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BASEL II FRAMEWORK & IT'S IMPLEMENTATION. "A CASE STUDY ON BASEL II IMPLEMENTATION & RISK MANAGEMENT FRAMEWORK IN ALLIED BANK LIMITED"

MBA –FINAL THESIS

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NUST INSTITUTE OF MANAGEMENT SCIENCES

BASEL II FRAMEWORK & IT'S IMPLEMENTATION.

"A CASE STUDY ON BASEL II IMPLEMENTATION & RISK MANAGEMENT FRAMEWORK IN ALLIED BANK LIMITED"

by

Masood Khalid

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A THESIS APPROVED FOR THE DISCIPLINE OF FINANCE & INVESTMENT

BY Thesis Committee

____________________________, **Chairperson**

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Executive Summery

On going regulatory changes such as Basel II are intertwining the process banks use to manage the finance and risk areas of their business. Successful banks will use new compliance requirements to create a stronger, more integrated finance and risk management platform so that they can than leverage for a broad range of business goals. Banks that move in the direction can expect a more rapid ROI through greater operational efficiency, improved productivity and higher share prices. The ideal Basel II solution provides a standard, open platform for a centralized enterprise wide risk and financial management system that is process oriented and can be customized to bank specific needs.

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Table of Content

S.No	Topic	Page No.
1.	Introduction	08
2.	History of Basel committee and its membership	09
3.	Main Framework	17
4.	Basel II Framework	18
5.	Distinct Characteristics of Basel II	18
6.	Why Basel II	19
7.	Structure of Basel II Framework	20
8.	First Pillar	21
9.	Second Pillar	21
10.	Third Pillar	24

11.	Basel II – Superior and all encompassing architecture	24
12.	Basel II – as a case study	28
13.	Criticism	29
14.	General Economic Scenario of Pakistan	31
15.	State Bank of Pakistan and its response towards Basel II	35
16.	Allied Bank Limited	40
17.	Risk Management in Allied Bank Limited	40
18.	Risk responsibilities on Allied Bank Limited	41
19.	Risk Management Framework in ABL & Progress So Far	50
20.	Conclusion	52
21.	Appendix	53

Introduction

[1]Basel II is the term which refers to a round of deliberations by central bankers from round the world. In 1988, the Basel Committee (BCBS) in Basel, Switzerland, published a set of minimal capital requirements for banks. This is also known as the 1988 Basel Accord, and was enforced by law in the Group of Ten (G-10) countries in 1992, with Japanese banks permitted an extended transition period. Purpose of the original 1988 accord was twofold:

First, it aimed at creating a "level playing field" among banks by raising capital ratios, which were generally perceived as too low in many countries; and second, it also aimed at promoting financial stability by adopting a relatively simple approach to credit risk with the potential to distort incentives for bank risk-taking. The guidelines of Basle accord were originally adopted by the central banking authorities from 12 developed countries (all G-10 countries plus Luxembourg and Switzerland) in July, 1988. Their implementation started in 1989 and was completed four years later in 1993. Basel I served banking industry well since its introduction in 1988 but it lagged behind the financial market developments and innovation. It increasingly became outdated and flawed as it relied on a relatively crude method of assigning risk weights to assets, emphasizing mostly on balance sheet risks relative to multiple risks facing financial firms today. Furthermore, it offered a regulatory approach to capital determination and standard setting which did not capture fully the range of large and complex banking operations and the accompanying range of diverse set of economic risks. Addressing the perceived shortcomings and structural weaknesses of Basel I, the Basel II Accord – a landmark regulatory framework – offers a newer and comprehensive approach and methodology for financial sector regulatory capital calculation which recognizes well the advancements and innovations in banks' businesses, policies and structures and the accompanying financial engineering and

[1] http://en.wikipedia.org/wiki/Basel_I

innovation. The relevance and significance of Basel II stems from its ability to recognize effectively the different types of risks facing industry and the new products as well as off balance sheet transactions. Basel I is now widely viewed as outmoded, and a more comprehensive set of guidelines, known as Basel II are in the process of implementation by several countries.

History of the Basel Committee and its Membership

The Basel Committee on Banking Supervision was established as the Committee on Banking Regulations and Supervisory Practices by the central-bank Governors of the Group of Ten countries at the end of 1974 in the aftermath of serious disturbances in international currency and banking markets (notably the failure of Bankhaus Herstatt in West Germany). The first meeting took place in February 1975 and meetings have been held regularly three or four times a year since.

The Committee's members come from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, United Kingdom and United States. Countries are represented by their central bank and also by the authority with formal responsibility for the prudential supervision of banking business where this is not the central bank. The present Chairman of the Committee is Mr Nout Wellink, President of the Netherlands Bank. The previous Chairmen were, from 1974-77, Sir George Blunden (then Executive Director, Bank of England); from 1977-88, Mr W P Cooke (Associate Director, Bank of England); from 1988-91, Mr H J Muller, (Executive Director of the Netherlands Bank); from 1991-1993, Mr E Gerald Corrigan, (President of the Federal Reserve Bank of New York); from 1993 to 1997, Dr T Padoa-Schioppa (Deputy Director General of the Bank of Italy); from 1997 to 1998, Mr T de Swaan (Executive Director of the Netherlands Bank); from 1998 to 2003 Mr William J McDonough (President and Chief Executive Officer of the Federal Reserve Bank of New York); and from 2003 to June 2006, Mr Jaime Caruana (Governor of the Bank of Spain).

The Committee provides a forum for regular cooperation between its member countries on banking supervisory matters. Initially, it discussed modalities for international cooperation in order to close gaps in the supervisory net, but its wider objective has been to improve supervisory understanding and the quality of banking supervision worldwide. It seeks to do this in three principal ways: by exchanging information on national supervisory arrangements; by improving the effectiveness of techniques for supervising international banking business; and by setting minimum supervisory standards in areas where they are considered desirable.

The Committee does not possess any formal supranational supervisory authority. Its conclusions do not have, and were never intended to have, legal force. Rather, it formulates broad supervisory standards and guidelines and recommends statements of best practice in the expectation that individual authorities will take steps to implement them through detailed arrangements – statutory or otherwise – which are best suited to their own national systems. In this way, the Committee encourages convergence towards common approaches and common standards without attempting detailed harmonization of member countries' supervisory techniques. More than 100 documents providing guidance on a wide range of supervisory topics appear on the BIS website.

One important objective of the Committee's work has been to close gaps in international supervisory coverage in pursuit of two basic principles: that no foreign banking establishment should escape supervision; and that supervision should be adequate. In May 1983 the Committee finalized a document Principles for the Supervision of Banks' Foreign Establishments which set down the principles for sharing supervisory responsibility for banks' foreign branches, subsidiaries and joint ventures between host and parent (or home) supervisory authorities. In April 1990, a Supplement to the 1983 Concordat was issued with the intention of improving the flow of prudential information between banking supervisors in different countries. In June 1992 certain of the principles of the Concordat were reformulated as Minimum Standards. These Standards were communicated to other banking supervisory authorities who were invited to endorse them, and in July 1992 the Standards were published.

As an outcome of the ongoing collaboration in the supervision of international banks, the Committee has addressed a number of related topics. It has collected information on most national systems for supervising banks' foreign establishments; it has examined the obstacles to effective supervision arising from bank secrecy regulations in different countries; and it has studied authorization procedures for new foreign banking establishments. In October 1996, the Committee released a report drawn up by a joint working group also containing supervisors from offshore centers, which presented proposals for overcoming the impediments experienced by banking supervisors in conducting effective consolidated supervision of the cross-border operations of international banks.

The topic to which most of the Committee's time has been devoted in recent years is capital adequacy. In the early 1980s, the Committee became concerned that the capital ratios of the main international banks were deteriorating just at the time that international risks, notably those vis-à-vis heavily-indebted countries, were growing. Backed by the Group of Ten Governors, the members of the Committee resolved to halt the erosion of capital standards in their banking systems and to work towards greater convergence in the measurement of capital adequacy. This resulted in the emergence of a broad consensus on a weighted approach to the measurement of risk, both on and off the balance sheet.

There was a strong recognition within the Committee of the overriding need for a multinational accord to strengthen the stability of the international banking system and to remove a source of competitive inequality arising from differences in national capital requirements. Following comments on a consultative paper published in December 1987, a capital measurement system commonly referred to as the Basel Capital Accord (or the 1988 Accord) was approved by the G10 Governors and released to banks in July 1988. This system provided for the implementation of the framework with a minimum capital ratio of capital to risk-weighted assets of 8 percent by end-1992. Since 1988, this framework has been progressively introduced not only in member countries but also in virtually all other countries with active international banks. In September 1993, a statement was issued confirming that all the banks in the G10 countries with material international banking business were meeting the minimum requirements laid down in the 1988 Accord.

The 1988 capital framework was not intended to be static but to evolve over time. In November 1991, it was amended to give greater precision to the definition of those general provisions or general loan-loss reserves which could be included in capital for purposes of calculating capital adequacy. In April 1995, the Committee issued an amendment to the Capital Accord, to take effect at end-1995, to recognize the effects of bilateral netting of banks' credit exposures in derivative products and to expand the matrix of add-on factors.

The Committee has also undertaken work to refine the framework to address risks other than credit risk, which was the focus of the 1988 Accord. In January 1996, following two consultative processes, the Committee issued the so-called Market Risk Amendment to the Capital Accord, effective end-1997 at the latest, designed to incorporate within the Accord a capital requirements for the market risks arising from banks' open positions in foreign exchange, traded debt securities, equities, commodities and options. An important aspect of this amendment is that, as an alternative to a standardized measurement method, banks are permitted, subject to strict quantitative and qualitative standards, to use internal value-at-risk models as a basis for measuring their market risk capital requirements. Much of the preparatory work for the market risk package was undertaken jointly with securities regulators and the Committee believes it is capable of application to non-bank financial institutions.

In June 1999, the Committee issued a proposal for a new capital adequacy framework to replace the 1988 Accord, and this has been refined in the intervening years, culminating in the release of the New Capital Framework on 26 June 2004. The new Framework consists of three pillars: minimum capital requirements, which seek to develop and expand on the standardized rules set forth in the 1988 Accord; supervisory review of an institution's capital adequacy and internal assessment process; and effective use of disclosure as a lever to strengthen market discipline and encourage safe and sound banking practices. The Committee believes that, taken together, these three elements are the essential pillars of an effective capital framework. The new Framework is designed to improve the way regulatory capital requirements reflect underlying risks and to better address the financial innovation that has occurred in recent years, as shown, for example, by asset securitization structures. The changes aim at rewarding the improvements in risk measurement and control that have occurred and providing incentives for such improvements to continue.

The publication of the Framework in June 2004 represents the culmination of nearly six years of challenging work. During those years, the Basel Committee consulted extensively with banks and industry groups in an attempt to develop significantly more risk-sensitive capital requirements that are conceptually sound. At the same time, the Committee considered the characteristics and needs of markets and supervisory systems in numerous countries. To achieve its aims, the Committee undertook a careful review of the existing rules and of the recent advances attained in the industry.

It consulted widely and publicly with industry representatives, supervisory agencies, central banks, and outside observers.

Following the June 2004 release, which focused primarily on the banking book, the Committee turned its attention to the trading book. In close cooperation with the International Organization of Securities Commissions (IOSCO), the international body of securities supervisors who monitor the activities of securities firms and investment houses, the Committee published in July 2005 a consensus document governing the treatment of banks' trading books under the new Framework. For ease of reference, this new text was integrated with the June 2004 text in a document released in June 2006.

With the release of the Basel II text, national authorities in the G10 countries are now working to adopt the Basel II text through domestic rule-making and approval processes. The Commission of the European Union, for example, issued a proposed Directive on 14 July 2004. This Directive was finalized in July 2005.

Consistent implementation of the new Framework across borders through enhanced supervisory cooperation will become a critical and challenging task in the years ahead. To encourage collaboration and shared approaches, the Committee's Accord Implementation Group (AIG) serves as a forum on implementation matters. The AIG discusses issues of mutual concern with supervisors outside the Committee's membership through its contacts with regional associations as well as with the Core Principles Liaison Group (a working group that includes representatives of 16 non-member countries plus the IMF and World Bank). One challenge that supervisors worldwide will face increasingly under Basel II is the need to approve the use of certain approaches to risk measurement in multiple jurisdictions. While this is not a new concept for the supervisory community – the Market Risk Amendment of 1996 involved a similar requirement – Basel II may extend the scope of such approvals and demand an even greater degree of cooperation between home and host supervisors in the future. A consultative paper on information-sharing was issued for comment in November 2005, followed by a final version in June 2006.

In addition to work on the Concordat and capital standards, particular supervisory questions which the Committee has addressed and which have resulted in published papers include the supervision of banks' foreign exchange positions, the management of banks' international lending (i.e. country risk), the management of banks' off-balance-sheet exposures, customer due diligence, the supervision of large exposures, risk management guidelines for derivatives, sound practices for loan accounting and disclosure, corporate governance and a range of papers on credit risk management and electronic banking. Documents issued within the past year address, among other things, enhancing corporate governance, sound credit risk assessment and valuation for loans and guidance on the use of the fair value option. However, most of the Committee's effort continues to focus on the various aspects pertaining to the revision of the Capital Accord. In view of the complexity of many of these issues, the technical work is mostly undertaken in sub-committees composed of experts on each topic.

The Committee has been working closely with securities and insurance supervisors to study the challenges presented by the development of diversified financial conglomerates. Initially this cooperation was through an informal Tripartite group of supervisors from each of the three sectors. This group was succeeded in 1996 by the Joint Forum on Financial Conglomerates, constituted under the aegis of the Basel Committee, IOSCO and the International Association of Insurance Supervisors (IAIS). The Joint Forum is mandated to elaborate ways to facilitate the exchange of information between supervisors and to enhance supervisory coordination, and to develop principles toward the more effective supervision of financial conglomerates. In addition, the Committee, together with IOSCO, has issued ten joint reports since 1995 dealing with the management, reporting and disclosure of the derivatives activities of banks and securities firms.

The Committee has also undertaken work on a number of technical banking and accounting issues in conjunction with outside bodies. These include the International Accounting Standards Committee, the International Auditing Practices Committee of the International Federation of Accountants and the International Chamber of Commerce. This work has resulted in papers on interbank confirmation procedures, on relationships between bank supervisors and external auditors and on uniform rules for foreign exchange contracts. In addition, contacts have been developed with the European Commission and the European Banking Federation.

In order to enable a wider group of countries to be associated with the work being pursued in Basel, the Committee has always encouraged contacts and cooperation between its members and other banking supervisory authorities. It has circulated to supervisors throughout the world published and unpublished papers, as well as more general information about its work. In many cases, supervisory authorities in non-G10 countries have seen fit publicly to associate themselves with the Committee's initiatives. Contacts have been further strengthened by biennial International Conferences of Banking Supervisors. Thirteen such conferences have been held to date, the first in London in 1979. The most recent conference, hosted by the Comision Nacional Bancaria y de Valores, took place in Merida, Mexico in October 2006.

The Basel Committee maintains close relations with a number of fellow bank supervisory groupings. These include the Offshore Group of Banking Supervisors, with members from the principal offshore banking centers; and supervisory groups from the Americas, the Caribbean, from the Arab States, from the SEANZA countries of the Indian sub-continent, South-East Asia and Australasia, from central and eastern European countries, from the African continent and from Central Asia and Transcaucasia. The Committee assists these groups in a variety of ways, by providing suitable documentation, participating as appropriate in the meetings, offering limited Secretariat assistance and hosting meetings between the principals to coordinate future work.

The principles agreed by the Basel Committee have been widely disseminated through these international conferences and supervisory groupings. A large number of countries outside the Group of Ten have given their support to the fundamental objective of ensuring that no international banking activity should escape supervision. As a result there now remain only a very few territories around the world where banking companies are licensed and allowed to operate without serious efforts to accompany a license with effective supervision and cooperation with other supervisory authorities. Moreover, the Committee has always worked to raise the level of supervisors' consciousness of their mutual interdependence where the international activities of banks within their jurisdictions are concerned. The development of close personal contacts between supervisors in different countries has greatly helped in the handling and resolution of problems affecting individual banks as they have arisen. This is an important, though necessarily unpublicized, element in the Committee's regular work.

The wider role of the Committee in promoting sound supervisory standards worldwide has intensified. The Communiqué issued by the G7 Heads of Government following the Lyon Summit in June 1996 called for the Committee to participate in efforts to improve supervisory standards in the emerging markets. As a result, and in close collaboration with many non-G10 supervisory authorities, the Committee in 1997 developed a set of Core Principles for Effective Banking Supervision, which provided a comprehensive blueprint for an effective supervisory system. A number of steps have been taken to encourage countries to implement the "Core Principles", including the establishment of a Liaison group comprised of both G10 and non-G10 countries. As a first step to full implementation, an assessment of the current situation of a country's compliance with the Core Principles should take place. To facilitate implementation and assessment, the Basel Committee in October 1999 developed the Core Principles Methodology. Over the past year, the Committee has been reviewing the Core Principles and the Methodology in close collaboration with the assessors and with non-G10 supervisors. Revised versions of the two papers were issued in October 2006.

The Committee's Secretariat is provided by the Bank for International Settlements in Basel, where nearly all the Committee's meetings take place. The Secretariat is mainly staffed by professional supervisors on temporary secondment from member institutions. In addition to undertaking the secretarial work for the Basel Committee and its sub-committees, it stands ready to give advice to supervisory authorities in all countries. The Secretariat ensures that non-G10 supervisory authorities are kept informed of the work of the Committee. In this connection, it prepares a biennial report on international developments in banking supervision.

Until recently, the Basel Committee had orchestrated an active training programme on banking supervisory issues. Since 1987, the Secretariat had also organized annual supervisory seminars at the BIS for promising young bank supervisors, attended by persons from about thirty-five countries worldwide. In addition, the Secretariat conducted several training courses annually at regional locations and was regularly invited to lecture at training courses organized by the regional groups themselves or other official organizations. In 1999 the Bank for International Settlements, in a joint initiative with the Basel Committee, set up the Financial Stability Institute to take over and develop a multi-level educational programme. The Committee's Secretariat remains heavily involved in efforts to assist bank supervisors from around the world in strengthening their surveillance methods by means of an intensive FSI programme of conferences, seminars and workshops.

Institutions represented on the Basel Committee on Banking Supervision

Belgium:	National Bank of Belgium Banking, Finance and Insurance Commission
Canada:	Bank of Canada Office of the Superintendent of Financial Institutions
France:	Banking Commission, Bank of France
Germany:	Deutsche Bundesbank German Financial Supervisory Authority (BAFin)
Italy:	Bank of Italy
Japan:	Bank of Japan Financial Services Agency
Luxembourg:	Surveillance Commission for the Financial Sector
Netherlands:	The Netherlands Bank
Spain	Bank of Spain
Sweden:	Sveriges Riksbank Finansinspecktionen
Switzerland:	Swiss National Bank Swiss Federal Banking Commission
United Kingdom:	Bank of England Financial Services Authority
United States:	Board of Governors of the Federal Reserve System Federal Reserve Bank of New York Office of the Comptroller of the Currency Federal Deposit Insurance Corporation Office of Thrift Supervision

Chairman:	Mr Nout Wellink, President, Netherlands Bank

Secretariat:	Bank for International Settlements

Main framework

Basel I, that is, the 1988 Basel Accord, primarily focused on credit risk. Assets of banks in this framework were classified and grouped in five categories according to credit risk, carrying risk weights of zero (for example home country sovereign debt), ten, twenty, fifty, and up to one hundred percent (this category has, as an example, most corporate debt). Banks with international presence are required to hold capital equal to 8 % of the risk-weighted assets.

Since 1988, this framework has been progressively introduced in member countries of G-10, currently comprising 13 countries, namely, Belgium, Canada, France, Germany, Italy, Japan, Luxemburg, Netherlands, Spain, Sweden, Switzerland, United Kingdom and the United States of America.[2]

Most other countries, currently numbering over 100, have also adopted, at least in name, the principles prescribed under Basel I. The efficiency with which they are enforced varies, however, even within nations of the Group of Ten.

Basel II framework:

Basel II aims to build on a solid foundation of prudent capital regulation, supervision, and market discipline, and to enhance further risk management and financial stability. As such, the Committee encourages each national supervisor to consider carefully the benefits of the new Framework in the context of its own domestic banking system and in developing a timetable and approach to implementation. Given resource and other constraints, these plans may extend beyond the Committee's implementation dates. That said, supervisors should consider implementing key elements of the supervisory review and market discipline components of the new Framework even if the Basel II minimum capital requirements are not fully implemented by the implementation date.

[2] http://www.bis.org/publ/bcbsca.htm

National supervisors should also ensure that banks that do not implement Basel II are subject to prudent capital regulation and sound accounting and provisioning policies.[3]

Distinct Characteristics of Basel II:

Some distinct characteristics of Basel II are noteworthy:

- It aligns capital of banks with their basic risk profiles,
- It is elaborate and far superior in terms of its coverage and details,
- It has the ability to exploit effectively new frontiers of risk management and gives impetus to the development of sound risk management systems, which in turn are expected to promote efficiency and more prudent allocation of resources.
- It is perceived to be the harbinger of the future disposition of bank supervision and the evolutionary path on which the banking industry would tread, and
- Finally, it is designed to promote financial stability by making the risk management systems more robust and responsive to tackle the complexities arising out of a host of new risks.

Why Basel II:

The Basel I had a number of flaws. For instance, it provided "one size fit all" approach and did not differentiate between assets having less risk and assets having higher risk. There was no capital allocation against operational risk as well as no consideration was given to other risks such as concentration risk, liquidity risk etc. The new accord has risk management embedded in it; so it will be a driving force for bringing improvement in risk management capabilities of banks. Basel II provides incentive to banks having good risk management and punishes those that are not managing their risk profile appropriately by requiring higher capital[4].

The Basel Committee published the text of the new capital framework in June 2003. This marked the culmination of nearly six years of difficult work for supervisors and for banks. Why did the

[3] http://www.basel-ii-risk.com: Basel II information and chatroom

[4] http://www.accountancy.com.pk/newsgen.asp?newsid=1514

committee took pains to revise the existing capital rules? After all, the 1988 Basel Accord was a tremendous success in many ways.

There were several factors that led to conclude that a new approach was necessary. The 1988 Accord established the first internationally accepted definition and measure of bank capital. It was adopted in over 100 countries. As a result, it became acknowledged as one of the benchmark measures of a bank's financial health.

While the simplicity of the 1988 Accord was an asset in promoting its acceptance, today its simplicity is quickly becoming a liability for some bankers and supervisors alike. Over the past 16 years, the methodologies for measuring and managing risk have evolved in ways that the architects of the 1988 Accord could not have anticipated.[5]

[6]For one, advances in technology, telecommunications, and markets have changed the way that banks collect, measure, and manage their risks. Having gained experience in quantifying exposures to market risk, leading banks today are quantifying and using increasingly reliable estimates of the credit risk associated with particular borrowers. Evolution in markets has furthermore provided banks with more tools for managing and transferring credit risk, such as through securitized transactions and credit derivatives. Likewise, many banks seek to quantify in a more reliable manner their exposures to operational risk, or the risk of losses stemming from failures in internal processes or systems or from damage caused by an external disruption.

As risk management becomes more sophisticated, the simple and static rules of the 1988 Accord are becoming less relevant. Leading banks increasingly view the old rules as a burden, constraining their abilities to administer their businesses relative to the best information and practices available today. Supervisors, for our part, have less confidence in the 1988 Accord's measures of risk for banks that engage in the most sophisticated forms of risk taking and risk mitigation.

By the late 1990s, it became clear to banks and supervisors that there was a need for a new capital framework. But the Basel Committee sought more than just a reworking of the minimum

[5] http://www.baselalert.com Basel news and resources

[6] Daníelsson, Jón. "The Emperor Has No Clothes: Limits to Risk Modelling." Journal of Banking and Finance, 2002, 26, pp. 1273-96.

requirements. The committee wanted instead to create incentives for the industry to enhance the state of the art in risk management. The essence behind this deliberation was mere fact that improving risk management helps to increase the stability of the global financial system - a goal that would benefit not just banks, but more broadly businesses and consumers.

Structure of Basel II Framework:

[7]To foster greater financial stability, the Basel Committee blended several policy approaches to replace the existing capital framework. Basel II consists of three mutually reinforcing pillars.[8]

First Pillar

The First pillar is about minimum capital requirement. This part of the Accord outlines the level of capital required by the bank against credit, market and operational risk based on the risk profile of the organization. The primary objective is neither to raise nor lower on average regulatory capital for banks however the capital requirements for a specific bank may increase or decrease depending upon its own risk profile. A bank's capital ratio will be calculated by dividing the total capital by the sum of risk-weighted assets of credit risk, market risk and operational risk.

Credit Risk

The calculation of capital requirement against market risk remains unchanged, however the methodologies provided for capital against credit risk are more elaborate and risk sensitive. The Accord gives a hierarchy of 3 alternative approaches for the purpose that vary in terms of sophistication, and adoption of a particular approach depends on the risk measurement capabilities and robustness of the systems in place in a bank. A Standardized Approach will be available for less

[7] http://www.math.ethz.ch/~delbaen/ftp/preprints/CoherentMF.pdf Coherent measures of risk.

[8] Dr. Shamshad Akhtar,Govonor SBP Address Delievered on Global Banking: Paradigm Shift at Mumbai India on 26 Sep, 2006.

complex banks for the credit risk calculation. This approach builds upon the 1988 Accord (risk weights determined by category of borrower) with risk weights based on external credit ratings (with un-rated credits assigned to the 100% risk bucket). Banks with more advanced risk management capabilities, which can meet rigorous supervisory standards, can make use of an Internal Ratings-Based ("IRB") approach. Under this approach the risk weights are derived from risk components: Probability of default (PD), Loss Given Default (LGD), Exposure at Default (EAD) and Maturity. The calculation of the risk components is based on internal ratings assigned by the bank to individual exposures. The IRB approach differs substantially from the standardized approach in that banks' internal assessments of key risk drivers serve as primary inputs to the capital calculation. However, the IRB approach does not allow banks themselves to determine all of the elements needed to calculate their own capital requirements. Instead, the risk weights and thus capital charges are determined through the combination of quantitative inputs provided by banks and formulas specified by the Committee. The IRB approach is further categorized into two variants: a foundation version and an advanced version. Under the foundation approach, banks will develop their probability of default ("PD") for each rating grade while loss given default ("LGD") and exposure at default ("EAD") estimates will be based on supervisory values with a standardized treatment of credit risk mitigation. Under the IRB advanced approach, banks can use their own LGD and EAD estimates and will have greater flexibility in the treatment of collateral guarantees and credit derivatives. The formulas, or risk weight functions, translate these inputs into a specific capital requirement.

Operational Risk

The New Accord introduces for the first time a capital charge for operational risk. The framework presents three methods for calculating operational risk capital charges in a continuum of increasing complexity and risk sensitivity. These methods are the Basic Indicator approach (a fixed percentage of gross income amount), Standardized approach (sum of a certain percentage of bank's income in each business line) and Internal Measurement approach (Statistical measure of banks operational loss based on its historical loss data)

Pillar – 2 Supervisory Review Process:

This pillar is based on the principle that capital adequacy is not just a compliance matter and it is equally important that the bank should have a robust risk management framework. The pillar 2 has two key elements

1. A firm specific internal assessment and management of capital adequacy.
2. Supervisory review of this internal capital assessment and the robustness of risk management processes, systems and controls.

Four key concepts of supervisory review have been identified through which supervisors can ensure that each bank has sound internal processes in place to assess the adequacy of its capital and set targets for capital that are commensurate with the bank's specific risk profile and control environment:

Principle 1: Banks should have a process for assessing their overall capital in relation to their risk profile and a strategy for maintaining their capital levels.

Principle 2: Supervisors should review and evaluate banks' internal capital assessments and strategies as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the results of this process.

Principle 3: Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.

Principle 4: Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained.

An important element of pillar II is that the risks against which there is no capital charge in pillar I (interest rate risk in banking book, concentration risk, liquidity risk etc) shall be covered under pillar II and the supervisors are required to assess whether these risk are being actively managed and the bank is holding adequate capital against these risks.

[9]To facilitate supervisors' monitoring of interest rate risk exposures banks must provide the results of internal measurement systems expressed in terms of economic value relative to capital using a standardized interest rate shock. If supervisors determine that a bank is not holding capital commensurate with the level of interest rate risk they must require the bank to reduce its risk or hold a specific additional amount of capital or both. Supervisors will pay particular attention to sufficiency of capital for those banks whose economic value declines by more than 20% of the sum of Tier 1 and Tier 2 capital as a result of a standardized interest rate shock (200 basis points).

Pillar 3 Market Discipline:

Bolstering market discipline through enhanced disclosure is a fundamental part of the New Accord. Effective disclosure is essential to ensure that market participants can better understand banks' risk profiles and the adequacy of their capital. The New Accord provides detailed guidance on the disclosure required for each of the methodology given in pillar I.

Basel II -- Superior and All-Encompassing Architecture

It is widely recognized that Basel II is a major breakthrough in theoretical and practical world of banking industry and a dynamic framework which will be able to adapt to ongoing innovation and change. Some of the main features of Basel II are noteworthy:

First, while the new Accord maintains the level of capital adequacy requirements at 8% (Tier 2 capital is restricted to 100% of Tier 1 capital) consistent with Basel I, it has shifted emphasis from regulatory to economic capital framework, while giving recognition to new risk mitigation techniques (default protection etc.) and clarifying new trading book capital questions. Careful evaluation of these elements suggests that Basel II is not ideologically about raising as per se capital requirement but focuses on efficient and effective capital allocation. Appropriate and sharpened risk articulation and assessment and safeguards would result in reduced capital requirements. Conversely, ill-conceived financial structures with risky counterparties will attract punitive capital requirements. Basel II in some senses *"serves as more intelligent solvency capital redeployment."*

[9] http://www.bis.org/publ/bcbs107.htm Basel II: International Convergence of Capital Measurement and Capital Standards: a Revised Framework (BCBS)

Second, the new Accord has depth and breadth in its architecture and it blends and integrates well, with an element of mathematical rigor, all key prudential and supervision norms, however the rules based approach allows substantive national discretion which has its pros and cons. Basel II at the very basic level consists of the Standardized Approach (SA) which recognizes and defines various asset buckets and assigns them risk weights in accordance with the type and nature of corporate issue and other transactions and delegating its qualitative assessment to external raters. The matrix of risk buckets and weights is considered to have added excessive complexity for less sophisticated banks. The linkage and delegation of quality assessment to external ratings, while understandable, lends excessive confidence on the objectivity and soundness of rating agencies which, in at least developing countries has only thus far rated a small proportion of corporate and issues. Notwithstanding, the Pillar 1 offers a choice to resort to either a Standardized Approach (SA) which has pre-specified weights or to turn to Internal Rating Based (IRB) approach which involves a foundation and advanced IRB option. These approaches are differentiated on the basis of

(i) the available in house risk assessment expertise,
(ii) the size and product mix of the bank, and
(iii) the overall financial sophistication.

There is considerable national discretion for regulators to decide, within the parameters defined under Basel II, on risk weights for different types of finances, treatment of collateral and risk mitigation, etc. The core pillar is bedecked by two other pillars; and all three pillars are interlinked and intertwined and mutually reinforce each other. Pillar 2(Supervisory Review) underscores need for strengthening the financial institutions' internal capital assessment processes to capture risks which remained uncovered under Pillar 1 and thus set aside capital in line with the banks' risk profile and control environment. The supervisory review process validates the bank's internal assessments by ensuring that the whole array of risks has been taken care of. Pillar 3 (Market Discipline) complements the other two pillars by requiring disclosures and transparency in financial reporting to promote market discipline.

Third, the Accord encourages banks to recognize all types of risk and take appropriate steps to mitigate these risks, while providing for adequate capital. Besides the credit risk, the Accord for the first time recognizes the operational risk, however, the degree of guidance and complexity in measurement provided within the framework for these risks varies. The **Credit Risk** (the risk of default by the counterparty) is dealt with most comprehensively in the Basel II in line with legacy of the first Accord as well as the banks traditional edge and competence in credit risk assessments. The inclusion of **Operational Risk,** a fundamental improvement over Basel I, captures risks associated with bank's internal control processes and systems and corporate governance policies and practices. Operational risk calculation explicitly requires capital for *"the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events"* risk. This definition includes legal risk, but excludes strategic and reputation risk. Three approaches underlie measurement of capital against operational risk:

(i) Basic Indicator Approach (BIA) –capital for operational risk should be equal to the average over the previous three years of a fixed percentage (denoted alpha=15%) of positive annual gross income,

(ii) Standardized Approach capital charge for each business line is calculated by multiplying gross income by a factor (denoted beta)assigned to that business line. Beta (ranging between 12-18%) serves as a proxy for the industry-wide relationship between the operational risk loss experience for a given business line and the aggregate level of gross income for that business line; and

(iii) Advanced Measurement Approach-- the regulatory capital requirement will equal the risk measure generated by the bank's internal operational risk measurement system using the quantitative and qualitative criteria for the AMA.

Overall the approaches for operational risk assessment are not as nuanced as for credit risk, however the AMA approach does allow for more fine tuning. Once again the banks with better risk assessment would opt for the advance approaches.

Market Discipline pillar underscores need for transparency and disclosure of data and technicalities. The evaluation of banks' risks and its systems and capital adequacy by the market will help ensure integrity and validation of other pillars. For this pillar to work, it needs to be supported by proper accounting rules and more elaborate disclosure of bank's strategies and approaches adopted, risk profile and capital strategy through economic and credit cycle, information of the stress tests, and PD/LGD data.

Fourth, within the pillars, the Accord offers a range of options and incentivizes banks to move from vanilla SA which assigns high risk weights and capital standards to adopting IRB and within it further having the option to choose either the Foundation versus Advanced IRB. These options have clear trade offs but most importantly, IRB offers greater capital relief relative to SA. Nevertheless, IRB systems will only be feasible if they are supported by databases and history on credit losses, rating models and risk management systems etc. and their soundness and integrity has been validated by supervisors. Banks operating in less developed countries, having limited in-house expertise, and small to medium size are in general opting for SA. The advantage of SA is its relative ease of implementation by even small and mid-sized banks. The main problem, however, is that it would usually result in much higher capital requirements as compared to IRB. There is much less fine tuning of the risk weights, and banks have to rely on external rating agencies. The banks adopting this approach would thus be at a disadvantage against their competitors. Jurisdictions that will stick to the SA for too long may find that their domestic banks are losing ground to the foreign banks operating globally who are more likely to adopt IRB.

Fifth, the IRB approach is being preferred by large global banks, which already competitively price credit risk. The key parameters under IRB approach are PD (probability of Default), LGD (loss given default), M (Maturity) and EAD (Exposure At default). Under the FIRB, the banks calculate PD of their portfolio, while the other parameters i.e. LGD and EAD are prescribed by the regulator. Minimum PD is 0.03% for banks and corporates; no floor has been prescribed for sovereigns. The LGD for senior exposure is 45% and the subordinated exposure attracts a lower recovery of 75%. These rates should be reexamined by the regulators taking into account the ground realities of their respective jurisdictions[10]. The Advanced IRB provides discretion to banks, and as such there is an incentive to move too quickly to AIRB without adequate preparation. The balancing act has to be performed by the regulator, on one hand it has to promote the efficiency of banking capital and pursue more fine tuned risk assessment, and on the other it has to ensure that banks have sufficient resources and expertise to undertake this complex task. The AIRB approach has very **high sensitivity to the changes in LGD and M given the differences in PDs**. In a paper by ING Bank[11], it is shown that at higher LGD levels e.g. 75% there is a particularly strong impact on the

[10] ING bank, *Estimating the Basel Effect, July 2006.*

[11] Ibid.

risk weights of bonds of lower rated issuers. On a similar note the variations in maturity M, have greater impact on low rated borrowers as compared to high rated borrowers. It implies that in case of a BBB- rated borrower, the risk weights will be highest for subordinated loans (LGD 75%) having long maturity (e.g. 5 years). At the same time for short term secured loans (i.e. with low LGD) the difference in risk weights will not vary a great deal with the quality of borrowers. The use of AIRB would thus produce winners and losers in the banking sector. The low rated borrowers and users of long term funds would face much higher costs of funds, whereas public sector and other high quality borrowers would gain. Regulators have to ensure that instead of marginalizing the low rated borrowers any further, policies are in place to enhance the overall credit profile of the business sector in the country.

The Accord clearly discourages certain exposures as banks earn more pejorative capital treatment for equity style risks which were under-capitalized in Basel I. An ING study has observed that a number of European banking groups have unwound their industrial and non-strategic financial equity holdings as a part of preparation for Basel II.

Basel II – as a Business Case:

Given the objectives and scope of Basel II and its architecture, the Mckinsey study (2004) highlights that there is a **"Business Case for Basel II"**[12] as the accord could impact profits and generate gains from reduced capital charges which of course need to be netted from funding costs. For some banks, given the risk sensitive nature of Basel II, the regulatory capital could be substantially reduced by up to 50 percent in segments such as residential mortgages, which would translate in to savings on funding costs. However, such savings would be subject to conditions: such as requirement that regulatory capital should be higher than economic capital[13] and presence of regulations such as leverage ratios which may prevent banks from reducing their regulatory capital significantly. The

[12] Kevin S.Buehler, Vijay D Silva & Gunnnar Pritsch, " The Business Case for Basel II, The Mckinsey Quaterly 2004, Number 1.

[13] The amount of risk capital, assessed on a realistic basis, which a bank requires to cover the risks that it is running or collecting. Typically this is calculated by determining the amount of capital that the firm needs to ensure that its realistic balance sheet stays solvent, over a certain time period, with a pre-specified probability. Firms and financial services regulators should then aim to hold risk capital of an amount equal at least to economic capital.

McKinsey's research identifies four important Basel II-related risk management efficiencies which could together raise pretax earnings by 3 to 6 percent. These include:

(i) Reduced charge-offs through better default-prediction and collection processes

(ii) Improved pricing discipline on loans and risk selection through risk-based pricing to and reduced risk from new business opportunities.

(iii) Reduced operating expenses by streamlining loans and underwriting processes

(iv) Reduced operational loss expenses through the use of proper mitigation techniques.

Substantial savings can also be achieved through freeing up of regulatory capital, depending on the risk characteristics of loan portfolio. For example, a bank carrying substantial mortgage loan portfolio would free up regulatory capital when it moves to Basel II. In case of operational risk, for big banks that must adhere to Basel II, moving to a proposed advanced measurement standard might generate savings from 20 to 25 percent of the capital requirements for operational risk if regulatory capital exceeds economic capital. Realizing these savings, however, would require substantial investment. For large, diversified global banks, the cost of implementation is estimated at $100 million but can be as high as $250 million, and the process could well take up to three years. For diversified regional banks, the cost is estimated at $25 million to $50 million[14]. It is important to remember that many banks would incur much of this cost even without Basel II, since they must upgrade their risk-management capabilities to keep pace with changing markets and remain competitive.

Criticisms:

There are many criticisms that are made of Basel II. These include that the more sophisticated risk measures unfairly advantage the larger banks that are able to implement them and, from the same perspective, that the developing countries generally also do not have these banks and that Basel II

[14] Kevin S. Buehler, Vijay D'Silva, and Gunnar Pritsch, "*The Business Case for Basel II."* The McKinsey Quarterly 2004, Number 1.

will disadvantage the economically marginalized by restricting their access to credit or by making it more expensive.

The first of these is a valid point, but it is difficult to see how this can be overcome. More risk sensitive risk measures were required for the larger, more sophisticated banks and, while the less sophisticated measures are simpler to calculate, due to their lower risk sensitivity they need to be more conservative.

The second criticism has elements of truth; the better credit risks will be advantaged as banks move towards true pricing for risk. Experience with these systems in the United States and the United Kingdom, however, shows that the improved risk sensitivity means that banks are more willing to lend to higher risk borrowers, just with higher prices. Borrowers previously 'locked out' of the banking system have a chance to establish a good credit history.

A more serious criticism is that the operation of Basel II will lead to a more pronounced business cycle. This criticism arises because the credit models used for pillar 1 compliance typically use a one year time horizon. This would mean that, during a downturn in the business cycle, banks would need to reduce lending as their models forecast increased losses, increasing the magnitude of the downturn. Regulators should be aware of this risk and can be expected to include it in their assessment of the bank models used.

General Economic Scenario of Pakistan

Pakistan has managed an appreciable economic turnaround during the last 5 years. From a tenuous position in 1999, the economy has transformed itself from one burdened by low economic growth, chronic fiscal deficits, increasing external debt into one characterized by vibrant growth, increased fiscal space and a stable external debt position. Real economic growth has averaged 7.6% in the last 3 years while exports have doubled in the last 6 years. Real investment, a lag for the initial part of the business cycle, is now starting to gain momentum. It grew by 9.26% in FY05 & 10.33% in FY06.The estimates of the population below the poverty line has fallen from 32% to 25%.

The most important drivers of the current year's economic growth are:

- Impetus to high growth in FY06 was principally from the performance of the services sector, as both the key

- commodity producing sectors, agriculture and industry saw growth fall well below the annual targets.

- Per capita income, increased from US$500 in 2001-2002 to US$847 in 2005-2006 owing to increase in real GDP,

- stable exchange rate and relatively lower increase in population compared to the previous years.

- Global economic growth reached to 5%

- Massive credit flow of around PKR 345 billion to the private sector.

- Increase in total investment by 20% of GDP owing to rise in FDI.

Despite unexpectedly weak harvests of some key crops (cotton, sugarcane and wheat), the impact of the October 2005 earthquake, a tight monetary policy and an unprecedented rise in oil prices, real GDP growth remained strong at 6.6 percent during FY06.

The decline in the FY06 production of sugarcane and cotton, together with the modest growth in wheat was the principal reason for the 3.6 percent decline in the value addition by major crops, in sharp contrast to the 17.8 percent growth in the preceding year.

The provisional number for FY06 suggests that YoY industrial growth stood at 5.9 percent, substantially lower than the 11.4 percent YoY growth recorded during the preceding year. However, the industrial growth estimates based on full year data is expected to be a little higher than the provisional number. In particular, 9.0 percent growth in large-scale manufacturing (LSM) could reach 10.7 percent during FY06, but this could still remain below the annual target (for the first time during the last four years) and also lower than the 15.6 percent growth recorded in FY05.

The services sector performed remarkably well, witnessing 8.8 percent growth during FY06, surpassing its annual target for the year as well as the 8.0 percent growth registered in FY05. This robust growth was mainly contributed by wholesale & retail trade, transport & communication and finance & insurance sub-sectors which, although registered slower growth during FY06, was nonetheless well above the target for both sectors. On the other hand, transport, storage & communication sub-sector has witnessed acceleration, with growth rising to 7.2 percent during FY06 against 3.6 percent in FY05, mainly on the back of improved performance of road transport and communication, which was supplemented by double-digit growth in railway transport. Moreover, accelerated growth in community, social & personal services was witnessed and was probably a reflection of the increased social service activities in Pakistan's Northern areas in the aftermath of the October 2005 earthquake.

While Pakistan's economy suffered due to rising commodity prices, inflationary pressures eased somewhat in the domestic economy as headline Consumer Price Index (CPI) witnessed a deceleration from a peak of 9.3 percent (average annual inflation) in FY05 to 7.9 percent during

FY06, mainly due to monetary tightening to soften demand pressures as well as administrative measures to counter supply shocks. FY06 deceleration is solely a result of ease in food inflation. Given high levels of CPI inflation and core inflation, resilience in non-food inflation, which is still at high levels, acceleration in broader measures of inflation and a lower inflation target of 6.5 percent for the FY07, SBP has continued with its tight monetary policy in the period ahead. In this background, the current SBP forecast suggests that CPI inflation is likely to be in the range of 6.5–7.5 percent during FY07, a little above the annual target.

This is the fifth successive year that the Debt to GDP ratio has improved. More significantly, this is the first time in more than two decades that this ratio has fallen below 60 percent. In fact, "The Fiscal Responsibility and Debt Limitation Act, 2005" envisaged a Debt to GDP ratio at 60 percent by FY13.

Pakistan once again accessed the global bond market to raise funding through the issuance of the Euro Bonds in FY06. Pakistan not only successfully generated inflows of US$800 million from this issuance, but also established a long-term sovereign benchmark that would help local corporate to access global markets. The FY06 issuance consists of 10-year bonds of US$500 million, and US$300 million in 30-year bonds. Also, in FY06 the private sector registered fresh loans of US$522 million primarily on account of the long-term loans to the communication sector and to Pakistan International Airline (PIA) for the purchase of aircrafts.

The External Account of Pakistan continued to remain under pressure during FY06 due to increase in aggregate demand, coupled with the rise in international oil and commodity prices. The country witnessed the highest ever current account deficit of US$5.0 billion during FY06 as compared to deficit of US$1.5 billion in the previous year. This rise in the current account deficit was mainly contributed by huge trade deficit of US$8.4 billion as compared to the US$4.5 billion in the preceding year. The expansion in the trade deficit was primarily due to a significant 31.3 percent YoY growth in imports that outpaced the 14 percent growth in exports.

The persistently rising international oil prices and the broad-based increase in the aggregate demand led to a sharp rise in import bill to US$24.9 billion during FY06. The exceptional import growth and accompanying rise in services account payments (principally for freight payments for imports), contributed to a sharp widening of the country's current account deficit, from a relatively manageable 1.4 percent of GDP in FY05 to a more threatening 4 percent of the GDP in FY06.

However, the strong growth in remittances from Pakistanis and expatriates living abroad and gains from the lower net interest payment on external debt and liabilities partially offset the impact of the large trade gap.

The large current account deficit was however, easily financed through the improvement in the financial account. Specifically, financial account surplus increased substantially, from a meager US$0.45 billion in FY05, to a sizeable US$5.9 billion in FY06. The improvement in the financial account was quite broad based, contributed by higher FDI of US$3.5 billion (including privatization proceeds of US$1.54 billion); rise in portfolio investment on account of floatation of Euro bonds of US$800 million and other receipts. In addition to this, higher receipts of long-term concessional loan from ADB and World Bank, and net inflow of supplier's credit also helped in swelling the financial account surplus. Hence, despite the unprecedented YoY deterioration in trade account in FY06, the overall balance recorded a surplus of US$1.33 billion during the period.

The surplus in the overall external balance, that led to a net US$520 million increase in the country's forex reserves (US$13.137 billion by June 2006) during FY06 also helps explain, in part, the relative stability of the rupee during the year. The rupee traded within a narrow band of 74 paisa for most part of FY06, depreciating only 0.84 percent during the period, to close at Rs. 60.12 / US$. However, due to comparatively higher domestic inflation in relation to trading partner countries and relative stability of the domestic currency, the rupee appreciated in real terms by around 1.9 percent.

National savings rose sharply by 16.5 percent during FY06 compared to the 7.5 percent growth in the preceding year, nonetheless this increase is lower than the rise in nominal GDP. As a result, the National Savings to GDP ratio dropped slightly (by 0.1 percentage) to 16.4 percent during FY06, the lowest level since FY01.The total investment to GDP ratio rose to 20.0 percent during FY06 from 18.1 percent in the preceding year and an average of 17.1 percent in the last five years. Importantly, this is the highest level of the investment to GDP ratio in over a decade. The rise in the ratio is mainly attributed to improved confidence of local as well as foreign investors on the back of a good showing of the economy and a robust 22.3 percent growth in credit to private sector despite increasing interest rates.

State Bank of Pakistan & Its Response Towards Basel II

On the basis of foregoing and keeping in view the global response towards Basel II, SBP has, in principle, decided to adopt Basel II in Pakistan. A proposed outline of a Roadmap for the implementation of Basel II in Pakistan is by State Bank of Pakistan is here under. While preparing this Roadmap, the State Bank has conducted a survey to assess the existing capacity of the banks and their financial position to meet additional capital requirement. The plans of other countries for adoption of Basel II have also been reviewed. Efforts have been made to draw a realistic timeline so as to give banks sufficient time to prepare themselves for meeting the requirement of Basel II.

Timeline for Basel II Implementation

The capital allocation under Basel II is more risk sensitive and comprehensive and its implementation would result in improved risk management at banks. Nevertheless the implementation of New Accord is by no means an easy task especially in countries where risk management in banks is at its infancy stage. The proposed implementation plan has been prepared on the basis of;

a) Feed back obtained from the banks

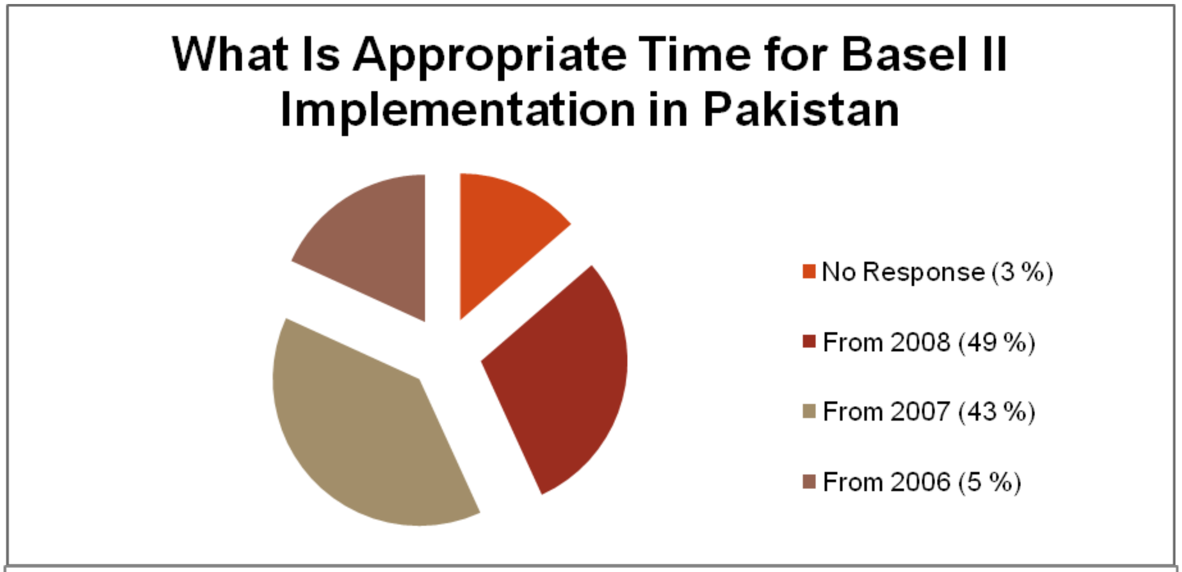
b) Assessment of financial impact derived from quantitative Impact Study carried out by Banking Supervision Department

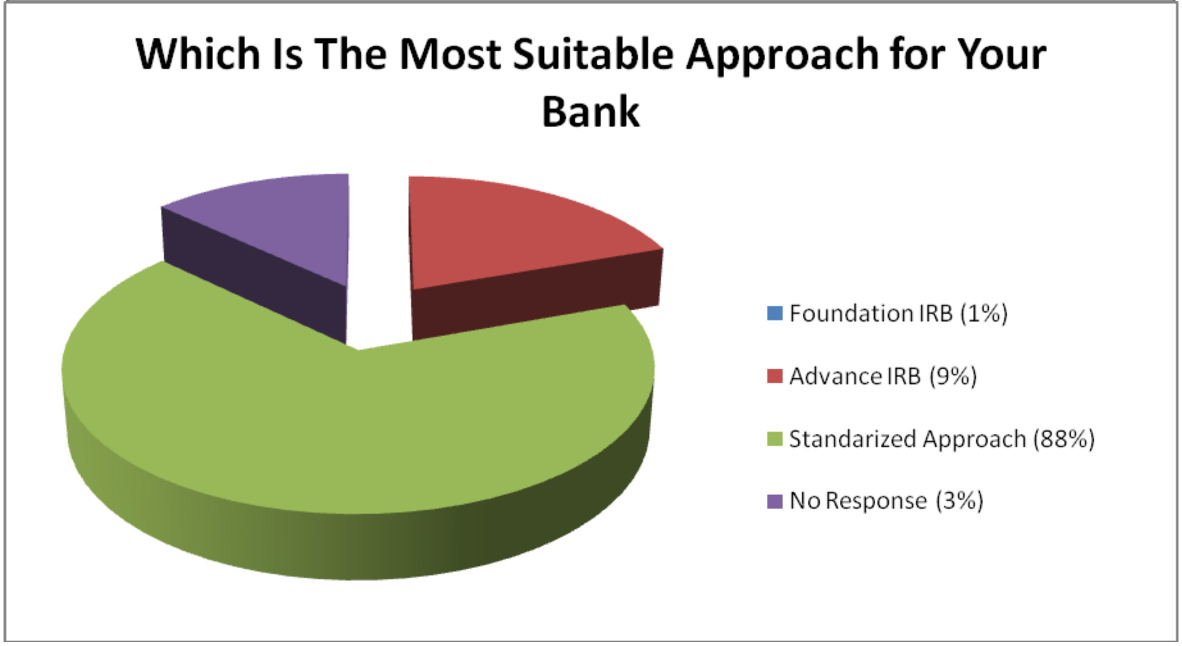
c) Implementation of Basel II across various countries, especially in developing economies.

Before discussing the proposed roadmap it would be important to discuss the results of above- mentioned studies.

a) Feedback from Banks:

In Order to obtain feedback from all banks regarding Basel II implementation and to assess the level of their preparedness, a survey on Basel II was conducted in July 2004. All banks/DFIs were invited to give their views by responding to a detailed questionnaire. The most important question asked was when should the Basel II be implemented in Pakistan. Figure 1 shows the responses to that question. It was quite encouraging to note that not a single bank/DFI disagreed with the implementation of Basel II. 13 banks representing 49% of total banking assets recommended to implement Basel II from 2008 whereas 17 respondents representing 43% of banking assets recommended 2007 as Basel II implementation date. Regarding which specific approach for Minimum Capital Requirement (Pillar-I) be offered, most of the banks were of the view that standardized Approach would be suitable initially. One of the prerequisite for Basel II implementation is that the institution should have a robust risk management setup capable of effectively managing all major risks that the institution is exposed to. Most of the banks claimed that they have in place risk management setup at least for major risk categories. The banks that claimed to have partial risk management setup lacked operational risk management function (figure 3). It has, however, been observed that most of the banks have not given any consideration to Basel II in their current operating plan, nevertheless all banks have shown their intention to include it in their next operating plan.

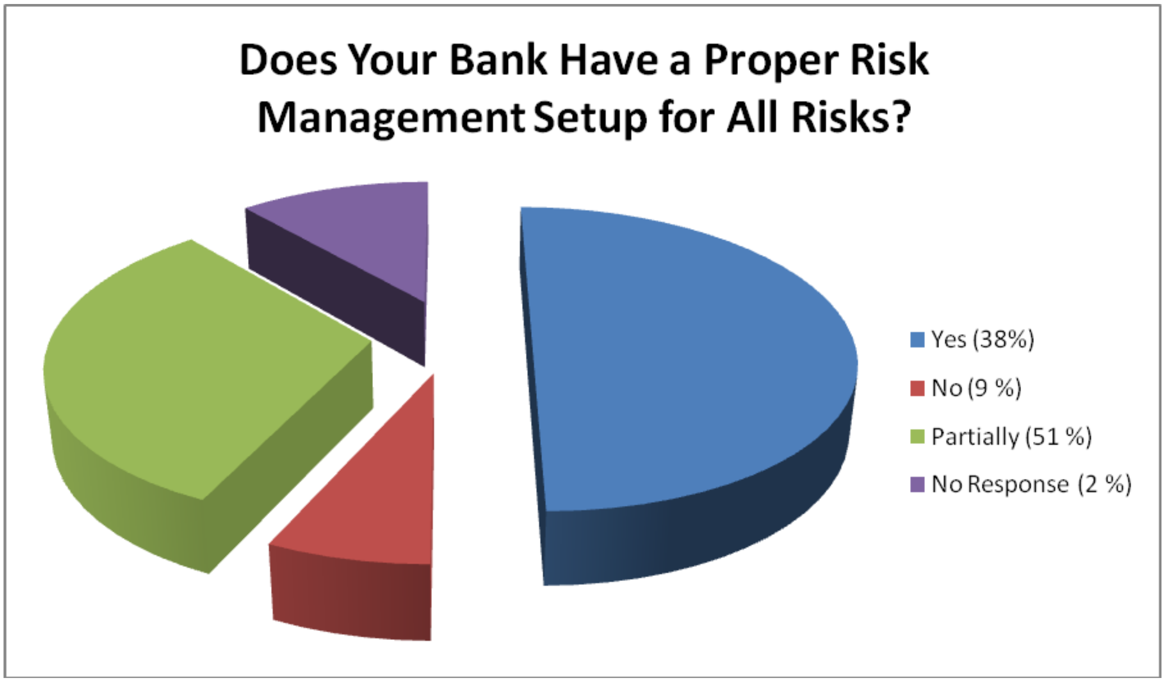




b) Quantitative Impact Study.

In addition to the above-mentioned survey, the State bank also conducted a quantitative impact study (QIS) of Basel II (Standardized Approach) based on data as of 31.12.2003. The study was based on the assumption that there would not be any major variation in the capital requirement of banks against their credit risk as in absence of external ratings most of the loans will fall under the category of unrated claims and attract 100% risk weight.

The capital requirement under Basel II of individual banks was therefore calculated by adding capital charge for market risk and operational risk. It was observed that there would not be any significant increase in required capital and most of the banks will be able to meet capital requirement under Basel II rules. It may be worth mentioning here that the study did not take into account the impact of increased Paid-up Capital requirement of Rs 2 billion in compliance of which some of the banks have to increase their paid-up capital.



Transition towards Basel II

Keeping in view the results of survey, QIS and the global implementation of Basel II, the transition towards Basel II in Pakistan would be as follows:

- Banks would be required to adopt Basel II as under:
  1. Standardized Approach for credit risk and Basic Indicator /Standardized Approach for operational risk from 1st January 2008.
  2. Internal Ratings Based Approach from 1st January 2010.

(Banks interested in adopting Internal Ratings Based Approach for capital requirement against credit risk before 1st January 2010 may approach SBP for the purpose. Their request will be considered on case-to-case basis)

- To ensure smooth transition to Basel II there would be a parallel run of one and half year for Standardized Approach and two years for IRB Approach starting from 1st July 2006 and 1st January 2008 respectively.
- Banks' internal plans for Basel II implementation shall be reviewed and continuously monitored by the State Bank during the pre-implementation period as well as during parallel run.

Actions Required by SBP

On the part of SBP the implementation of Basel II require following activities to be accomplished.

General

1) Ensuring the establishment of Basel II Implementation units at each bank.

2) Communicating the Basel II implementation plan to Banks.

3) Drafting and issuance of circular/instructions laying down the parameters for adopting Basel II

Pillar 1-Minimum Capital Requirement

Standardized Approach

1) Preparing eligibility criteria and rules for recognition of External Credit Assessment Institutions (ECAIs)

2) Recognition of ECAIs and mapping of the ratings with the appropriate risk weight.

Internal Ratings Based Approach.

3) Devising requirements relating to Internal rating system design and minimum conditions of eligibility for use of these ratings for IRB approach

4) Validation of banks' systems with respect to Basel II implementation.

Pillar 2 - Supervisory Review

1. Capacity Building at SBP as well as in banks.

2. Deciding on the range of actions and standardizing them for different scenarios in case a bank is not meeting in whole or in part different aspects of capital adequacy as emerged during the supervisory review process.

3. Carrying out a specific exercise to review as to whether banks have a process

for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels

Pillar III- Market Discipline

1. Reviewing existing disclosure formats and comparing them with the disclosure requirements under Basel II.
2. Preparing / drafting new formats for disclosure by banks in order to meet the minimum disclosure requirements under Basel II.

Allied Bank Limited:

Established in Lahore in 1942 before independence, Allied Bank Limited is one of the largest banks in Pakistan with more than 700 branches located in over 300 cities and towns. The Bank has the largest data communication network with all its branches offering real-time online banking. The Bank offers a full range of retail, commercial and corporate banking services with a focus on service delivery through technology.

Risk Management in Allied Bank Limited:

Risk Management is a continuous process which addresses all significant risks to which the bank is exposed. The process begins with the formulation of business objectives and strategies and encompasses the identification, assessment and measurement, monitoring and control of specific banking risks. The process is completed by the monitoring of current business objectives and strategies.

Categories of Risk

At Allied Bank risk management processes distinguishes among four kinds of specific banking risks: credit risk, market risk, liquidity risk and operational risk.

Credit Risk This risk is defined as the possibility of loss due to unexpected default or a deterioration of credit worthiness of a business partner. Credit Risk includes Country Risk i.e., the risks that counterparty is unable to meet its foreign currency obligations as a result of adverse economic conditions or actions taken by governments in the relevant country.

Market Risk The risk of loss generated by adverse changes in the price of assets or contracts currently held by the bank (this risk is also known as price risk).

Liquidity Risk The risk that the bank is unable to meet its payment obligations when they fall due and to replace funds when they are withdrawn; the consequences of which may be the failure to meet obligations to repay depositors and fulfill commitments to lend.

Operational Risk The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

Risk Responsibilities in Allied Bank

- The Board is accountable for the management of risk. This is discharged by defining the scope of risk management activities within the Risk Management Group, distributing responsibilities at Board level for their management and determining the manner in which risk authorities are set.
- The Board Risk Management Committee (BRMC) determines standards and policies for risk measurement and management. These standards and policies are proposed by Risk Management Committee (RMC), who is also accountable for providing independent assurance that risk is being managed, measured and controlled in conformity with RMG policies and standards.
- The President and Group Chiefs are accountable for the management of risk collectively through their membership of risk committees: Risk Management Committee and Asset and Liability Committee (ALCO).
- Independent supervision of risk management activities is provided by Audit Committee.
- Day-to-day operational responsibility for implementing the Bank's risk management policies and guidelines is delegated to the appropriate business units.

Risk Management Group Organization

Risk management functions have been segregated by business specialization, i.e., Credit Risk, Credit Administration, Risk Architecture, Portfolio Management Operational Risk and Market Risk. All these functions are operating in tandem to improve and maintain the health of the lending portfolio.

Credit Risk

Credit risk, the potential default of one or more debtors, is the largest source of risk for the bank. The bank is exposed to credit risk through its lending, trading and capital market activities. The bank's credit risk function is divided into Corporate and Financial Institutions Risk and Commercial and Retail Risk. The functions operate within an integrated framework of credit policies, guidelines and processes. The foundation of the bank's credit management framework is based on a systematic approval matrices introduced in 2005, which was followed with credit risk assessment methodology introduced in 2006 through a new Credit Application Package.

The bank manages 3 principal sources of credit risk:

i) Sovereign credit risk on its public sector advances

ii) Non-sovereign credit risk on its private sector advances

iii) Counterparty credit risk on interbank limits

Sovereign Credit Risk

When the bank lends to public sector borrowers, it prefers obtaining a full sovereign guarantee or the equivalent from the Government of Pakistan (GOP). However, certain public sector enterprises have a well defined cash flow stream and appropriate business model, based on which the lending is secured through collaterals other than GOP guarantee.

Non-Sovereign Credit Risk

When the bank lends to private sector borrowers it does not benefit from sovereign guarantees or the equivalent. Consequently, each borrower's credit worthiness is analyzed on the newly introduced Credit Application Package that incorporates a formalized and structured approach for credit analysis and directs the focus of evaluation towards a balanced assessment of credit risk with identification of proper mitigants. These risks include Industry Risk, Business Risk, Financial Risk, Security Risk and Account Performance Risk. Financial analysis is further strengthened through use of separate financial spreadsheet templates that have been designed for manufacturing/ trading concerns, financial institutions and insurance companies.

Counter Party Credit Risk on Interbank Limits

In the normal course of its business, the bank's Treasury utilizes products such as REPO and call lending to meet the needs of the borrowers and manage its exposure to fluctuations in market, interest and currency rates and to temporarily invest its liquidity prior to disbursement. All of these financial instruments involve, to varying degrees, the risk that the counter party in the transaction may be unable to meet its obligation to the bank. Reflecting a preference for minimizing exposure to counterparty credit risk, the bank maintains eligibility criteria that link the exposure limits to counterparty credit ratings by external rating agencies. For example, the minimum rating for counterparties to be eligible for a banking relationship with the bank is BBB.

Country Risk

The bank has in place a Country Risk Management Policy which has been approved by the Board. This policy focuses on international exposure undertaken by the bank. The bank utilizes country risk rating assessment reports published by Dun & Bradstreet Limited (an international credit rating agency) which use political, commercial, macroeconomic and external risk factors in assigning a country risk rating. The country risk limits used by the bank are linked to the Dun & Bradstreet ratings and FID is responsible for monitoring of country exposure limits.

Credit Administration

Credit Administration is involved in minimizing losses that could arise due to security and documentation deficiencies. The Credit Administration Division constantly monitors the security and documentation risks inherent in the existing credit portfolio through six regional credit administration departments located all over the country.

Portfolio Management

To ensure a prudent distribution of credit portfolio, the bank manages its lending activities within a framework of Borrower, Group and Sector exposure limits and risk profile benchmarks.

Portfolio Risk Measurement Models

The bank has developed internal risk rating models to assign credit risk ratings to its Corporate and Institutional borrowers. These models are based on expert judgment, comprising of both quantitative and qualitative factors. The ratings are assigned at Portfolio Management Level and are given due weightage while extending credit to these asset classes.

Stress Testing

The bank is also conducting stress testing of its existing portfolio, which includes all assets, i.e., advances as well as investments. This exercise is conducted on a semi-annual basis in line with regulatory requirements. This testing is conducted through assigning shocks to all assets of the bank and assessing its resulting affect on capital adequacy.

Early Warning System

In order to ensure that monitoring of the regular lending portfolio focuses on problem recognition, an early warning system in the form of a 'Watch-List' category has being instituted to cover the gap between Regular and Substandard categories. Identification of an account on the said 'Watch-List' influences the lending branch to carry out an assessment of the borrower's ability to rectify the identified problem / weakness within a reasonable time-frame, consider tighter structuring of facilities, confirm that there are no critical deficiencies in the existing security position and, if possible, arrange for strengthening of the same through obtaining additional collateral. It should however, be noted that the Watch-List category of accounts is part of the Bank's Regular portfolio and does not require any provisioning. In some cases, an account may even be downgraded directly from a Regular to Sub-Standard or worse on subjective basis based on the severity of the trigger involved.

Management of Non Performing Loans

The Bank has a Special Asset Management Group (SAM), which is responsible for management of non performing loans. SAM undertakes restructuring / rescheduling of problem loans, as well as litigation both civil and criminal for collection of debt. For the non-performing loan portfolio, the bank makes a specific provision based on an assessment of the credit impairment of each loan. At the end of 2006, the average specific provisioning rate was 73.08% of the non-performing loan portfolio.

Portfolio Diversification

During the year 2006 the banking sector advances in Pakistan grew by 18% whereas growth in the bank's advances was 27%. The growth pattern indicates that the bank has outpaced overall credit growth of banking sector, while concomitantly maintaining healthy Advances to Deposit Ratio and Capital Adequacy Ratio.

While expanding the advances portfolio, efficient portfolio diversification has been a key consideration. The diversification takes into account the volatility of various sectors by placing concentration limits on lending to these sectors thereby ensuring a diversified advances portfolio. Composition of the bank's advance's portfolio is significantly diversified. Textile, Cement, Financial Institutions, Agriculture and Transport / Communication are major contributors to the advances portfolio. These sectors are considered to be the biggest contributors towards country's GDP as well.

December 31,2006.						
	Advances (Gross)		Deposits		Contingencies & Commitments	
	Rupees in '000	Percent	Rupees in '000	Percent	Rupees in '000	Percent
Financial institutions		4.87 %			12,275,623	17.25%
Individuals	7,387,387	3.54%		1.79%	909,368	1.28%
Textile	5,367,775	23.88%		35.65%	2,050,040	2.88%
Sugar	36,230,311	3.38%	3,680,768	1.97%	979,968	1.38%
Cement/Clay/Ceramics	5,125,441	7.99%	73,450,765	0.46%	111,385	2.88%
Transport & Communication	12,121,245	6.42%	4,067,376	0.77%	20,450	1.38%
Whole Sale & Retail Trade	9,735,245	3.80%	941,733	1.78%	3,278,690	0.16%
Agriculture	5,771,268	8.66%	1,578,921	5.81%	184,524	0.03%
Real Estate Agents	13,138,154	7.20%	3,677,515	4.67%	-	4.61%
Food Manufacturing	10,919,991	3.67%	11,973,448	3.88%	-	0.26%

Iron Steel	**5,562,228**	**2.34%**	**9,617,896**	**1.49%**	**465,192**	**-**
Oil & Gas etc.	**3,551,261**	**4.62%**	**8,001,616**	**5.94%**	**2,980,189**	**-**
Electric Generation	**7,005,959**	**3.61%**	**3,064,610**	**3.83%**	**8,547,092**	**0.65%**
Others	**5,471,261**	**16.03%**	**12,241,712**	**4.58%**	**39,375,340**	**4.19%**
	24,317,892		**7,880,756**	**27.38%**		
			9,437,962			
			56,416,246			
	151,705,418	**100.00%**	**206,031,324**	**100%**	**71,177,861**	**100%**

Market Risk

The bank is exposed to Foreign Exchange Risk, Interest Rate Risk and Equity position Risk. Market Risk Function has been partially set up with current responsibility of performing basic market risk measurement, monitoring and control functions. However, to give it a formal structure, the bank expects to appoint a consultant within the first quarter of 2007, for assistance in establishment of Market Risk Management Framework.

Risk Pertaining to the Trading Book

A trading book consists of positions in financial instruments held either with trading intent or in order to hedge other elements of the trading book. To be eligible for trading book, financial instruments must be held with the intent of trading and free of any restrictive covenants on their tradability. In addition, positions need to be frequently and accurately valued and the portfolio should be actively managed. The bank's trading book includes equity securities classified as 'Held for Trading'. These positions are actively managed by treasury as part of their capital market activities. Since trading book constitutes capital market equities therefore, they are mainly exposed to equity price risk.

Risk Pertaining to Banking Book

All the investments excluding trading book are considered as part of banking book. Banking book includes:

i) Available for sale securities

ii) Held to maturity securities

iii) Other strategic investments

Treasury investments parked in the banking book include:

i) Government securities

ii) Capital market investments

iii) Strategic investments

iv) Investments in bonds, debentures, etc.

Due to the diversified nature of investments in banking book, it is subject to interest rate and equity price risk.

Interest Rate Risk – Banking Book

Government securities (PIB & T-Bills) and other money market investments are subject to interest rate risk. To capture the risk associated with these securities extensive modeling is being done with respect to duration analysis. Stress testing and scenario models are also in place to capture the sensitivity of the portfolio to adverse movement in interest rates. For prudent risk management all money market investments are marked to market to assess changes in the market value of investments due to interest rate movements.

Equity Position Risk – Banking Book

The bank's portfolio of equity securities categorized under 'Available for Sale' and 'Strategic Investments' are parked in the banking book. These investments expose the bank to equity price risk.

Stress Testing

The bank also conducts Stress Testing of the bank's investment portfolio to ascertain the impact of various adverse scenarios on the capital adequacy and sustainability of the bank. The exercise assumes various stress conditions, with respect to Market Risk (Rise or Fall in Interest Rates, leading to interest rate risk), Equity Price Risk resulting from Stock Market movements, FX Rate Risk leading from adverse movements in exchange rates and Liquidity Risk (ability to meet short-term obligations if there is a run on deposits). This is in line with the Central Bank's regulatory requirements.

Duration GAP Analysis

A Duration Gap Analysis is also conducted to ascertain the duration gap between the bank's assets and liabilities, to ascertain the effect of interest rate shifts on the market value of equity.

Market Risk Capital Charge

The bank uses standardized measurement method for calculation of market risk capital charge. The results are as under:

Rupees in '000	Risk Weighted Exposure	Capital Charge
General Market Risk – Equity Exposure	237,113	18,969
Specific Market Risk – Equity Exposures	237,113	18,969
Foreign Exchange Risk	296,009	23,681
Total	**770,235**	**61,619**

Foreign Exchange Risk

Foreign Exchange Risk is the risk of loss arising from fluctuations of exchange rates. At Allied Banks FX Risk is first controlled through substantially matched funding policy. On the mismatched exposures, we utilize appropriate derivative instruments such as Forwards and Swaps.

The majority of net foreign currency exposure is in US Dollars. The bank is carefully monitoring the net foreign currency exposure and the effect of exchange rate fluctuations by conducting sensitivity analysis and stress testing, as well as utilizing the currency forwards and swaps to hedge the related exposure.

Equity Position Risk

The Board with the recommendations of ALCO approves exposure limits applicable to investments in Trading Book. Equity securities are perpetual assets and are classified under either Held for Trading Portfolio or Available for Sale Portfolio.

Concentration Risk

ALCO is responsible for making investment decisions in the capital market and setting limits that are a component of the risk management framework. Portfolio, Sector and Scrip wise limits are as signed by the ALCO to guard against concentration risk and these limits are reviewed and revised periodically. Treasury ensures compliance of concentration limits set by ALCO. Limit monitoring is done on a daily basis. Limit breaches if any are promptly reported to ALCO with proper reason and justification.

Price Risk

Trading and investing in equity securities give rise to price risk. ALCO and Treasury's Capital Market Unit both ensure that through prudent trading strategy and use of equity futures, the equity price risk is mitigated, albeit to a certain extent.

Liquidity Risk

Liquidity risk is the risk that the bank is unable to fund its current obligations and operations in the most cost efficient manner. Asset Liability Committee (ALCO) is the forum to oversee liquidity management. The overall bank's principle is that the ALCO has the responsibility for ensuring that bank's policy for liquidity management is adhered to on a continual basis.

Other than customer's deposits, the bank's funding source is the inter-bank money market. Change in the government monetary policy and market expectations of interest rate are all important factors that can adversely affect our key funding source. Efficient and accurate planning plays a critical role in liquidity management. The banks MIS provides information on expected cash inflows/out flows which allow the bank to take timely decisions based on the future requirements.

Comprehensive gap analysis, stress testing and scenario analysis is done on periodic basis to capture any adverse effect of market movements on liquidity position. Based on the results produced by analytical models, ALCO devise the liquidity management strategy to maintain sufficient liquidity to deal with any related catastrophe.

Operational Risk

The bank, like all financial institutions, is exposed to many types of operational risks, including the potential losses arising from internal activities or external events caused by breakdowns in information, communication, physical safeguards, business continuity, supervision, transaction processing, settlement systems and procedures and the execution of legal, fiduciary and agency responsibilities.

The bank maintains a system of internal controls designed to keep operational risk at appropriate levels, in view of the bank's financial strength and the characteristics of the activities and market in which it operates. These internal controls are periodically updated to conform to industry best practice.

In 2006, the bank has initiated the process of implementing internationally accepted Internal Control-Integrated Framework published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), with a view to consolidate and enhance the existing internal control processes.

Risk Management Framework at Allied Bank and Progress So Far

The Bank manages risk through a framework of sound risk principles which includes an optimum organizational structure, risk assessment and monitoring process that are closely aligned with the banks long term strategy. The Risk Management Group (RMG) is mandated to implement this framework as a function independent of commercial lines of business. In addition, a Risk Management Committee comprising members of senior management discusses significant risk issues that arise, as well as recommends risk policies prepared by RMG to the Board Risk Management

Committee for approval. This ensures that risk oversight and governance occur at the highest levels of management. During 2006, RMG took several steps to further strengthen the Risk Management Framework, for example:

- Initiated the Basel II implementation project by engaging PricewaterhouseCoopers (PwC) in the later half of 2006 to conduct a Gap Analysis with respect to Credit, Market and Operational Risks. The Gap Analysis Reports and preparation of the Basel II implementation plan by PwC is expected during the second quarter of 2007.This is an important step in the alignment of regulatory and economic capital requirements.
- Implemented a new Credit Application Package, which incorporates a formalized and structured approach for credit analysis, and directs the focus of evaluation towards a balanced assessment of credit risk with identification of proper mitigants. These risks include industry risk, business risk, financial risk, security risk and account performance risk.
- Strengthened financial analysis through launch of separate financial spreadsheet templates for manufacturing & trading concerns, banks, leasing and insurance companies. To make the risk estimation more accurate and forward looking, RMG on a pilot basis also developed in house Risk Rating Templates to rate the various asset classes. These rating templates are targeted for launch in 2007 after they have been tested with the assistance of an external consultant.
- Solicited proposals from various market risk consultants during the last quarter of 2006 to seek their assistance in establishment of a market risk management framework. A comparative evaluation is underway and a consultant will be appointed so that the Bank can efficiently manage liquidity and market risk.
- Evaluated various risk management software to meet the sophisticated data management and reporting requirements under Basel II. The Bank intends to procure appropriate software that would enable the Bank to meet the regulatory requirements as set out by the State Bank of Pakistan to achieve compliance with Basel II.

The Bank devotes considerable resources in managing the risks to which it is exposed. The momentum attained thus far will be continued in the future through significant investments in technology and training.

Conclusion

Basel II is recognized to have "revolutionized" the risk assessment, management and mitigation systems and offered financial industry innovative and sophisticated approaches to weighing these risks. Concurrently, Basel II has catalyzed new supervisory approaches which have encouraged regulators to start thinking of aligning their national regulations along the Basel II Accord. Most banks have now defined a road map and timetable for adoption of Basel II by industry and to position themselves to conduct the required due diligence for supervision of more advanced approaches to regulatory framework. However, the progress on Basel II implementation varies among the banks reflecting mainly differences in their financial and technological readiness. The speed of adoption could be explained by a succinct analogy that one can travel a certain distance by taking the high-speed autobahn while in Europe, however, the same distance would require a lot more time in developing countries context given the quality of the roads.

Appendix

Basel II promises cheaper banking

by Richard Barfield

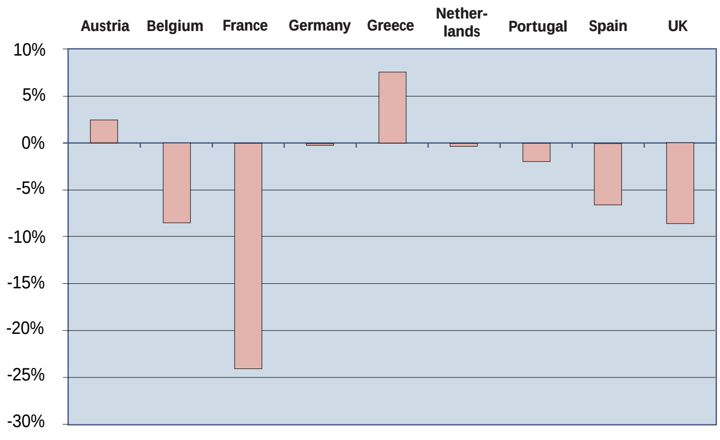
The diversity and complexity of capital markets are addressed in new banking regulations set to be phased in after 2007

A recent study by PricewaterhouseCoopers for the European Commission estimates that the introduction of new rules for banks could release some 5 per cent of bank capital – about €100billion – in the European Union. Known as Basel II, after the Swiss border town where international bank supervisors meet, this package brings regulation more into line with modern financial services. Regulators and rating agencies have made it clear that they want to see gradual change, however, so any capital reductions will be phased in after 2007.

Under the current Basel I rules, for every €100 of lending, banks need to back it with a minimum of €8 capital, although banks tend to hold more than the regulatory minimum – nearer to €11 for every €100 of lending. The new regulations (Capital Requirements Directive or 'CAR') are much more risk-sensitive than Basel I, which dates back to 1988. This means that better quality loans may require less capital while worse quality loans more capital than under Basel I. This could have implications for pricing. The final formulation, after extensive global consultation, was published in June. The CAR (which is in most important respects the same as Basel II) means that the regulations will have the force of law in the EU.

The driving force for Basel II – which focuses specifically on establishing how much capital a bank requires, given its risk profile -- has been the need to recognise the improvements most financial institutions have made in risk management and risk-based capital allocation in recent years. This has been enabled by leaps in computing power and data management capabilities. Technology and better risk management have also been accompanied by growing complexity in financial products and capital markets. While in his Berkshire Hathaway annual report Warren Buffet has described one such product – derivatives -- as "financial weapons of mass destruction", others prefer to think of improved risk management as ABS braking systems in cars – the car is safer while encouraging some drivers to take more risk, but without crashing.

Figure 1: Expected change in capital requirements by country



Source: QIS3 country reports, PricewaterhouseCoopers analysis

No data was available for Ireland, Italy and Luxembourg. Data for Sweden was insufficient for the analysis. Data for Denmark and Finland is not displayed for reasons of confidentiality but capital requirements in both countries are likely to decrease.

Capital reductions – national differences

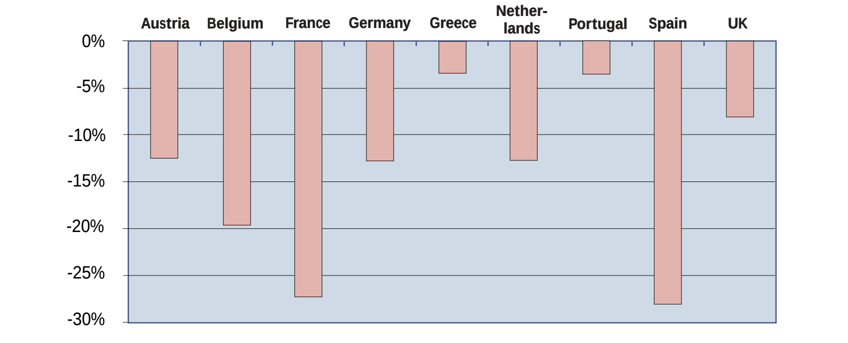
The potential capital reduction varies from country to country, market to market, and institution to institution. Figure 1 shows the range of over-all reduction across some of the major EU countries. The figures are based on the banks' own figures derived from their third quantitative impact assessments for Basel II which were collated by each national regulator in 2003. Even in those countries with small reductions or over-all increases, there will be reductions for individual banks, types of lending and customers. Degrees of change also vary.

Within Basel II, banks can opt for one of three approaches to measuring risk-based capital: Standardised, Foundation or Advanced. The Foundation and Advanced approaches rely on internal ratings data collected by the banks themselves.

The Standardised approach allows banks to use standard estimates of risk capital by type of exposure as agreed by the Basel Committee. The Advanced approach requires sophisticated models using detailed loss histories at an individual loan level for at least seven years. The greater detail of the Advanced approach means that, everything else being equal, an advanced institution will require less regulatory capital than a Standardised institution.

The Advanced approach requires significant investment in systems, data and management time, however. A large international bank will probably spend between

Figure 2: Likely reduction in regulatory capital for credit risk for corporate lending



Source: QIS3 country reports, PricewaterhouseCoopers analysis

€100m and €150m on implementation over a five-year period.

These changes relate to 'Pillar 1' capital which covers market, credit and operational risk. There are other risks for which capital has to be allocated but these are more difficult to quantify. The banks and the regulators deal with these in 'Pillar 2'. For the purposes of PwC's analysis, it was assumed that, everything else being equal, the estimated Pillar 1 reductions would lead to a proportionate reduction in over-all capital.

The expected over-all reduction in Pillar 1 capital is driven by reductions in capital for credit risk (the main risk for most banks) with a compensating increase in capital for operational risk (systems failures, major fraud, etc). The credit risk change outweighs the operational risk component under the internal ratings based approaches.

Corporate customers

For corporate lending which accounts for about 20 per cent of lending, the expected reductions are between 5 and 15 per cent in most countries (see Figure 2).

Some corporate customers are already asking their banks how much Basel II will reduce pricing. They are probably in for a long haul. The PwC study had access to most countries' Quantitative Impact Study. These were prepared by banks all over the world for their regulators and submitted to the Basel Committee late in 2002.

Although many banks may see capital reductions for credit risk regulatory capital for corporate lending, corporate banking markets are extremely competitive and margins are already thin. There are two main reasons for this. Firstly prices tend to be set by banks that already use risk-sensitive pricing models. Secondly many banks see corporate lending as a gateway relationship product to sell higher margin items such as structured products. But the benefits of any capital reductions are likely to be passed on to customers.

Although some banks already use risk-based pricing, Basel II is likely to bring further benefit to corporate customers. The simple reason is that the rather blunt instrument of Basel I is a regulatory constraint which has the effect of underpinning capital levels. As the underpinning level of capital drops, this should reduce over-all capital and improve returns which in turn could result in cheaper banking.

Small and medium sized enterprises (SMEs) are critical to the EU economy, accounting for 99 per cent of all firms and about two-thirds of employment. Capital supporting SME lending is expected to reduce, and the impact on the price of lending the sector is expected to be positive for customers. In addition, separate academic studies in Austria, Belgium, France, Germany, Italy and Spain also indicate that SMEs should gain from the changes.

Retail customers

The biggest over-all Pillar 1 reductions are likely in the capital to support retail lending, which accounts for about 25 per cent of bank lending in the EU.

Figure 2 indicates the relative impact by country. The proportion of banks using the Foundation and Advanced approaches has an important influence on the outcome. In some countries, smaller institutions are working to share the costs of implementing the necessary Foundation systems.

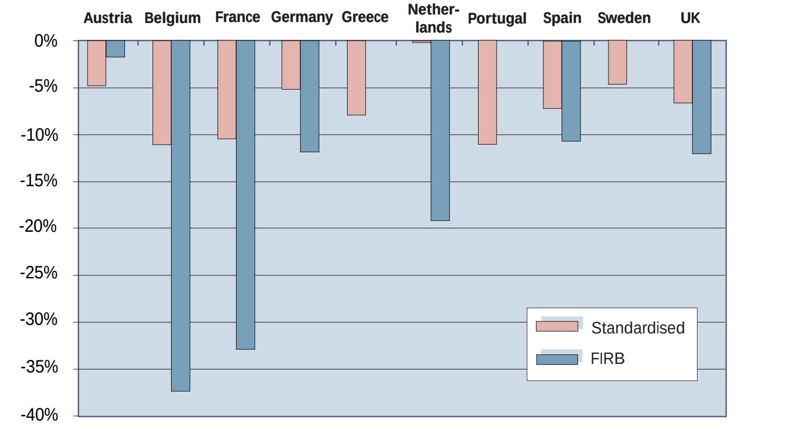
Retail lending generally has higher margins than, say, corporate lending and is often a key driver of bank profitability. A decrease in capital could either increase profitability further or be passed on to the customer via reduced pricing to defend or increase market share. The latter is likely to be true in mortgage markets, which are highly competitive in most EU countries. Within retail, residential mortgage lending is one of the major beneficiaries and is the main contributor to the banks' estimate of retail capital reduction.

Who will benefit?

The above discussion gives some broad views on how the benefits might be shared. But a key factor to consider in your specific markets will be the profitability of the banking sector (or sub-sector) and the degree of competitiveness. These differ widely across the EU.

To illustrate the differences, the diagram below shows how profitability varies (measured by comparing return on equity with cost of equity) with market concentration (measured by the share of banking assets of the top four banks in each country). The size of each circle is proportional to the size of

Figure 3: Impact on credit risk capital for SME lending



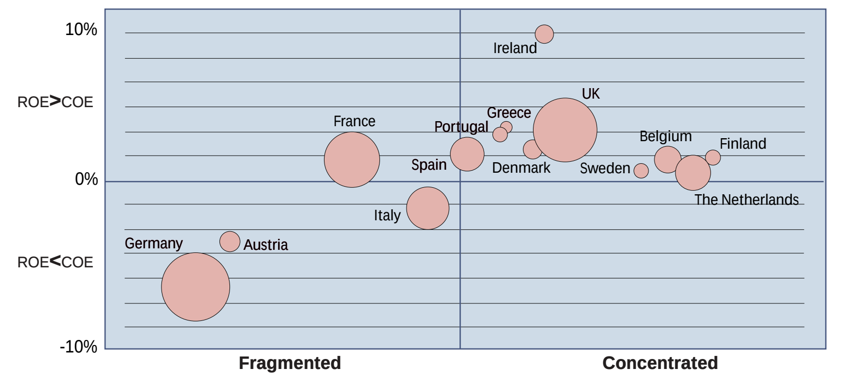
Source: QIS3 country reports, PricewaterhouseCoopers analysis banking assets. Concentration and competitiveness are not necessarily negatively correlated – as the competitiveness of the Dutch market attests – but the diversity across the EU is more than apparent.

In assessing the potential impact in a given country, PwC considered a broad set of factors, including market profitability, customer behaviour, industry structure, bank efficiency and market competitiveness. The study found impact likely in these areas:

- **Banks:** Finland, Greece and Portugal
- **Customers:** Austria, France, Germany, Italy and the UK
- **Either:** Belgium, Denmark, Ireland, Luxembourg, Netherlands, Spain and Sweden

The advantages will pass on to the wider economy, regardless of which stakeholders benefit.

Figure 4: European banking profitability and concentration



Source: Central banks and banking associations of individual countries, Bloomberg, PricewaterhouseCoopers analysis.

Macro impact

To assess the impact of the CAR on the EU economy, PricewaterhouseCoopers worked with the National Institute of Economic and Social Research

The Institute's detailed modelling country by country indicated that overall Basel is likely to have a small but positive effect on GDP, potentially leading to an increase of under 0.1 per cent for the EU.

An interesting insight from the National Institute's macroeconomic analysis is that the effect on the macro economy depends on to what extent the changes affect lending to businesses or lending to consumers. Any reduction in the cost of consumer lending directly affects demand, but has only a secondary effect on supply. If demand is increased, without any effect on supply, the result is to create inflationary pressure, which central banks will probably neutralise with an increase in interest rates. By contrast, a reduction in borrowing costs to producers will stimulate investment. The additional investment represents a short-run increase in demand, but also adds productive capacity so that there is a durable increase in supply.

Therefore the extent to which Basel impacts SME and corporate lending will influence the long-term impact on the economy as a whole. Perhaps the next time you are negotiating with your bank you can invoke the national interest to reduce yours.

Richard Barfield is Director of Valuation and Strategy PricewaterhouseCoopers LLP, London.

HOW BANKS SET PRICES

In simple terms, banks price loans to cover their costs and generate profit over the life of the loan. Capital is only one component of the loan pricing decision and its importance to the pricing decision will depend on the financial dynamics of the transaction in question. Several costs need to be covered, for example:

- Cost of funds (we assume that banks' credit ratings and thus their funding costs remain unchanged as these depend on many factors and not just capital levels);
- Cost of servicing the loan;
- Cost of advertising or origination (in the case of a new customer);
- Expected credit losses;
- Tax;
- Cost of capital to support the loan.

The bank will also take into account factors such as:

- Expected fee income;
- Income potential from cross sales, (e.g. corporate loans may be seen as loss-leader relationship products);
- Competitive strategy (e.g. is the bank pricing to grow market share or to optimise short-term returns?).

For the purposes of the EU study, PricewaterhouseCoopers assumed that the changes in capital requirements from Basel I to Basel II will lead to corresponding changes in capital assigned to lending. This is due to the fact that even if the bank is a sophisticated user of economic capital, regulatory capital will still be a constraint that must be considered.

Approaches to calculating capital to support a loan pricing decision vary from one institution to another. The main differences will be whether economic or regulatory capital is the key driver. Within both of these approaches, there is a wide range of options:

- In using economic capital the aim is to assess the marginal risk contribution of the loan. However:
  - The underlying assumptions that drive the economic capital calculations will vary.
  - Many aspects require judgement, for example diversification effects and operational risk. Some institutions will make allowances for diversification benefits, others will not. Even for those that do, there is no agreed common standard for calculating diversification benefits.
- In using regulatory capital some institutions will use the raw regulatory weight, others will add an allowance for the cushion that they carry. In both cases, the target return may vary depending on the institution's strategy.

Jaime Caruana: Basel II - emerging market perspectives

Keynote remarks by Mr Jaime Caruana, Governor of the Bank of Spain and Chairman of the Basel Committee on Banking Supervision, for a panel discussion on "Basel II - Emerging Market Perspectives", Bankers' Conference 2004, New Delhi, 11 November 2004.

*   *   *

Thank you, for your kind introduction and opening thoughts on the significance of the new capital framework in emerging market countries. I would like to thank as well the Indian Bankers Association and our host institution, Punjab National Bank, for inviting me to take part in your conference.

It is an honour to be asked to share some of my thoughts on Basel II and its implications for a country such as India. I must confess that it is a still greater privilege for me to hear your thoughts directly on this new standard and the role it may play in a large, rapidly growing dynamic economy. A discussion on India adds the perspective of a country whose banking sector has been undergoing an important period of transition. The scale of that transformation is evident in the global aspirations that Indian banking organisations are now pursuing, as the title of this conference suggests.

I would like to continue our discussion of Basel II first by discussing briefly why the Committee felt that the international capital standard needed to be revised and how Basel II addresses the Committee's goals for it. Then I would like to address some of the questions and issues about Basel II that banks and supervisors in emerging market countries have shared with me. After that, I look forward to hearing the thoughts of my fellow panelists and those of others on what Basel II might mean for the Indian banking sector.

Why Basel II is necessary: an overview of the new capital framework

Before we discuss how Basel II may affect banks in India, allow me to begin by addressing why the Basel Committee drafted Basel II. The Committee published the text of the new capital framework this past June. This marked the culmination of nearly six years of difficult work for supervisors and for banks. Why did we take such pains to revise the existing capital rules? After all, the 1988 Basel Accord was a tremendous success in many ways.

I think that several factors led us to conclude that a new approach was necessary. As you know, the 1988 Accord established the first internationally accepted definition and measure of bank capital. It was adopted in over 100 countries. As a result, it became acknowledged as one of the benchmark measures of a bank's financial health.

While the simplicity of the 1988 Accord was an asset in promoting its acceptance, today its simplicity is quickly becoming a liability for some bankers and supervisors alike. Over the past 16 years, the methodologies for measuring and managing risk have evolved in ways that the architects of the 1988 Accord could not have anticipated.

For one, advances in technology, telecommunications, and markets have changed the way that banks collect, measure, and manage their risks. Having gained experience in quantifying exposures to market risk, leading banks today are quantifying and using increasingly reliable estimates of the credit risk associated with particular borrowers. Evolution in markets has furthermore provided banks with more tools for managing and transferring credit risk, such as through securitisation transactions and credit derivatives. Likewise, many banks seek to quantify in a more reliable manner their exposures to operational risk, or the risk of losses stemming from failures in internal processes or systems or from damage caused by an external disruption.

As risk management becomes more sophisticated, the simple and static rules of the 1988 Accord are becoming less relevant. Leading banks increasingly view the old rules as a burden, constraining their abilities to administer their businesses relative to the best information and practices available today. Supervisors, for our part, have less confidence in the 1988 Accord's measures of risk for banks that engage in the most sophisticated forms of risk taking and risk mitigation.

By the late 1990s, it became clear to banks and supervisors that we needed a new capital framework. But the Basel Committee sought more than just a reworking of the minimum requirements. We wanted instead to create incentives for the industry to enhance the state of the art in risk management. We believe that improving risk management helps to increase the stability of the global financial system - a goal that would benefit not just banks, but more broadly businesses and consumers.

To foster greater financial stability, the Basel Committee blended several policy approaches to replace the existing capital framework. Basel II consists of three mutually reinforcing pillars.

The first pillar aligns the minimum capital requirements more closely to banks' actual underlying risks. Many banks will rely on external measures of those risks to determine their capital requirements. These might include drawing on credit ratings issued by external rating agencies or on supervisors' assessments of the degree of operational risk inherent in various businesses. More sophisticated institutions, in comparison, may qualify to rely partly on their own measures of those risks when determining their capital requirements, an innovation that will help to create economic incentives for banks to improve those measures.

The second pillar - supervisory review - allows supervisors to evaluate each bank's assessments of its own risks and to determine whether those assessments seem reasonable. Ultimately each bank's own management is responsible for assessing and responding prudently to all of the risks that a bank faces, including those risks that might not be captured entirely in the first pillar. The second pillar will therefore foster a dialogue between banks and their supervisors on the nature of the risks that banks face and the measures they take to control them, including holding aside sufficient levels of capital. That dialogue creates great implicit incentives for management to undertake careful evaluations of the bank's capital needs.

Finally, the third pillar, market discipline, recognises the power of marketplace participants to motivate prudent risk management. By enhancing transparency in banks' financial reporting, the third pillar provides counterparties, investors, and other participants with greater insight into a bank's risk profile; that increases their ability to distinguish and reward banks that are well managed, while penalising those that are not.

One might say that Basel II seeks an "efficient frontier" of policy objectives through the three pillars. Each pillar provides something that the other two cannot. Each is essential to achieving our overall objective of financial stability - an objective that would benefit all countries in all stages of development.

Of course, some of the advanced approaches offered in Basel II are intended for large and/or sophisticated banking organisations; this has sometimes led bankers and supervisors in particular regions of the world to ask me whether Basel II is relevant to their situations. So I'd like to turn now to address some of the questions that I have heard frequently from bankers and supervisors especially in emerging market countries.

Issues in emerging market countries

Is Basel II appropriate for emerging market countries generally?

Let me address the question that I just mentioned, namely whether Basel II is relevant to the banking system of an emerging market country.

Let me begin by emphasising that I cannot answer the question of when or how any country should adopt Basel II. Only national authorities can decide when to adopt Basel II. Members of the Basel Committee believe that it is beneficial for all countries to move in the direction of Basel II, but the timing for its ultimate adoption should be determined by each country's own circumstances, and not necessarily the timetable for Basel Committee members.

At the same time, I should note that many bankers and supervisors from emerging market countries, including India, were very active in sharing their views and suggestions with the Committee to help make the Basel II framework relevant to banks in many different markets. Indeed, the Reserve Bank of India has played an important role in sharing the perspective of an emerging market country through its participation in the Basel Committee's Core Principles Liaison Group. In addition, representatives of Indian banks shared their views and even data on how they would be affected by the new framework. I would like to express my sincere appreciation to all of our colleagues in India who contributed to improving the quality and applicability of the new framework.

Unlike the 1988 Accord, which was relatively simple to adopt, Basel II is admittedly more complex and demands more of banks and supervisors. Therefore, the Committee does not expect Basel II to be adopted as widely and quickly as the 1988 Accord, at least at the outset. However, we expect and hope that the number of countries that adopt the new framework will grow over time. We also hope that they will do so only when they are ready. And when they are ready, we believe that they should adopt the options and approaches that are most appropriate for the state of their markets, their banking systems, and their supervisory structures.

Is Basel II appropriate for banks in emerging markets?

A second question I hear frequently is whether Basel II is even appropriate for banking systems in emerging markets, which I would like to address now.

In my view, the principles and vision of supervision in Basel II are valuable for supervisors and banks in all markets. The great level of diversity in markets and in financial systems worldwide makes it difficult - and perhaps even counterproductive - to try to specify a single rule that could be applied to all banks in all countries. Fortunately, Basel II's menu approach provides supervisors and banks with options that make its basic standards more readily available to many kinds of organisations and economic circumstances. As I mentioned earlier as well, Basel II's three-pillar approach provides an "efficient frontier" of policy objectives that are relevant to banks in any country by emphasising the need for banks to assess their risks; the need for supervisors to evaluate those assessments; and the need for transparency to promote greater marketplace discipline.

One specific concern that some have expressed about Basel II's applicability in emerging markets is that banks with more basic risk management systems will rely on external credit ratings issued by rating agencies under Basel II's standardised approach to credit risk. In some emerging markets, there may still be few, if any, rated companies. The Committee has been mindful of this concern. If supervisors are uncomfortable with the use of external ratings in their countries, they may opt to weight all corporate claims at 100%, while sovereigns and banks can be risk weighted according to the risk scores of export credit agencies. This eliminates the dependence on ratings issued by external credit agencies.

Indeed, our discussions with colleagues and counterparts from countries outside the Committee, including India, as I mentioned, have been instrumental in addressing other concerns in the capital framework. Thanks to our consultations, we have endeavoured to address several other broad issues in the new framework, including the document's apparent complexity and the consistency of its application internationally, which I will set out now.

Complexity

One inevitable by-product of designing a comprehensive three-pillar framework with a range of options for different circumstances is increased complexity. The members of the Basel Committee certainly recognise that it is far easier to enforce a simple rule than a complicated one. However, the balance that we seek is between simplicity and risk sensitivity: indeed, the banking industry has been quite clear in saying that we should not blindly pursue simple solutions if they would result in unnecessarily conservative estimates of capital requirements. Achieving a balance between simplicity and risk sensitivity is particularly difficult in an industry like banking, where a culture of constant innovation makes it a tall order for regulators to develop simple rules that fit all banking products and services in all their permutations. Paraphrasing Einstein, we might say that a good capital framework should be as simple as possible, but not simpler.

So while Basel II is admittedly a more complicated document than the 1988 Accord, I would suggest that much of its apparent complexity stems from the diversity existing in real world. The text provides multiple options in part because some banks and supervisors thought that a "blanket rule" would unfairly burden them. By providing a range of options, we are better able to fit the regulatory framework to each bank's risk profile, rather than the other way around.

Similarly, some of the complexity in Basel II stems from the details we provide to promote a more level playing field. Many bankers and supervisors asked the Committee to provide greater details where they thought a danger existed for differences in interpretation to arise across jurisdictions.

Nonetheless, we have worked hard over the past years to clarify the rules, to simplify those thought to be the most complex, and to provide options for those wishing to use a simpler approach. In fact, as the Basel Committee demonstrated in an annex to the third consultative paper, supervisors can select options that would result in a very simple set of rules that can be specified in just 12 pages of text. That is approximately half the length of the original 1988 Accord.

The “simplified standardised approach”, as we call it, is intended to be useful for those countries that do not wish to adopt all of the options available under the new framework. The trade-off, however, reflects the fact that the policy balance at stake is between simplicity and risk-sensitivity; if one chooses simpler rules, the cost is less sensitivity to risk and hence greater conservatism in capital requirements.

Competition and consistency of application

Another broad concern that the Committee has worked to address is Basel II’s impact on global competition. In particular, some have asked whether banks that choose Basel II’s advanced approaches will enjoy benefits over those that choose simpler approaches. Others have wondered whether banks that remain on the 1988 Accord for some time will be disadvantaged.

To respond to these concerns, we should understand that adopting an advanced approach does not automatically reduce a bank’s capital requirements. Basel II is intended to align capital requirements more closely to risk. Furthermore, some national supervisors may set higher capital requirements than implied by Basel I, perhaps even higher than those implied by Basel II, depending on the risk environment.

For those banks that do experience reductions in capital as a result of Basel II, some observers have questioned whether the lower requirements might provide certain advantages and make it easier for those banks to acquire other banks that do not share in the same benefits. History suggests that this particular concern may be unfounded. In a paper published this past February by the Federal Reserve, researchers reported that they did not find convincing evidence that past changes in capital requirements have had a substantial impact on mergers between banks.

The issue of competition between banks has also come up in the context of competition between countries. Here, we should remember that Basel II is intended to help ensure that international competition in banking markets is driven by the strengths of each bank, rather than by differences in each country’s rules.

One way that the Committee has sought to promote a consistent application of the new framework is by providing banks and supervisors with detailed requirements where necessary. As I have already mentioned, these details may add to the appearance of length and complexity in Basel II, but that is a small price to pay for greater consistency and a more level playing field.

However, given the need to have a framework which can be adapted to a wide range of circumstances, cooperation among supervisors is clearly the most important tool in achieving an appropriate level of consistency. The Committee has established a working group of supervisors, called the Accord Implementation Group, or “AIG,” that shares information on implementation efforts among Basel Committee member countries. The AIG works with other supervisors as well, including through the Core Principles Liaison Group, a group of supervisors from many other countries that shares views and exchanges information. By promoting the sharing of information on practical issues, the AIG’s discussions will help to foster greater consistency in the implementation and application of the new framework across countries.

Conclusion

I now look forward to hearing some additional perspectives from our panellists on Basel II and especially their thoughts on its implications for the Indian banking sector. As I have stressed in my remarks, Basel II is intended to reinforce our focus on risk and to encourage all of us to improve our skills in measuring and managing those risks. In one sense, then, Basel II might be considered an effort to re-invigorate the risk management culture in the banking sector. I believe that Basel II provides banks with the incentives necessary to encourage them to improve their risk management systems and processes. At the same time, the new capital framework will help to ensure that capital supervision continues to serve as a cornerstone to safety and soundness in the banking system. Both results will help to make banks more resilient, less sensitive to the ups and downs of the business cycle, and better able to serve as a source of credit and growth for businesses and consumers. Those benefits are worthy of our continued hard work.

Thank you for your attention.

Shamshad Akhtar: Basel II implementation issues, challenges and implications

Speech by Dr Shamshad Akhtar, Governor of the State Bank of Pakistan, at the 56th Annual General Meeting of the Institute of Bankers Pakistan, Karachi, 12 September 2006.

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The implementation of Basel II is a subject which has gripped a lot of interest both internationally and within Pakistan. Different efforts are underway within the country and across the globe to ensure an effective adoption of this new international regulatory and supervisory architecture.

In my remarks this morning I would like to briefly talk about the significance of ‘risk management’ underlying this framework. I would then like to discuss the important contributions of this architecture, and finally conclude with the issues, challenges and implications pertaining to its implementation. I would also like to touch briefly on where the region and the world is in the adoption of Basel II.

It has to be acknowledged at the outset that one cannot dispute the inevitability of risks, and different types of risks, in bank operations. With growing complexity of operations and product innovations, financial institutions have progressively become more exposed to a diverse set of risks. These risks stretch from credit risk to interest rate risk, liquidity risk, foreign currency risk, strategic risk, compliance risk, reputational risk, country risk and operational risk. The menu continues to become larger with each passing day, and with the developments in financial markets. These risks stretch quite far and deep, and have the inherent potential to significantly undermine the viability of the financial and corporate system, as well as that of the concerned institutions. There is a very high cost associated with what we believe are the *uncalculated* risks. These arise largely because of a number of issues, ranging from the inadequacy of internal controls and inadequate use of Information Technology, to the weak professional management of the institutions.

Such a large and diverse portfolio of risks gives a vivid description of the complexity of risk management as a subject. Yet these risks are far from being independent and require a holistic approach for their mitigation and management. It is both the financial institutions’ and the regulators’ responsibility to achieve an optimal management of these risks. We have an intrinsic interest in the financial health of each institution because all these institutions together define the financial stability, smooth functioning of the payment system, and eventually promote economic growth.

The past two decades have witnessed significant developments in the field of risk management. While financial institutions, dominated mainly by the large banking organizations, have invested heavily in strengthening their key internal processes to manage and measure risks, bank supervisors have been equally upto the task of devising more responsive and sophisticated solutions to the emerging challenges.

Let me highlight the fact that the entire process of development of the theoretical and practical literature on banking regulations and supervision owes its origin to the Basel Capital Accord which was introduced around 20 years ago. We all need to thank this innovation because it has served the banking industry well in the two last decades or so. But with the advent of the Asian financial crises in particular, and a number of other crises, the Latin American, the Russian, etc., the banking industry as a whole has come to recognize that Basel I fails to properly align capital with the actual risk profiles of the banks. It has created a wide gap between regulatory and economic capital and there are perceptions governing the dead-weight cost of regulations that have gotten stronger with the rapid pace of innovations. This cost is now impeding the efficient functioning of markets. This has laid the foundations of a very long-drawn process for Basel II, which recognizes the perceived shortcomings of Basel I and progressively addresses its inherent weaknesses, while gearing the risk management framework for the emerging financial engineering and innovation.

Basel II Accord, first of all, aims to align banks’ capital with their basic risk profiles. It is very elaborate and far superior in terms of its coverage and details. It exploits effectively the new frontiers of risk management. It seeks to give impetus to the development of a sound risk management system which hopefully will promote a more efficient, equitable and prudent allocation of resources. It is perceived to be the harbinger of the future disposition of bank supervision, and an evolutionary path for the banking industry. It is a product of a long, arduous, exhaustive consultative process. Not only has the Bank for International Settlements (BIS) produced a voluminous document which has been revised several times, incorporating comments of the various stakeholders, but every jurisdiction in the world has produced an equivalent amount of documentation to define the ground rules for its own implementation.

In my view, what is important to acknowledge is that Basel II has fundamentally altered the conventional rule-based and reactive approaches to designing a regulatory framework, to a superior and relevant regulatory and supervisory mechanism which is today more comprehensively assessing the various types of risks which I have mentioned and is inherently proactive. There are three pillars of this architecture. The first pillar refers to the minimum capital requirement, which includes an acknowledgement of the variety of risks and treatment of those risks. The second pillar is the supervisory review, and the third, market discipline. All the three pillars complement and mutually reinforce each other.

I would now like to turn to discussing briefly where I think some of the important regional economies are in terms of their preparation for Basel II before I conclude by discussing the issues and the challenges for its implementation.

Let me first talk about Pakistan. Whereas the State Bank of Pakistan has chalked out a roadmap for the transition of the banking system to this new capital regime, we intend to, like so many other economies, first adopt the standardized approach to credit risk and operational risk from January 1, 2008 and then move forward with the adoption of the internal ratings based (IRB) approach from January 1, 2010, subject to due diligence of the banks with international presence. Once SBP is satisfied that commercial banks have the appropriate models and risk management capacities, permission will then be granted for them to proceed with the IRB approach.

With respect to this game plan, the first phase of a parallel run involving relatively simple approaches has already taken off from July 1, 2006 and will continue for one and a half year. Similarly, the second phase for the adoption of advanced approaches will begin in January 2008 and will last for two years. The transitional period is expected to provide the banks and the supervisors, hopefully ample time to fine tune and strengthen their systems, and hone their technical and human resource capabilities. Among others, we rely on IBP to help in this process.

IRB approaches present an incentive to all banks, including Pakistani banks, to economize on capital. The large banks are expected to become more inclined towards this. However, as I stated earlier, State Bank would like to ensure adequate preparedness of the industry before we endorse the move towards IRB, and before we declare victory on this important subject.

All other countries of South Asia like India, Bangladesh, Sri Lanka etc. have issued their plans along similar lines. There are, of course, some differences regarding the pace and sequencing of the timetable depending on financial conditions and the type of banking activities in these countries. East Asian countries, including Malaysia, Indonesia and the Philippines, which are broadly implementing initially the simple approaches followed by a gradual transition to IRB approaches, have adopted their own course, depending on the prevailing situation.

I know also that the extent of adherence to the existing regulatory framework differs from country to country in these regions. What is, however, different from the South Asian and some of the middle income East Asian economies, is that some of these economies, such as Japan, Hongkong, Taiwan, Singapore and Korea have large financial sectors, given their state of development, and have proceeded with a swifter adoption of IRB approaches, almost consistent with the implementation schedule of Basel II. But again, the process of implementation is dependent on the state of technology prevalent in the banks in these countries. China has been pursuing a very cautious and steady approach in respect of Basel II, and it plans to put in place first of all International Accounting Systems and then a robust risk management system before it graduates to Basel II.

Let me now turn to the issues, challenges and the implications of Basel II. In some senses Basel II is a revolution in regulation and risk management. According to the KPMG international whitepaper, depending on its current risk management processes, size, customers, portfolio and markets, a particular bank is likely to experience varying effects of Basel II on at least four levels, namely internal processes, customers, businesses and global interaction. However, it is not just the banks that will be impacted in the Basel II environment. I believe this accord would also affect the behavior of a number of other industries, including credit rating agencies, external auditors, banks' customers, regulators and finally the corporate sector at large.

What are some of the key challenges pertaining to the Basel II Accord ? The list that I am about to cover is by no means an exhaustive one. First of all, I would like to underscore that there is an absolute need to instill a well functioning, integrated and efficient risk management system at the macro level by the supervisors and by the institutions. Second, we need absolute accuracy and reliability of information. Third, we need asymmetry in supervision; we need to recognize that the markets are imperfect. Fourth, industries face pro-cyclicality which needs to be recognized and due consideration needs to be given to incorporating this phenomenon. Also, there are serious implications for access to finance for certain sectors, groups and the disadvantaged segments of the population, given that there is going to be a huge operational cost for the banks and the regulator with the implementation of Basel II. And lastly, there will be cross-border challenges for not only Pakistan but a number of other jurisdictions, including the developed countries.

Let me first briefly touch upon the risk management aspect. I think it would be fair to say that there has been, as I said, a revolution led by innovation in the risk management field. Not only have we identified, quantified and developed various models in risk management but we have also nurtured the aspect of risk management in a number of institutions all over the world. So I don't see it as being an impossible task for economies. There are complications in its implementation where there are inherent weaknesses of different types. We all know that the world has suffered repeatedly from the accumulated huge portfolio of non-performing loans. And the non-performing loans would be a reality even if we were to absolutely eliminate the vested interests from the banking system which encourages willful default, a factor quite familiar to us. Defaults are inevitable because of the conventional corporate risks as well as the business cycles that industries face. What is important in going forward is to be able to define and capture these risks effectively, and to appropriately weigh these risks and make effective provisions. It is really in this context that Basel II defines and lays the ground rules for risk management.

Banks all over the world have been more cautious in their credit appraisal and monitoring system and in assessing the gaps in their risk management systems. I think the most important factor in positioning ourselves effectively is education, which alone will help us to understand what the risk management architecture is all about.

Let me now talk briefly about the second item. The success of Basel II depends exclusively on the accuracy and reliability of good quality data. We need adoption of the international financial accounting and reporting systems. We need to assess the risks accurately. And there has to be intellectual honesty in reporting all this. Besides the internal assessment of the reliability of information from a regulator's point of view, the requisite comfort will be achieved only if an independent agency is able to do a due diligence of the company and its inherent risks. Within Pakistan there are only two credit rating agencies and I am not sure that with the universe that they capture, whether we are well positioned to go forward in even adopting the standardized approach effectively. In addition to the credit rating institutions, we need to exploit more effectively the role of the auditors of the borrowing entity. It has to be acknowledged that the data stream currently available is not fully comprehensive to serve our requirements. So it is not just about developing information flows; it's about changing the quality and the timely reporting of this data.

Another important aspect of reliability is business continuity planning and sophistication of the IT resources, both in the State Bank as well in the banking industry. And again, we need to cover a lot of ground here.

The third item which I mentioned is asymmetry of supervision, which occurs when different market participants are regulated by separate supervisors. This makes it difficult for us to maintain comparable levels of vigilance and quality of objectives in policy formulation. The asymmetric regulatory regime can be within the country, for example between banks and securities firms, as well as at cross-border levels. The Basel Accord provides an excellent opportunity for developing common standards. Yet it requires much closer cooperation, information-sharing and coordination of policies. In many developing countries only the banks are required to comply with Basel II, and not the other financial services providers. This carries the risk of promoting regulatory arbitrage. In the context of Pakistan, it is important that the coordination of policies at the regulators' level i.e. SECP and SBP, be pursued actively. This will be part of our deliberations with our co-regulator.

Let me now talk about the fourth item, i.e. imperfect markets and the challenges they pose. The functioning of the risk assessment systems of banks is clearly affected by the nature of innumerable types of distortions in the markets. In Pakistan, like everywhere else, there are several problems that can create these distortions. These can pertain to the dominance of large players, or they could be related to the high asymmetry of information or the lack of market depth and so on and so forth. Price manipulation by significant market players can also distort the true market value of the securities portfolio. To make any meaningful assessment of market risks and encourage market discipline, market imperfections have to be first of all recognized and then it is the job of the policy-makers to ensure that it puts in place a legal and regulatory framework which could minimize these distortions. Clearly the banking sector has a role to play in this regard as a responsible citizen of the financial services industry itself. The regulator also has to do a lot of work in this area. It has to be capable of assessing the price risk and identifying situations in which market values of portfolios have been over- or under-stated by the regulated institutions through price manipulations. In this context, market surveillance by the regulator needs to be enhanced, an area which is clearly a shortcoming currently.

The fifth item relates to business and economic cycles and their behavior. The basic criticism on Basel II from all quarters is related to pro-cyclicality. The new accord makes the business cycle in an economy much more pronounced. It can create problems for policy-makers and also for economic stability. The arguments suggest that in times of recession as the borrower's credit risk increases, as measured by either of the approaches, the banks will curtail lending, while in a booming economy they will expand lending. The proponents of Basel II, however, have argued that under the new accord the deterioration of a portfolio should begin to be reflected in a bank's capital adequacy itself at a much earlier stage and no further deterioration should ideally occur in the capital adequacy ratio when it is recognized as an accounting loss. Several options have been proposed for this purpose. For example, discretionary powers granted to supervisors under pillar II, such as the ability to demand a buffer of additional capital during a business cycle expansion, is one way of addressing pro-cyclicality. Another is to adjust the value of the probability of default in the internal ratings approach or advance approaches which draw on the historical trend analysis of the business cycle. Whatever we do, we have to somehow come to grips with this phenomenon.

The sixth point is how does Basel II introduce complications for access to finance. This is an area where we have to be careful because there is a lot of scope to enhance funding to the desired sectors and to specific groups of individuals which are currently under-served. First of all it has to be recognized that the banks do have to enhance business and coverage in these vulnerable sectors and vulnerable segments of population. So will this mean that they would require higher capital allocation for assuming what has got to be a higher credit risk? Yes, of course, but this will clearly and hopefully not be a deterrent in encouraging credit flows to the small businesses and poor segments of the society, because we have to somehow accommodate this through better credit appraisal and credit vigilance rather than by adding excessive capital. One aspect which has been clearly underdeveloped in this architecture is how should the credit scoring mechanism be adopted for the small companies? Some advancement has been made in this area in Latin America, and SBP will have to actually look at this area quite closely. I am not advocating a fundamental deviation from Basel II, but rather proposing to find a robust and a workable solution to what I believe is a daunting problem.

Another aspect that I will touch upon is the operational cost of Basel II. As we know, the installation of the risk assessment system, the cost of the IT system, hiring of new, technically more competent staff, etc., entails a heavy cost for banks as a pre-requisite for the adoption of Basel II.

In Europe, the cost of Basel II implementation was estimated to be over US$ 15 million for some large jurisdictions alone. It is this phenomenal cost which has deterred the United States; it is still deliberating on how to adopt Basel II and has declared that it will adopt a variant of Basel II for its own banks.

Finally, my last point is about the cross-border challenges and with this I would like to conclude. The challenges discussed so far become more pronounced when we have free cross-border capital flows. One of the main areas of concern which has been studied extensively, relates to the higher capital requirements in the advanced countries due to the flows that they have towards the developing countries. The conclusion derived from the empirical evidence was that there will be a decline in the banking flows from international centres to the developing countries because of the higher risk perception of their financial systems, and lack of appropriate rating and risk management systems. If not effectively addressed, this will be clearly a deterrent for the western economies to actually send flows to these jurisdictions.

The issue surrounding cross-border flows pertains to the difficulty in information-sharing across sectors and across borders. Lack of complete accessibility to information or sharing poor quality information will restrict the credit flows from banks of developed countries into the emerging economies. The most basic step is to ensure that no matter what the stage of development is vis-à-vis Basel II implementation, we should at least ensure accurate information disclosure in accordance with the rules defined in pillar III. This would help, along with the regulators' strong approach to this architecture, in building the confidence level of the foreign donors and the banks.

In my recent meetings with various banks, I have observed that they are taking some important initiatives with respect to the implementation roadmap of Basle II. But clearly the quality and level of these initiatives varies from institution to institution. Large banks that today have more resources, thanks to high profitability, are moving forward progressively. The small banks clearly do not have the capacity and will have to benefit from the learning and the architecture being developed by the large banks which they can adopt with some modifications to suit their requirements.

In conclusion, I would like to urge banks to make speedier and concerted capacity building measures for training human resources in targeted fields. IBP and NIBAF will have to transform themselves to actually come up to the challenge of the requirements of Basel II. Banks will have to develop internal risk models and advance risk management systems. But most importantly, I implore banks to strengthen their internal control systems, which are generally substantially weak. We also have to encourage better coordination with our fellow regulator of the securities market. We have to bring in more competition in the credit rating business and in the auditing field. Simply put, we have to set new standards and work hand in glove with the financial industry.

Implementation of Basel II Capital Requirements by Foreign Banking Institutions' Branches and Agencies in New York State

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Abstract

In the second half of October 2004 the New York State Banking Department initiated an informal survey on Basel II plans by foreign branches and agencies supervised by the Department. A set of questions regarding the approaches to credit and operational risk to be implemented in headquarters as well as in New York subsidiaries was distributed. Replies came from 82 institutions out of 106 of concern, a response rate of 77%.

Only five banks claimed they do not consider adopting Basel II at any point in the future. Most of the remaining institutions plan to stick to the adoption timelines suggested by the Basel Committee. Some banks will adopt more than one approach simultaneously or will switch to an advanced approach within a year or two of adoption. The two internal ratings based (IRB) approaches to credit risk will be applied by over ¾ of the institutions. A typical advanced IRB NY branch bank is headquartered in Europe and has over $10 billion in U.S. assets. The Standardized credit risk approach is generally going to be followed by Asian banks with less than $1 billion in U.S. assets. A little less than a half of the NY branch foreign banks will follow the advanced measurement approach (AMA) to operational risk. Asian banks prefer the standardized operational risk approach while European ones opt for AMA.

Overview

The Basel Committee was established as the Committee on Banking Regulation and Supervisory Practices by the central-bank governors of the Group of the Industrialized Ten Nations in 1974. The first capital adequacy regulation was issued in 1988; the so-called Basel Capital Accord imposed a minimum level of capital of 8% over risk-adjusted assets. In January 2001, the Basel Committee launched an initiative for remodeling of capital adequacy requirements. The new Basel II framework consists of three pillars: minimum capital requirements, supervisory review of an institution's capital adequacy and internal assessment process, and effective use of market discipline as a lever to strengthen disclosure and encourage safe and sound banking practices.

The Basel II Framework was approved by the central bank governors and bank supervisors of the Group of Ten as "International Convergence of Capital Measurement and Capital Standards: a Revised Framework", on June 26, 2004. The Basel Committee intends to have the Framework available for implementation by the individual countries at the early end of 2006 (for the more advanced approaches, 2007). Each national supervisor is considered autonomous in developing a timetable and approach to implementation.

According to the Advanced Notice of Proposed Rulemaking jointly issued in August 2003 by the Office of the Controller of the Currency (OCC), the Board of Governors of the Federal Reserve, the Federal Deposit Insurance Corporation (FDIC) and the Office of Thrift Supervision (OTS), only large, internationally active banking organizations in the United States will be required to implement the Basel II Framework. Basel II will be mandatory for institutions with total banking and thrift assets of $250 billion and more or total balance sheet foreign exposure of $10 billion or more. All other institutions may apply Basel II Capital Requirements on a voluntary basis. Furthermore, all U.S. institutions implementing Basel II will have to follow the advanced approaches for credit and operational risk.

Objective

The New York State Banking Department initiated an informal survey on the implementation of Basel II Capital Requirements by Foreign Branches and Foreign Agencies supervised by the Department in October 2004. The survey was aimed at describing the capital adequacy policies that are about to be implemented by the parent institutions of foreign agencies and branches under state regulation, in accordance with the new guidelines set forth by the Bank of International Settlements. These policies will reflect all the approaches to capital calculations proposed by the Basel Committee, not just the Advanced Approaches required under U.S. implementation. The Research Unit conducted the survey to better understand the prevalence of different Basel II approaches, both to support training initiatives and provide support to the examination staff.

Description of the Survey

The Survey was drafted and distributed in the second half of October 2004. The core information that the survey sought to obtain was whether the institutions intended to adhere to the Basel II requirements and which approaches to addressing credit and operational risk are to be followed.

The survey was addressed primarily to the foreign banks' branches and agencies that are licensed by the State of New York; occasionally data on subsidiaries were gathered, as subsidiaries often exist together with branches or agencies of the same parent[1]. Since these institutions must follow guidelines from their respective home country regulators, their risk capital policy can differ from the one required in the host country, i.e. the United States.

Following identification of the institutions concerned, it was agreed that the team leaders or Central Points of Contact (CPCs) responsible for direct supervision of each institution would assist in providing contact information as well as basic information about the parent institution and principal activities in which both the parent and the branch or agency engages. Other information to be provided by examiners included: degree of global presence, whether the branch or agency is a member of a financial holding company, and whether it is FDIC insured. More details about the information received by the examiners can be found in Appendix II.

Due to the substantial number of foreign branches and agencies present in the State of New York, a questionnaire form that could be filled in by Team Leaders/CPCs was created. Information in a Microsoft Access database was collected between October 10, 2005 and October 20, 2005. Most of the contact information on the respective foreign branches and agencies was gathered through the database. Initially, the Access database included questions regarding Basel II implementation as well as the credit and operational risk approaches to be followed by parents. However, upon receipt of the filled-in forms it became apparent that most team leaders/CPCs had not provided answers to those questions due to lack of information from the foreign branches or agencies. It was assumed that, in most cases, management at the branches or agencies in New York State had yet to obtain information on the implementation of Basel II capital requirements from their respective parent institutions. Adherence to Basel II is generally decided at headquarters and at many institutions is still an ongoing process.

The information provided by the bank examiners through the Microsoft Access Database consists of the following categories: name, type (foreign branch or foreign agency), parent name and home country of the institution, whether it is FDIC insured, countries of representation, whether it is government owned or private, and whether it is listed on a stock exchange in the home or host country. In addition, bank examiners had to provide information on whether the foreign branch/agency is part of a bank holding company and what services other than general banking are offered in New York State.

The second part of the survey addressed the choice of credit and operational risk approaches by the parents of foreign branches and agencies in the State of New York. The questionnaire also asked whether the banking institutions are required to implement the Basel II Capital Framework and if they will do so on a voluntary basis.

Between October 20 and November 10, an initial call was made to each contact person at the branches and agencies of foreign banks in the State of New York. The person contacted generally suggested he or she forward the questions to the respective headquarters since the decision on Basel II is most likely to be taken at the head office. After the call, the questionnaire form was sent by email or fax to the contact person. Responses were received in the interval between three days to three weeks after the sending of the questionnaire. Occasionally the response was not clear and an additional call with a request for clarification had to be made.

Results

Altogether 127 institutions of interest were identified for the present survey. This number includes subsidiaries of foreign banks as well as multiple branch locations of foreign banks within New York State. In accordance with the consolidated basis for implementing the new framework, only the main institution – usually a branch or an agency – within the family of a foreign banking organization in New York was contacted[2]. Therefore, the number of institutions of interest was reduced to 106.

A total number of 103 institutions were contacted directly – either by email or telephone and a questionnaire was sent[3]. For the purposes of the present survey, branches and agencies of foreign banks were divided according to the geographic region of the parent institution. Europe included countries from Western Europe plus Turkey. All of the Western European countries with banks that have branches and agencies in New York except Switzerland and Norway are members of the European Union, which means that they will have to follow guidelines from Brussels. Draft EU legislation provides for compulsory adherence to Basel II by all EU banks, regardless of their size and area of operation.

Asia included Australia (with no state chartered banks in New York), countries in East Asia (Japan, South Korea, Taiwan), as well as South Asian countries such as India and Pakistan. Certain countries in the region are not covered by the present survey as none of the contacted banks from these countries responded. National regulators in these countries may not have made policy decisions regarding Basel II yet. Americas consisted of the countries in South and Latin America, the Caribbean plus Canada. Middle East and North Africa included Israel.

A total of 82 branches and agencies responded to the survey. The response rate for the whole sample was 77%, which is more than ¾ of all institutions supervised. Middle East and North Africa had the highest response rate with all banks from the region providing feedback. However, it should be taken into account that there are only five state-supervised branches or agencies from the region in New York State and the absolute number of responding banks from the other regions is higher. The Americas had the lowest response rate of 60%. The two regions with the highest number of state chartered banks – Europe with 47 institutions and Asia with 37 institutions – showed almost equal response rates of 82% and 78% respectively.

Institutions' Basel II plans (regardless of the specific capital and operating risk approaches to be implemented) can also be illustrative for same-country institutions, which have not provided feedback. In this respect, respondents were asked whether they will follow Basel II as a result of mandatory guidelines by national regulator or will do it on a voluntary basis. Compulsory Basel II adoption, indicated by most of the institutions within the EU area, reflects draft EU legislation for universal Basel II application within the Union.

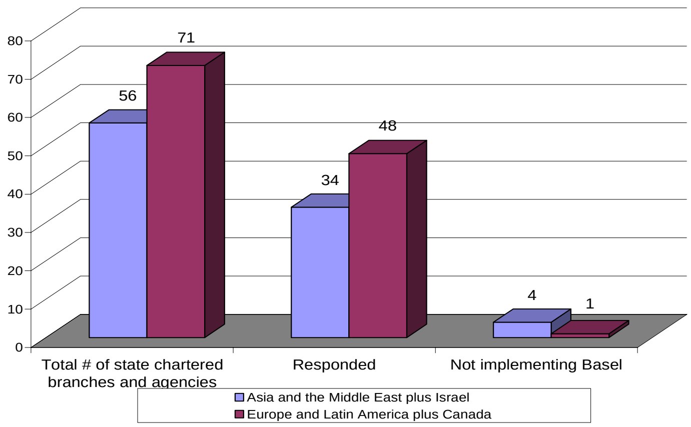
On the other hand, banks from certain countries gave different answers on the required or voluntary question, reflecting different regulatory opinions on whether banks should be required to adopt the new framework or not depending on the size and the scope of their international activities. In some cases inconsistency on this question reveals equivocal policy guidelines by national regulators and policy makers. Some banks from a certain Asian country responded that they will adopt Basel II on a voluntary basis, others said it is required.

None of the banks from some countries such as India, Indonesia, Philippines, Portugal, Colombia, Dominican Republic and Mexico responded to the survey perhaps reflecting continuing uncertainties about Basel II regulations. In the case of Portugal, adoption of Basel II is certain since the country is a member of the EU.

More information on Basel II implementation plans in certain countries not covered by the present survey can be found in Appendix I. The survey did not provide information on these countries either because institutions originating from them maintain only nationally chartered branches or agencies in New York and were not surveyed (Australia, Bahrain, Chile, China, Hong Kong), or because of lack of response to the survey (India, Israel, Philippines, Turkey).

Results by approach

A total number of five banks responded that they are not going to implement Basel II in the near future. Three of them are in Asia one is in Latin America and one is in the Middle East. The remaining 77 branches and agencies of foreign banks indicated that they intend to follow Basel II (Figure 1).



1. Response by region

Most institutions have pointed out that they intend to observe the timeline for implementation issued by the Basel Committee, starting with the Basic Approaches to credit and operational risk by year-end 2006 and possibly switching to the advanced ones by year-end 2007. However, there are certain institutions that are going to adopt various approaches later during the decade. Other banks indicated that they will implement one or several of the Basel II credit and operational risk approaches but are yet to decide exactly which ones. Another institution had already chosen to implement an advanced credit risk approach but noted that it is waiting for regulatory guidelines regarding the operational risk approach.

Some banks have indicated that they will follow more than one of the credit and operational risk approaches available. Three institutions in Asia and the Middle East and one in Europe and Latin America plan to start with one of the basic credit risk approaches and switch to an advanced approach later. Four of the institutions with a parent in Europe will implement more than one credit risk approach simultaneously. Two banks stated that they will adopt an Internal Ratings Based (IRB) approach, but have not decided which one. A branch of a Middle Eastern Bank indicated an intention to implement an IRB approach if allowed by the home country regulator.

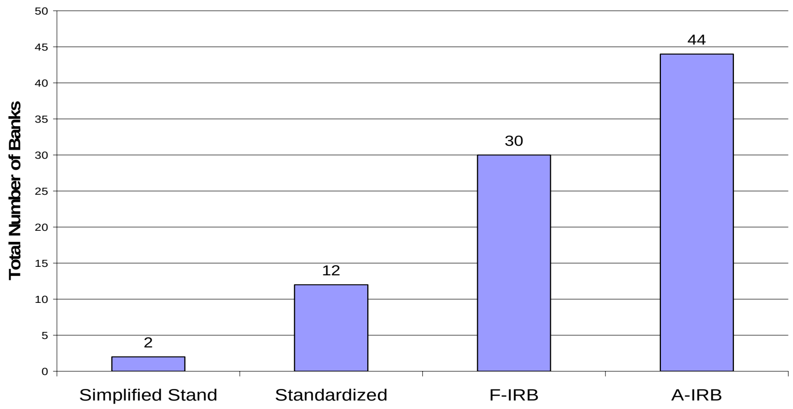
Regarding the operational risk approaches, two banks, one from Europe and one from Latin America, will implement more than one approach simultaneously, one bank from Asia and Middle East and one bank from Europe and Latin America will start with a standardized approach and will switch to an advanced approach later. An Asian bank will first implement more than one basic approach and will later convert to an advanced approach. Two European banks have yet to decide whether to apply the basic or the advanced approach.

Implementation of credit risk approaches

A total of 88 banks plan to implement one of the various approaches to credit risk. The number exceeds the count of banks responding to the survey since some institutions indicated that they will use more than one approach, either simultaneously or will upgrade to an advanced approach after obtaining experience with the basic and standardized ones. The Advanced Internal Ratings Based Approach (A-IRB) will be the one most frequently implemented by the branches and agencies of foreign banks (Figure 2). Exactly half of the respondents indicated that they will follow A-IRB. In a similar survey of 162 institutions from Europe, North America and Asia-Pacific published by Deloitte & Touche in December 2004, 49% of the respondents said they will use A-IRB[4]. According to the study, the Foundation Internal Ratings Based Approach (F-IRB) and the Standardized Approach will be followed be even more banks – 50% and 60% respectively. Deloitte's numbers add up to more than a hundred since respondents indicated following more than one approach simultaneously or switching to an advanced approach later.

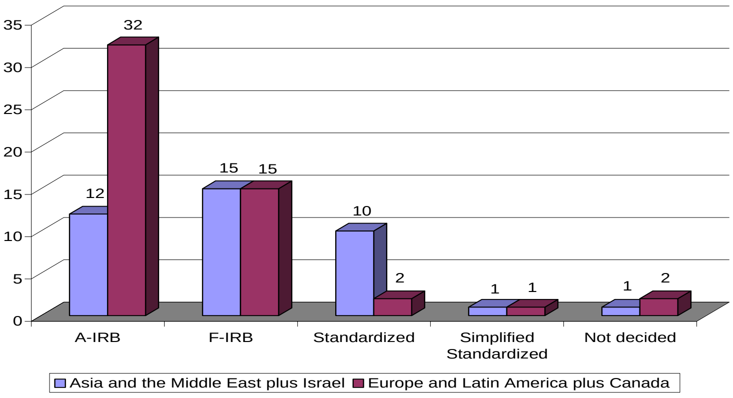
The figures show that the parent institutions of the New York State-supervised branches and agencies favor A-IRB over the basic approaches. This may be because New York hosts branches of large and complex banks with global operations, which are more likely to use A-IRB, or parents of the branches and agencies may prefer to follow the same approaches as U.S. mandatory banks, which will be required to use the advanced approaches to credit and operational risk.

2. Credit Risk



A look at the chart of credit risk approaches to be implemented by institutions grouped regionally (Latin America was grouped with Europe and the Middle East was grouped with Asia due to the low number of institutions from these regions represented in the sample) reveals that the two Internal Ratings Based Approaches (IRB) are by far the most popular ones to be implemented in Europe, with A-IRB taking the lead. The basic and standardized approaches are only represented in Latin America and Turkey. In Asia and the Middle East the F-IRB is the most popular followed by an almost equal number of banks planning to use the A-IRB and the Standardized Approach (Figure 3).

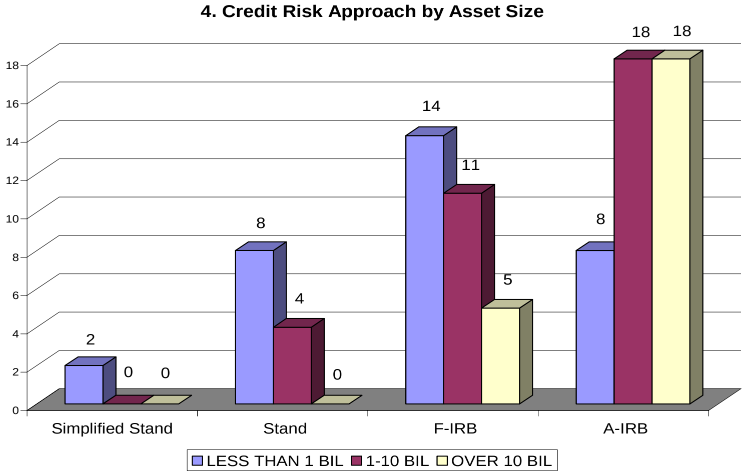
3. Credit Risk Approach by Region



While the present survey was being conducted it was estimated that the scale of a bank's operations and its relevant size are correlated with the approaches it plans to adopt. The June 30, 2004, domestic U.S. assets size of the New York branch or agency of a foreign bank as cited by the Federal Reserve was used as an approximation of the institution's scale of operations.

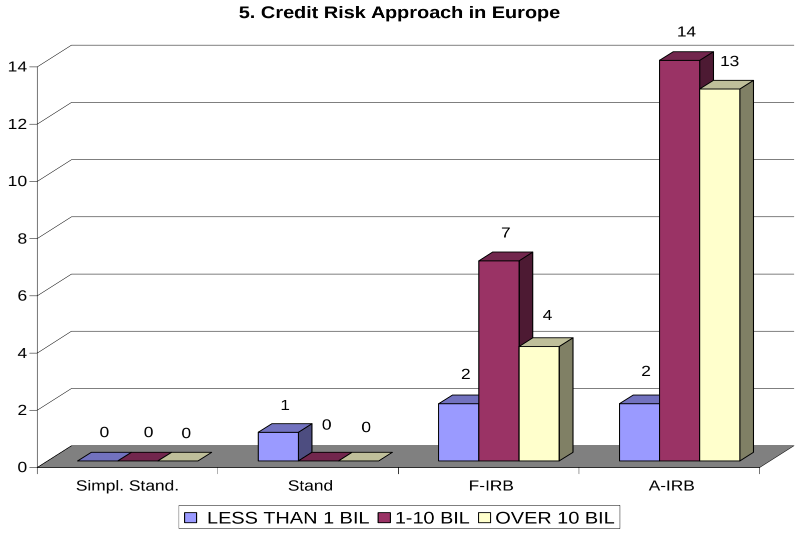
However a certain caveat should be indicated. Basel II implementation by branches and agencies of foreign banks is likely to be on a consolidated basis, i.e., will generally be decided not in New

York but in the corporate headquarters in the parent country. Whereas asset size at the branch or agency in New York was used for observing the likelihood of Basel II adoption, presence in New York may not correctly reflect whether a banking institution is a sizeable, diversified and universally present entity. In this respect Department surveyors assumed that New York asset size is a good approximation for the size of the whole banking company worldwide. New York remains the most important global financial center, and bank asset size in New York was generally presumed to mirror the worldwide bank asset size (Figure 4).



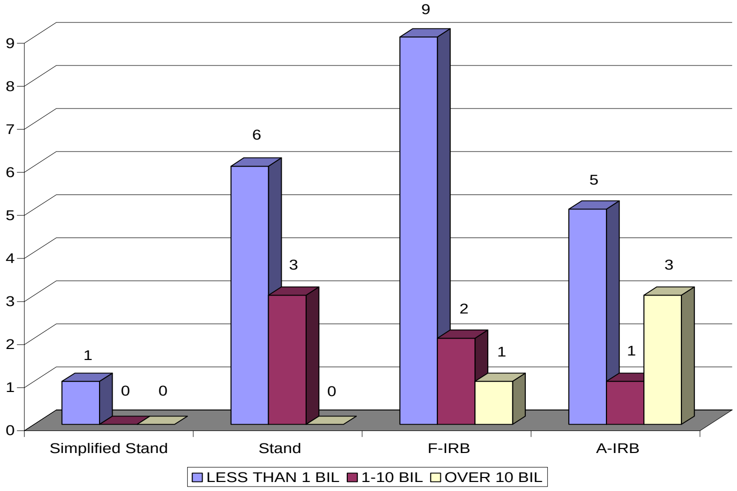
As seen from the graph, the larger the asset size of a survey bank, the more likely it is to adopt one of the IRB approaches for evaluation of credit risk. Most branches and agencies with more than $1 billion dollars in assets are going to implement the A-IRB. Only banks with assets of less than $1 billion are more likely to choose the F-IRB. The second most popular choice for them is either the Standardized or the A-IRB.

In Europe only one survey bank will not implement an IRB approach – it has chosen the Standardized Approach. Banks with less than $1 billion in assets in New York are equally likely to implement the F-IRB or the A-IRB. Institutions with assets exceeding $1 billion are significantly more likely to follow A-IRB than the F-IRB   (Figure 5).



Asian survey banks tend to be smaller in asset size compared to the European ones. In Asia, banks with assets of more than $10 billion are likely to adopt A-IRB. There are only four such banks, all Japanese. Among the six banks with asset size between $1 and $10 billion, the most popular approach is the standardized followed by the F-IRB. One such bank will follow the A-IRB. Among the remaining 21 banks, F-IRB is the most frequent choice. Impact studies have shown that Asian banks which have faced losses on riskier portfolios will have to assign higher risk capital charges. Some observers have said that the data needed for estimating probability of default (PD) for loan losses during the Asian financial crisis may discourage banks from switching to the advanced Basel II approaches in the next two years[5] (Figure 6).

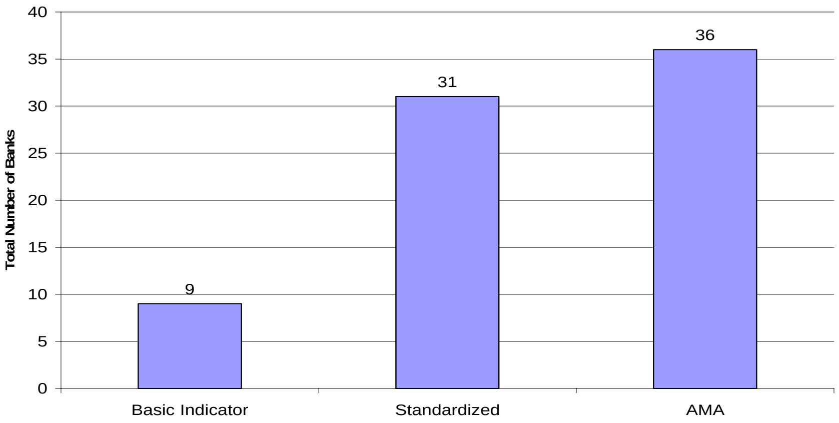
6. Credit Risk Approach in Asia



Implementation of operational risk approaches

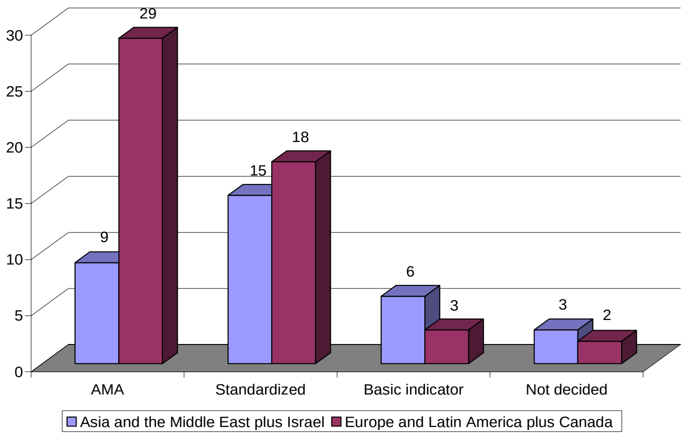
A total of 76 institutions were estimated to be implementing one of the approaches to operational risk in the near future. As with the credit risk approaches, branches and agencies that intend to apply more than one approach simultaneously, or intend to switch to a more advanced approach after starting with a basic one, are counted more than once. Thus the survey captures implementation of different approaches more accurately (Figure 7).

7. Operational Risk



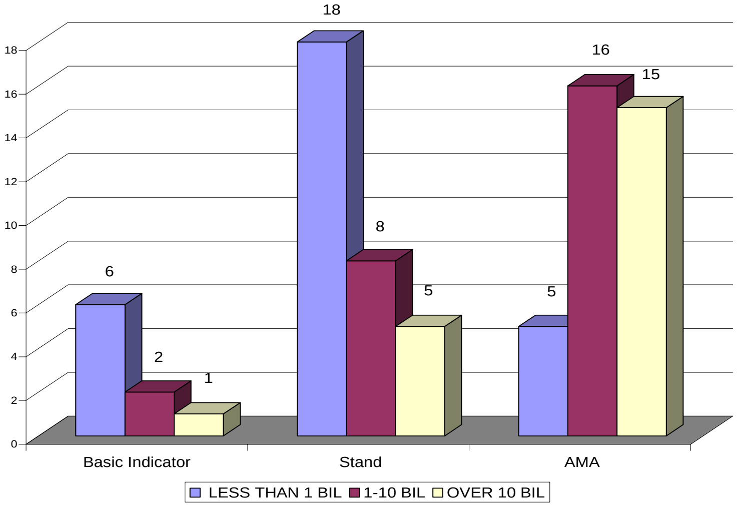
The Standardized and Advanced Measurement Approach (AMA) are almost equally favored by the institutions surveyed. A look at the approaches to be followed by branches and agencies grouped regionally (Europe together with Latin America and Asia together with the Middle East) reveals that European banks will predominantly use AMA and the Standardized approach while only three banks will follow the Basic Indicator. Asian and Middle Eastern banks are more likely to adopt the Basic and Standardized Approaches with six institutions implementing the Basic Indicator, fifteen institutions preferring the Standardized and just nine institutions preparing for AMA (Figure 8).

8. Operational Risk Approach by Region

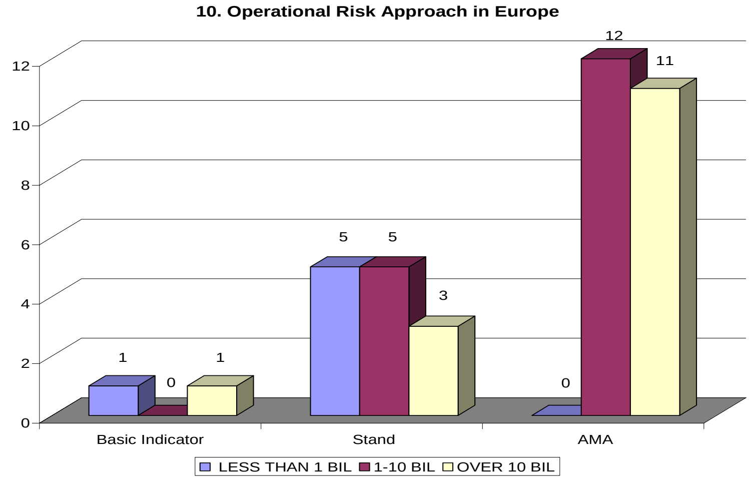


Implementation of the operational risk approaches were also estimated to be correlated with the institution's asset size. Approximately three quarters of the responding banks with assets exceeding $10 billion indicated AMA as the approach they will follow. Only one such bank will adopt the Basic Indicator. Among banks with assets between $1 and $10 billion, eight will follow the Standardized, two will follow the Basic Indicator and sixteen banks will use AMA in evaluating operational risk. Banks with asset amounts of less than $1 billion are generally going to implement the Standardized Approach to operational risk with AMA and the Basic Indicator used by an almost equal number of institutions (Figure 9).

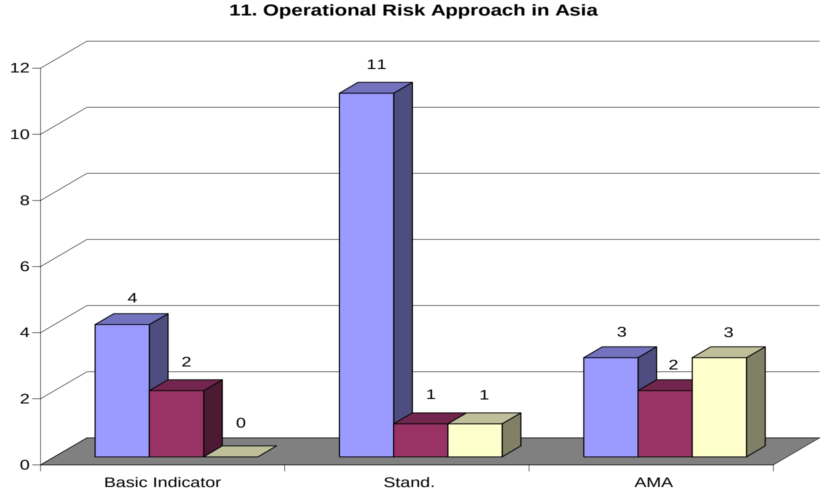
9. Operational Risk Approach by Asset Size



In Europe, AMA is overwhelmingly the most popular approach. The Standardized approach will be implemented by thirteen banks while only two institutions have chosen Basic Indicator as an operational risk approach. None of the smallest banks in the region has chosen the AMA (Figure 10).



In Asia the Standardized Approach, with thirteen entries, dominates the choice of the banking institutions. The Basic Indicator and AMA are almost equally represented. While the Basic Indicator is more likely to be followed by smaller institutions – there is no bank with assets exceeding $10 billion which will follow this approach – AMA followers from the region have different asset sizes. There are three institutions with assets of less than $1 billion while two have assets size between $1 billion and $10 billion. Three AMA implementing banks have more than $10 billion in assets (Figure 11).



Conclusion

During November and December 2004 the New York State Banking Department conducted a survey on Basel II implementation by parent banks of New York-located branches and agencies. The survey succeeded in illuminating the plans of the majority of foreign banking institutions in the State of New York as of the year-end 2004. Exceptions are sizeable federal-chartered branches and agencies of foreign banking institutions which were not contacted for the purpose of the survey. These include one Chinese, four Australian, one Austrian, one German, two Italian, two Swiss, two British, one Brazilian, one Canadian and a Uruguayan bank.

The overall response rate of 77% marks the survey as successful by casting light on the plans of three quarters of the state supervised institutions. Despite the fact that certain branches and agencies in the State of New York did not respond to the survey (Indian, Indonesian and some Latin American institutions) the survey showed that foreign banking institutions are engaged in active preparations for the new capital requirements framework. The survey also showed that competitive pressure will prompt institutions from non-Basel Committee countries to join banks from G-10 countries in considering adoption of the new capital accord. Most of the foreign regulators are actively involved in studying the implications of Basel II and are in the process of or have already issued guidelines for supervised institutions

Parents of foreign branches and agencies are at different stages of their preparation for Basel II. Generally the level of preparedness in New York mirrors what has already been completed in headquarters. Asian banks are at earlier stages of Basel II preparation than European ones, as indicated by a recent survey conducted by Ernst and Young – 65% of the 245 Asian banks interviewed have not yet started or are at early implementation stages[6]. This fact partially explains the lower response rate of Asian branches and agencies to the questionnaire.

When taking into consideration the likely Basel II implementation guidelines to be adopted in the United States (only certain large and internationally active institutions will be required to adopt the advanced approaches to credit and operational risk), it is evident that branches and agencies of foreign banking institutions that plan to follow the basic and standardized approaches will require a certain degree of differentiation in Basel II supervision. The difference stems directly from size and scope of operations in New York and indirectly from Basel II implementation plans to be decided at headquarters.

Branches and agencies may specialize in portfolios for which their adopted capital treatment is different from both current U.S. capital treatment and U.S. Basel II treatment, since the simpler Basel II approaches are available to their parent institutions. The presence of so many foreign branches and agencies in New York highlights the importance of New York as a global financial center and demonstrates the need for supervisors to understand all options for minimizing credit and operational risk provided by Basel II.

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APPENDIX 1 – INFORMATION ON BASEL II IMPLEMENTATION PLANS FROM OTHER SOURCES

Australia

The Australian Prudential Regulation Authority (APRA) will apply Basel II capital requirements to all authorized deposit taking institutions (ADIs) in Australia, except foreign bank branches to which capital adequacy requirements do not apply on a stand-alone basis[7]. ADIs include banks, building societies and credit unions[8] as well as subsidiaries and branches of foreign banks. APRA favors common end-2007 start date rather than the two-stage – end-2006 and end-2007 – dates proposed by the Basel Committee[9].

Bahrain

During 2004 the Bahrain Monetary Agency continued to hold discussions with banks on implementation of Basel II. The Agency carried out an impact study for the ten largest locally incorporated banks in Bahrain. Detailed work in finalizing Basel II implementation strategy and developing new regulations will start in 2005, with the goal of implementing some or all of the elements of Basel II from 2008 onwards[10].

Chile

The Office of the Chilean Superintendent of Banks and Financial Institutions has developed a program for Basel II implementation in Chile[11]. It consists of an external assessment of compliance with Basel core principles, reform of the loan classification and provisioning system (in line with Pillar I), implementation of a risk-based supervisory system (Pillar II), convergence of domestic accounting rules with international standards (Pillar III) and a quantitative assessment of the impact of the new capital requirements.

An external assessment conducted jointly by the World Bank and the IMF under the Financial Sector Assessment Program in 2004 found over 80% compliance with Basel core principles. In force since January 2004, the reformed loan classification system separates loans in 10 categories and permits the use of internal models by banks. Measures regarding the other two pillars of Basel II have also been undertaken. Chile took part in QIS 3 with three largest banks enforcing the Standardized Approaches, while carrying a similar exercise for the remaining institutions. No major impact on the banking industry was recorded. A roadmap for Basel II implementation was to be published in the last quarter of 2004. The necessary steps envisaged include initial implementation of the standardized approaches followed by moving to the advanced ones.

China

The China Banking Regulatory Commission (CBRC) announced in August 2003 that starting in 2004 a new regulation on capital adequacy standards for commercial banks would be applied. The regulation will have a requirement of 8% minimum capital adequacy ratio plus provisions for supervision and information disclosure. It will bring the Chinese banking system in line with Basel I[12]. CBRC has set a deadline (January 1, 2007) for banks to meet the new requirements. Under the new rules the capital adequacy ratio is calculated after a full deduction of bad loan provisions. Banks are required to fully set aside reserves only after 2005.

Hong Kong

In August 2004, the Hong Kong Monetary Authority (HKMA) issued a document titled “Proposal for Implementation of the New Basel Capital Adequacy Standards (Basel II) in Hong Kong”. In the paper HKMA indicated that it will stick to the timeline for implementation issued by the Basel

Committee. The HKMA aims to put in place the regulatory framework for implementation in Hong Kong within 2006[13]. The regulator intends to refrain from setting up any requirements for implementation of specific approaches; however banks will be allowed to implement the most advanced approaches after they have demonstrated their ability to do so.

A recent Ernst & Young survey indicates that most banks in Hong Kong will opt for the Standardized Approach with a number of internationally active ones following A-IRB and a small number using F-IRB[14]. A total number of nine Hong Kong banks are expected to follow one of the IRB approaches. These banks had to apply to HKMA by year-end 2004. An on-site validation of their internal ratings systems is planned for 2005.[15] HKMA intends to provide additionally a "basic approach" for credit risk based on the existing OECD framework for calculating a capital charge coupled with operational risk charges and Pillar II and III measures. Regarding operational risk approaches, only the Basic and Standardized approaches will be introduced.

India

The Reserve Bank of India agrees that Basel II should be primarily applied at internationally active banks, followed by adherence by all significant banks after a certain period of time. It is, therefore, suggested that a simplified standardized approach, based on internal rating systems of banks, may evolve for banks that are not internationally active.

In this regard, RBI is of the view that all banks with cross-border business exceeding 20% or 25% of their total business may be defined as internationally active banks.[16] Significant banks may be defined as those banks with complex structures and whose market share in the total assets of the domestic banking system exceeds 1%. In the event of no consensus evolving on a uniform definition, national supervisors should have discretion to define what constitutes an internationally active and a significant bank. Each national supervisor may, however, be required to announce the criteria adopted for defining internationally active and significant banks in its jurisdiction through the Basel Committee. The criteria, when endorsed, should be accepted by supervisors in other jurisdictions and by international agencies.[17]

RBI feels that the application of Basel II on a stand-alone basis with full deduction from total capital should continue to be an alternative, where banks are of simple structure.[18]

In early January 2005, RBI issued a statement indicating it will shortly come out with detailed guidelines on Basel II-like norms that Indian banks will have to comply with. The central bank is expected to have decided on a standardized approach for credit risk.

Indonesia

Indonesia's Central Bank has formed a Basel II compliance team which is responsible together with industry representatives for producing a comprehensive proposal on Basel II implementation in Indonesia. The team's work is still in an early stage and so far Indonesia is expected to implement the Standardized Approach beginning in 2007. Recently Indonesian banks have made strong progress in developing credit risk management systems and some could well be in a position to move towards the Foundation IRB approach in the future[19].

Israel

In November 2004, the Bank of Israel's Banking Supervision Department (BSD) issued the first draft of guidelines for the internal ratings based systems of banks, corporates and sovereigns which marks the onset of measures leading to implementation of Basel II[20]. BSD plans to implement in the future for the larger banking groups in Israel and intends to embark on consultations with the institutions concerned. Actual Basel II implementation is to be finalized in the next few years.

Philippines

Philippine financial services supervisor will issue guidance on capital adequacy in 2005 according to the Deputy Governor of the Central Bank of Philippines[21]. It expects banks to comply with the Standardized Approach for credit risk and either the Basic Indicator or Standardized approaches for operational risk by 2007. Institutions that are prepared to move to the IRB and AMA will be allowed to do so around 2010[22].

Singapore

According to a survey published by the credit rating agency Fitch, two of the three large size banking groups in Singapore will adopt F-IRB starting in 2007 and one will implement the Standardized Approach[23].

Thailand

The Bank of Thailand expects to release the first consultative paper on Basel II implementation in Thailand by June 2005. After input is provided by the industry, the regulator plans to issue final guidelines by the end of 2005. While the central bank has not indicated a particular approach Thai banks will have to use, it is expected that at least the Standardized Approach will be required. Year-end 2008 is likely to be set as a start of the implementation so that enough time is given to banks for preparation[24].

Turkey

The Turkish Banking Regulation and Supervision Agency (BRSA) established a forum for cooperation and discussion of Basel II implementation in March 2003. The Steering Committee on Basel II consists of representatives from the BRSA and banks. In September 2003 a Road Map for the Transition to the New Basel Capital Accord (Basel II) was adopted. BRSA, together with the World Bank, has organized a workshop on the implementation of risk-based capital in Turkey for February 2005[25].

APPENDIX II – GENERAL INFORMATION ABOUT THE BRANCHES AND AGENCIES OF FOREIGN BANKS PROVIDED BY NYSBD EXAMINERS

As an integral part of the survey, Banking Department examiners were asked to provide certain details about the branches and agencies of foreign banks to which they are assigned. Information provided by examiners includes: degree of global presence, whether the branch or agency is a member of a financial holding company and whether it is FDIC insured. It also gives details on whether the parent institution is government-owned or private and whether it is listed on a local or a U.S. stock exchange. In addition, examiners were asked to list the types of financial services provided by the branch or agency in New York and the lines of business in which the parent specializes. Importantly, the bank examiners indicated a contact person in each branch or agency who can be reached for further information about Basel II.

The country with the largest number of foreign branches or agencies licensed by the State of New York is Japan, with fifteen entities and twelve parents, followed by Germany, with ten entities and nine parents. As indicated by the examiners' responses, there are branches and agencies in New York that are represented in ten or more countries around the world. These institutions tend to be European, Canadian or Japanese banks. Regarding the ownership of the parent company, most of the branches and agencies are privately owned. There are also a number of state-owned banks – some of which are owned by the German federal states. There are also branches and agencies of state-owned banks from Asia, Europe, the Middle East and Latin America.

The majority of foreign entities in New York are foreign bank branches – these are foreign-owned entities at which deposits are accepted. Foreign agencies are New York State-located places of business of foreign banks where credit balances are maintained incidentally and which may not accept deposits from U.S. citizens or residents. New York foreign bank agencies generally originate from East Asia or Latin America. Foreign branches are established by European banks, although there are a few European banks which maintain agencies in New York.

Thirteen of the foreign bank branches identified for the survey are FDIC insured as indicated by the bank examiners. These include branches of Indian, Japanese and Israeli banks. Nine of the branches and agencies were publicly listed on stock exchanges both in New York and in the home country. Twenty-six were reported as not publicly listed either in their home countries or in the U.S. Most of the remaining institutions were indicated as listed only in their home countries, and no information was provided for nine branches or agencies.

Thirty-six of the institutions represented in the state were reported to be part of a banking holding company which also has an insurance line of business. Fifty-five of the branch or agency parents engage in investment banking activities and thirty three issue credit cards. Fifty-three parents perform asset management and forty seven engage in other financial intermediation activities. Eleven branches or agencies were reported to be part of a bank holding company that is active on all of the above mentioned lines of business. At the same time, thirty-four branches and agencies were reported to offer only general banking services in New York.

Notes

[1] There are a few foreign institutions which have both branches and subsidiary bank or trust companies in New York. In New York the subsidiaries may not follow the same approach as other entities in the home country and elsewhere. Subsidiaries may or may not apply Basel II on a stand alone basis, while the parent institution is required to follow Basel II on a consolidated basis

[2] Exceptions include foreign banks that maintain both branches and subsidiaries in New York, often the contact person in both subsidiary and branch was the same.

[3] Three institutions were not sent the questionnaire form

[4] Global Risk Regulator, Volume 3, Issue 1, p.16

[5] "Asian Banks and Basel II" Fitch Ratings Special Report, 19 January, 2005

[6] "Asia-Pacific Basel II Survey", Ernst&Young, Hong Kong, 20 December 2004, http://www.ey.com/global/download.nsf/China_E/Asia_Basel_-_Presentation/$file/Basel%20II%20survey-Presentation%20slides%20(for%20pc).pdf

[7] Institute of International Bankers (IIB), Global Survey (GS) 2004, p. 42

[8] http://www.apra.gov.au/adi/

[9] Global Risk Regulator, Volume 2, Issue 9, October 2004

[10] IIB GS 2004, p. 45

[11] "Challenges for Basel II Implementation in Chile", Enrique Marshall, September 2004, http://www.sbif.cl/sbifweb/internet/archivos/publicacion_2241.pdf

[12] IIB GS 2004, p. 57

[13] "Proposals for the Implementation of the New Basel Capital Adequacy Standards (Basel II) in Hong Kong", August 2004, http://www.info.gov.hk/hkma/eng/basel2/Consultation_04.pdf

[14] "Asia-Pacific Basel II Survey", Ernst&Young, Hong Kong, 20 December 2004, http://www.ey.com/global/download.nsf/China_E/Asia_Basel_-_Presentation/$file/Basel%20II%20survey-Presentation%20slides%20(for%20pc).pdf

[15] "Asian Banks and Basel II" Fitch Ratings Special Report, 19 January, 2005

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[17] Comments of the Reserve Bank of India on the New Basel Capital Accords, May 31, 2001, http://www.rbi.org.in/index.dll/21113?OpenStory?fromdate=05/31/01&todate=05/31/01&s1secid=0&s2secid=0&secid=7/0/0&archivemode=0

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