

Basel norms in india critical analysis

[Countries](#), [India](#)



Challenges In India ever since its introduction in 1988, capital adequacy ratio has become an important benchmark to assess the financial strength and soundness of banks. It has been successful in enhancing competitive equality by ensuring level playing field for banks of different nationality. A survey conducted for 129 countries participating in the ninth International Conference of Banking Supervision showed that in 1996, more than 90% of the 129 countries applied Basel-like risk weighted capital adequacy requirement. Reserve Bank of India introduced risk assets ratio system as a capital adequacy measure in 1992, in line with the capital measurement system introduced by the Basel Committee in 1988, which takes into account the risk element in various types of funded balance sheet items as well as non-funded off-balance sheet exposures.

Capital adequacy ratio is calculated on the basis of various degrees of risk weights attributed to different types of assets. As per current RBI guidelines, Indian banks are required to achieve capital adequacy ratio of 9% (as against the Basel Committee stipulation of 8%). E Swapan Bakshi Implementation of Basel II has been described as a long journey rather than a destination by itself. RBI has decided to follow a consultative process while implementing Basel II norms and move in a gradual, sequential and co-ordinated manner. BASEL CAPITAL ACCORD However, the present accord has been criticized as being inflexible due to focus on primarily credit risk and treating all types of borrowers under one risk category irrespective of credit rating. The major criticism against the existing accord stems from its ? Broad-brush approach - irrespective of quality of counter party or credit ? Encouraging regulatory arbitrage by cherry picking ? Lack of incentives for credit risk mitigation

techniques ? Not covering operational risk Moreover, years have passed since the introduction of the present accord. The business of banking, risk management practices, supervisory approaches and financial markets have undergone significant transformation since then.

Therefore, the Basel Committee on Banking Supervision thought it desirable that the present accord is replaced by a more risk-sensitive framework. The new accord aims to overcome the anomalies of the present system. It emphasizes on bank's own internal methodologies, supervisory review and market discipline. (The author is a member of the Institute. He can be reached at co. in THE CHARTERED ACCOUNTANT 426 OCTOBER 2004 BASEL II The new proposal is based on three mutually reinforcing pillars that allow banks and supervisors to evaluate properly the various risks that banks face and realign regulatory capital more closely with underlying risks.

Each of these three pillars has risk mitigation as its central plank. The new risk sensitive approach seeks to strengthen the safety and soundness of the industry by focussing on: ? ? more elaborate than the current accord. It proposes, for the first time, a measure for operational risk, while the market risk measure remains unchanged. The new proposal is based on three mutually reinforcing pillars that allow banks and supervisors to evaluate properly the various risks that banks face and realign regulatory capital more closelyThe Second Pillar with underlying risks. - Supervisory Review Process Supervisory review process has been introduced to ensure not only that banks have adequate capital to support all the risks, but also to encourage

them to develop and use better risk management techniques in monitoring and managing their risks. Pillar III The process has Market four key principles a) Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for monitoring their capital levels. b) Supervisors should review and evaluate bank's internal capital adequacy assessment and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. c) 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. d) Supervisors should seek to intervene at an early stage to prevent capital from falling below minimum level and should require rapid remedial action if capital is not maintained or restored.

Risk based capital (Pillar 1) Risk based supervision (Pillar 2) Risk disclosure to enforce market discipline (Pillar 3) Basel II Framework Pillar I Minimum Capital Requirements Pillar II Supervisory Review Process The First Pillar - Minimum Capital Requirements The first pillar sets out minimum capital requirement. The new framework maintains minimum capital requirement of 8% of risk assets. Under the new accord capital adequacy ratio will be measured as under—

$$\text{Total capital (unchanged)} = (\text{Tier I} + \text{Tier II} + \text{Tier III}) / \text{Risk Weighted Assets} = \text{Credit risk} + \text{Market risk} + \text{Operational risk}$$

(Tier III capital has not yet been introduced in India.) Basel II focuses on improvement in measurement of risks. The revised credit risk measurement methods are The Third Pillar - Market Discipline Market discipline imposes strong incentives to banks to conduct their business in a safe, sound and effective manner.

It is proposed to be effected through a series of disclosure requirements on capital, risk exposure etc. so that market participants can assess a bank's capital adequacy. These disclosures should be made at least semi-annually and more frequently if appropriate. Qualitative disclosures such as risk management objectives and policies, definitions etc. may be published annually.

THE CHARTERED ACCOUNTANT 427 OCTOBER 2004 BASEL II

Timeframe for Implementation The Basel Committee first released the proposal to replace the 1988 Accord with a more risk sensitive framework in June 1999, on which more than 200 comments were received. Reflecting on those comments the Committee presented a more concrete proposal in January 2001 seeking more comments from interested parties.

The third consultative paper was released in April 2003. Furthermore Credit the Committee conducted three Assessment quantitative impact studies to assess the impact of the new proposals. Sovereign (Govt. Thereafter, the final version of the & Central Bank) New Accord has been published on Claims on Banks June 26, 2004, which is designed to Option 1 establish minimum level of capital for internationally active banks. The Option 2a new framework is to be made Option 2b applicable from 2006 end. The more advanced approaches will be impleCorporates mented by the end of year 2007.

COMPUTATION OF CAPITAL REQUIREMENT Capital Requirement for Credit Risk: The New Accord provided for the following alternative methods for computing capital requirement for credit risk Credit Risk - The Standardized Approach: The standardized approach is conceptually the same as the present accord, but is more risk sensitive.

The bank allocates a risk weight to each of its assets and off-balance sheet positions and produces a sum of riskweighted asset values. A risk weight of 100% means that an exposure is included in the calculation of risk weighted assets value, which translates into a capital Credit Risk charge equal to 9% of that value. Individual risk weight currently depends on the broad category of borrower (i. e. sovereign, banks or corporates). Under the new accord, the risk weights are to be refined by reference to a rating provided by an external credit assessment institution (such as rating agency) that meets strict standards. Proposed Risk Weight Table

AAA to A+	10%	20%	50%	BBB+	10%	AAA-	20%	BBB0	20%	BB+	10%	BB-	10%	BB0	10%	BB1	10%	BB2	10%	BB3	10%	BB4	10%	BB5	10%	BB6	10%	BB7	10%	BB8	10%	BB9	10%	BB10	10%	BB11	10%	BB12	10%	BB13	10%	BB14	10%	BB15	10%	BB16	10%	BB17	10%	BB18	10%	BB19	10%	BB20	10%	BB21	10%	BB22	10%	BB23	10%	BB24	10%	BB25	10%	BB26	10%	BB27	10%	BB28	10%	BB29	10%	BB30	10%	BB31	10%	BB32	10%	BB33	10%	BB34	10%	BB35	10%	BB36	10%	BB37	10%	BB38	10%	BB39	10%	BB40	10%	BB41	10%	BB42	10%	BB43	10%	BB44	10%	BB45	10%	BB46	10%	BB47	10%	BB48	10%	BB49	10%	BB50	10%	BB51	10%	BB52	10%	BB53	10%	BB54	10%	BB55	10%	BB56	10%	BB57	10%	BB58	10%	BB59	10%	BB60	10%	BB61	10%	BB62	10%	BB63	10%	BB64	10%	BB65	10%	BB66	10%	BB67	10%	BB68	10%	BB69	10%	BB70	10%	BB71	10%	BB72	10%	BB73	10%	BB74	10%	BB75	10%	BB76	10%	BB77	10%	BB78	10%	BB79	10%	BB80	10%	BB81	10%	BB82	10%	BB83	10%	BB84	10%	BB85	10%	BB86	10%	BB87	10%	BB88	10%	BB89	10%	BB90	10%	BB91	10%	BB92	10%	BB93	10%	BB94	10%	BB95	10%	BB96	10%	BB97	10%	BB98	10%	BB99	10%	BB100	10%
-----------	-----	-----	-----	------	-----	------	-----	------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	-------	-----

Option 1 = Risk weights based on risk weight of the country
 Option 2a = Risk weight based on assessment of individual bank
 Option 2b = Risk weight based on assessment of individual banks with claims of original maturity of less than 6 months.

Retail Portfolio (subject to qualifying criteria) 75% Claims secured by residential property 35% Non-performing assets: If specific provision is less than 20% 150% If specific provision is more than 20% 100% The Committee has not proposed significant change in respect of off-balance Sheet items except for commitment to extend credit. The Internal Rating Based Approach (IRB): Under the IRB approach, banks will be allowed by the supervisors to use their internal estimates of risk components to assess credit risk in their portfolios, subject to strict methodological and disclosure standards. A bank estimates each borrower's creditworthiness and the results are translated into estimates of a future potential loss amount, which form the basis of

minimum capital requirements. The risk components include measures of ? Standardized Approach Internal Rating Based approach Securitization Framework Foundation IRB Advanced IRB Probability of Default (PD), THE CHARTERED ACCOUNTANT 428 OCTOBER 2004 BASEL II ? ? ? Loss Given Default (LGD), Exposure At Default (EAD) and Effective Maturity (M) standardized approach under the securitization framework. Similarly, banks that have received approval to use IRB approach for the type of underlying exposure, must use the IRB approach for the securitization. The differences between foundation IRB and advanced IRB have been captured in the following table: Data Input Probability of Default Foundation IRB Provided by bank based on own estimates Capital Charge for Market Risk Although the Basel Committee issued " Amendment to the Capital Accord to incorporate Market Risks" in 1996, RBI as an interim measure, advised banks to assign an additional risk weight of 2.5% on the entire investment portfolio.

RBI feels that over the years, bank's ability to identify and measure market risk has improved and therefore, decided to assign explicit capital charge for market risk in a phased manner over a two year period as under -. Advanced IRB Provided by bank based on own estimates Provided by bank based on own estimates Provided by bank based on own estimates Provided by bank based on own estimates Loss Supervisory values set Given Default by the Committee Exposure at Default Effective Maturity Supervisory values set by the Committee Supervisory values set by the Committee Or At the national discretion, provided by bank - based on own estimates The IRB approach is based on measures of Unexpected Loss (UL) and Expected Loss (EL). While capital requirement provides for UL portion, EL component is taken care of

by provisioning. Securitization Framework: Banks must apply the securitization framework for determining regulatory capital requirement on exposure arising from securitization. Banks that apply the standardized approach to credit risk for the underlying exposure, must use the a. Banks would be required to maintain capital charge for market risk in respect of their trading book exposure (including derivatives) by March 2005. b.

Banks would be required to maintain capital charge for market risk in respect of securities under available for sale category by March 2006. Market Risk Approaches Market Risk Standardized Approach Internal Model Based approach Maturity Based Duration Based RBI has issued detailed guidelines for computation of capital charge on Market Risk in June 2004. The guidelines seek to address the issues involved in com- THE CHARTERED ACCOUNTANT 429 OCTOBER 2004 BASEL II putting capital charge for interest rate related instruments in the trading book, equities in the trading book and foreign exchange risk (including gold and precious metals) in both trading and banking book. Trading book will include: Securities included under the Held for Trading category Securities included under the Available for Sale category ? Open gold position limits ? Open foreign exchange position limits ? Trading position in derivatives and derivatives entered into for hedging trading book exposures. As per the guidelines, minimum capital requirement is expressed in terms of two separately calculated charges: a. Specific Risk and b. General Market Risk Specific Risk: Capital charge for specific risk is designed to protect against an adverse movement in price of an individual security due to factors related to individual issuer.

This is similar to credit risk. The specific risk charges are divided into various categories such as investments in Govt securities, claims on Banks, investments in mortgage backed securities, securitized papers etc. and capital charge for each category specified. General Market Risk: Capital charge for general market risk is designed to capture the risk of loss arising from changes in market interest rates. The Basel Committee suggested two broad methodologies for computation of capital charge for market risk, i. e. , Standardized Method and Internal Risk Management Model Method.

As Banks in India are still in a nascent stage of developing internal risk management models, in the guidelines, it is proposed that to start with, the Banks may adopt the Standardized Method. Again, under Standardized Method, there are two principle methods for measuring market risk - maturity method and duration method. As duration method is a more accurate method of measuring interest rate risk, RBI prefers that Banks measure all of their general market risk by calculating the price sensitivity (modified duration) of each position separately. For this purpose detailed mechanics to be followed, time bands, assumed changes in yield etc. have been provided by RBI. Capital Charge for Equities: Capital charge for specific risk will be 9% of the Bank's gross equity position. The general market risk charge will also be 9%.

Thus the Bank will have to maintain capital equal to 18% of investment in equities (twice the present minimum requirement). Capital Charge for Foreign Exchange Risk: ? ? Foreign exchange open position and gold open position are at present risk weighted at 100%. Capital charge for foreign

exchange and gold open position would continue to be computed at 9% as hitherto. Risk Aggregation: The capital charge for specific risk, general market risk and equity and forex position will be added up and the resultant figure will be multiplied by 11.11 (inverse of 9%) to arrive at the notional risk weighted assets. Capital Charge for Operational Risk The Basel Committee has defined the Operational Risk as “ the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events”. This definition includes legal risk but excludes strategic and reputational risk.

The objective of the operational risk management is to reduce the expected operational losses using a set of key risk indicators to measure and control risk on continuous basis and provide risk capital on operational risk for ensuring financial soundness of the Bank. Operational Risk Approaches

Operational Risk

Basic Indicator Approach	Standardized Approach	Advanced Measurement Approach
Basic Indicator Approach	Basic Indicator Approach	Basic Indicator Approach

Under the basic indicator approach, Banks are required to hold capital for operational risk equal to the average over the previous three years of a fixed percentage (15% - denoted as alpha) of annual gross income. Gross income is defined as net interest income plus net non-interest income, excluding realized profit/losses from the sale of securities in the banking book and extraordinary and irregular items. Standardized Approach Under the standardized approach, bank's activities are divided into eight business lines. Within each business line, gross income is considered as a broad indicator for the likely scale of operational risk. Capital charge for each business line is calculated by multiplying gross income by a factor (denoted beta) assigned to THE

CHARTERED ACCOUNTANT 430 OCTOBER 2004 BASEL II This partly explains the current trend of consolidation in the banking industry. Profitability: Competition among banks for highly rated corporates needing lower amount of capital may exert pressure on already thinning interest spread.

Further, huge implementation cost may also impact profitability for smaller banks. Risk Management Architecture: The new standards are an amalgam of international best practices and calls for introduction of advanced risk management system with wider application throughout the organization. It would be a daunting task to create the required level of technological architecture and human skill across the institution. Rating Requirement: Although there are a few credit rating agencies in India - the level of rating penetration is very low. A study revealed that in 1999, out of 9640 borrowers enjoying fund-based working capital facilities from banks - only 300 were rated by major agencies. Further, rating is a lagging indicator of the credit risk and the agencies have poor track record in this respect. There is a possibility of rating blackmail through unsolicited rating.

Moreover rating in India is restricted to issues and not issuers. Encouraging rating of issuers would be a challenge. Choice of Alternative Approaches: The new framework provides for alternative approaches for computation of capital requirement of various risks. However, competitive advantage of IRB approach may lead to domination of this approach among big banks. Banks adopting IRB approach will be more sensitive than those adopting standardized approach. This may result in high-risk assets flowing to banks on standardized approach - as they would require lesser capital for these

assets than banks on IRB approach. Hence, the system as a whole may maintain lower capital than warranted and become more vulnerable.

It is to be considered whether in our quest for perfect standards, we have lost the only universally accepted standard. Absence of Historical Database: Computation of probability of default, loss given default, migration mapping and supervisory validation require creation of historical database, which is a time consuming process and may require initial support from the supervisor.

Incentive to Remain Unrated: In case of unrated sovereigns, banks and corporates the prescribed risk weight is 100%, whereas in case of those entities with lowest rating, the risk weight is 150%. This may create incentive for the category of counterparties, which anticipate lower rating to remain unrated. Supervisory Framework: Implementation of The final version of the New Accord has been published on June 26, 2004, which is designed to establish minimum level of capital for internationally active banks. The new framework is to be made applicable from 2006 end. The more advanced approaches will be implemented by the end of year 2007.

that business line. Total capital charge is calculated as the three-year average of the simple summations of the regulatory capital across each of the business line in each year. The values of the betas prescribed for each business line are as under:

Business Line	Beta Factor
Corporate finance	18%
Trading and sales	18%
Retail banking	12%
Commercial banking	15%
Payment and settlement	18%
Agency services	15%
Asset management	12%
Retail brokerage	12%

Advanced Measurement Approach Under advanced measurement approach, the regulatory capital will be equal to the risk

measures generated by the bank's internal risk measurement system using the prescribed quantitative and qualitative criteria. ISSUES AND CHALLENGES While there is no second opinion regarding the purpose, necessity and usefulness of the proposed new accord - the techniques and methods suggested in the consultative document would pose considerable implementational challenges for the banks especially in a developing country like India. Capital Requirement: The new norms will almost invariably increase capital requirement in all banks across the board. Although capital requirement for credit risk may go down due to adoption of more risk sensitive models - such advantage will be more than offset by additional capital charge for operational risk and increased capital requirement for market risk. THE CHARTERED ACCOUNTANT 431 OCTOBER 2004 BASEL II Basel II norms will prove a challenging task for the bank supervisors as well. Given the paucity of supervisory resources - there is a need to reorient the resource deployment strategy. Supervisory cadre has to be properly trained for understanding of critical issues for risk profiling of supervised entities and validating and guiding development of complex IRB models. Corporate Governance Issues: Basel II proposals underscore the interaction between sound risk management practices and corporate good governance. The bank's board of directors has the responsibility for setting the basic tolerance levels for various types of risk. It should also ensure that management establishes a framework for assessing the risks, develop a system to relate risk to the bank's capital levels and establish a method for monitoring compliance with internal policies. National Discretion: Basel II norms set out a number of areas where national supervisor will need to determine the

specific definitions, approaches or thresholds that wish to adopt in implementing the proposals. The criteria used by supervisors in making these determinations should draw upon domestic market practice and experience and be consistent with the objectives of Basel II norms.

Disclosure Regime: Pillar 3 purports to enforce market discipline through stricter disclosure requirement. While admitting that such disclosure may be useful for supervisory authorities and rating agencies - the expertise and ability of the general public to comprehend and interpret disclosed information is open to question. Moreover, too much disclosure may cause information overload and may even damage financial position of bank.

Disadvantage for Smaller Banks: The new framework is very complex and difficult to understand. It calls for revamping the entire management information system and allocation of substantial resources. Therefore, it may be out of reach for many smaller banks. As Moody's Investors Services puts it, " It is unlikely that these banks will have the financial resources, intellectual capital, skills and large scale commitment that larger competitors have to build sophisticated systems to allocate regulatory capital optimally for both credit and operational risks.

Discriminatory against Developing Countries: Developing countries have high concentration of lower rated borrowers. The calibration of IRB has lesser incentives to lend to such borrowers. This, alongwith withdrawal of uniform risk weight of 0% on sovereign claims may result in overall reduction in lending by internationally active banks in developing countries and increase their cost of borrowing. Although the Basel Committee issued " Amendment

to the Capital Accord to incorporate Market Risks" in 1996, RBI as an interim measure, advised banks to assign an additional risk weight of 2.5% on the entire investment portfolio. External and Internal Auditors: The working Group set up by the Basel Committee to look into implementational issues observed that supervisors may wish to involve third parties, such as external auditors, internal auditors and consultants to assist them carrying out some of the duties under Basel II. The precondition is that there should be a suitably developed national accounting and auditing standards and framework, which are in line with the best international practices.

A minimum qualifying criteria for firms should be those that have a dedicated financial services or banking division that is properly researched and have proven ability to respond to training and upgrades required of its own staff to complete the tasks adequately. With the implementation of the new framework, internal auditors may become increasingly involved in various processes, including validation and of the accuracy of the data inputs, review of activities performed by credit functions and assessment of a bank's capital assessment process. CONCLUSION Implementation of Basel II has been described as a long journey rather than a destination by itself. Undoubtedly, it would require commitment of substantial capital and human resources on the part of both banks and the supervisors. RBI has decided to follow a consultative process while implementing Basel II norms and move in a gradual, sequential and co-ordinated manner. For this purpose, dialogue has already been initiated with the stakeholders. As envisaged by the Basel Committee, the accounting profession too, will make a positive contribution in this respect to make Indian banking system stronger.

! THE CHARTERED ACCOUNTANT 432 OCTOBER 2004