiently mature as yet to be used as a basis for regulation. Subordinated debt is only an efficient signal if the market believes the authorities are willing to let a bank fail. And pre-committed capital requires penalties to be levied on a bank precisely at the moment when it is most vulnerable. These aspects of the proposals need to be addressed before they can be considered suitable for adoption as a supervisory tool.

Criticisms of Basel II
Let me now touch on some of the criticisms of Basel II, before ending with an assessment of whether these objections are likely to prevent timely implementation of the proposals.

One complaint is that the Basel II proposals are overly complex. To this there are two responses; first that there indeed is an increase in complexity over Basel I, but that this is necessary to adequately take account of the complexity of the task. Risk management is complex and it serves no useful purpose to try and artificially simplify it. The second response is that modifications to the original proposals have gone a good way in the direction of reducing complexity. As I noted earlier, the standardized approach to the measurement of credit risk bears many similarities to current practices.

Another objection concerns the role assigned to external credit rating. Few people love credit rating agencies, and it is easy to point to their mistakes. Once again, however, one has to ask what is the alternative? If supervisors are to set minimum capital requirements, there needs to be an objective standard for measuring the risks concerned, if banks internal models are not adequate for this purpose. Revisions to the original proposal have gone some way in reducing the role of credit agencies. External ratings now play an optional role in the standardized approach. Supervisors are able to rely on these only in circumstances where these judgments seems likely to be reliable.

A further criticism concerns that treatment of operational risk. Admittedly, the basis for measuring operational risk is crude. But to ignore it altogether would be to ignore what has been in recent years a major source of bank losses. Its inclusion in Basel II at least moves in the right direction of focusing attention on operational risk and providing incentives to try and reduce it.

Finally, many have been concerned that Basel II may have adverse effects on competitive equity. Naturally these complaints are heard most loudly from those institutions who fear their regulatory capital requirements might rise. Those who believe that Basel II will help them manage their capital more efficiently tend to keep silent. In response to comments and also to the Quantitative Impact Studies conducted by the Basel Committee, a number of modifications have been made to better align risk with capital requirements and thus to address some of the more justified criticism. What cannot be avoided, however, and indeed is desirable, is that banks with high quality risk assessment and control will enjoy an advantage over banks whose risk management is more rudimentary.

Timing and Implementation
Let me turn finally, to future prospects. How will the continuing debate about certain aspects of Basel II effect the likelihood of eventual agreement? What is the time-frame for implementation?

The Basel Committee remains committed to the objective of agreement on the new Accord by mid-year. There have been objections substance and timing, particularly from smaller banks and their supervisors in the United States. In the end, however, I do not expect these objectives to prevent agreement on more or less the agreed time.

What about implementation? Much has been made of the fact that the United States will only apply Basel II to it largest banks, while some emerging market countries (China and India, for example) do not plan to adopt the Accord in 2007.