



# INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE AND MANAGEMENT

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**AN OVERVIEW AND IMPLICATIONS OF BASEL I AND BASEL II****PROF. PRADEEP AGGARWAL**DEPARTMENT OF MANAGEMENT STUDIES  
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NEW DELHI – 110 068**ABSTRACT**

*This paper presents an analytical review of the capital adequacy regime and the present state of capital of risk –weighted assets ratio (CRAR) of banking sector in India. In current regime of Basel I, Indian banking system is performing reasonably well, with an average CRAR of about 12 per cent, which is higher than internationally accepted level of 8 per cent as well as India's own minimum regulatory requirement of 9 per cent. In this paper focus is given on one particular prudential regulation, i.e. capital adequacy requirement in the banking sector in India. Capital adequacy is an indicator of the financial health of the banking system. It is measured by the capital to Risk – weighted Assets Ratio(CRAR), defined as the ratio of bank's capital to its total risk weighted assets. As the revised capital adequacy norms, Basel II, are being implemented from March 2008, several issues emerge. It examines these issues from the Indian perspectives. This paper presents an analytical review of the current capital adequacy norms in India's system vis-à-vis the Basel framework. This paper also attempts to examine issue and challenges with regard to implementation of CRAR norms under Basel II regime in India. The paper tries to identify limitations, gaps and inadequacies in the Indian banking system which may hamper the realization of the potential benefits of the new regime will be adequately compensated by an improvement in the system.*

**KEY WORDS**

Capital Adequacy Ratio, Basel I, Basel II, Reserve Bank of India, SMEs lending

**INTRODUCTION**

In its report submitted to Government of India in December 1991, the Narasimhan Committee on Financial System suggested several reforms measures of India's financial system. The Committee recommended gradual liberalization of the banking sector by adopting measures such as reduction of statutory preemptions, deregulation of interest rates and allowing foreign and domestic private banks to enter the system. Along with these, the Committee also recommended adoption of prudential regulation relating to capital adequacy, income recognition, assets classification and provisioning standards. While the liberalization was aimed at bringing about competition and efficiency into India's banking system, the prudential regulation was aimed at strengthening the supervisory system, which is important in the process of liberalization. Financial regulators generally impose a capital adequacy norm on their banking and financial system in order provide for a buffer to absorb unforeseen losses due to risky investments. A well adhered to capital adequacy regime does play an important role in minimizing the cascading effects of banking and financial sector crises. The Narasimhan Committee endorsed the internationally accepted norms for capital adequacy standards, developed by the Basel Committee on the Banking Supervision (BCBS). BCBS initiated Basel I norms in 1988, considered to be the first move towards risk weighted capital adequacy norms. In 1996 BCBS amended the Basel I norms and in 1999 it initiated a completed revision of the Basel I framework, to be known as Basel II. In pursuance of the Narasimhan Committee recommendations, India adopted Basel I norms for commercial banks in 1992, the market risk amendment of Basel I in 1996 and has committed to implement the revised norms, the Basel II, from March 2008.

**PROGRESS OF INTERNATIONAL CAPITAL ADEQUACY NORMS**

The international financial community has witnessed several significant developments in the area of risk management and banking supervision over the last two decades. In 1988, BCBS introduced risk - based capital adequacy norms through Basel I accord (BCBS1988). Basel I mainly incorporated credit risk in calculating the capital adequacy norms of banks. It recommended a bank's regulatory capital at 8 percent of its risk – weighted assets, where assets were risk – weighted according to their credit risk. In 1996, an amendment was made to Basel I to incorporate

market risk in addition to credit in the weighing scheme (BCBS 1996). In July 1999, BCBS initiated the process of replacing the current framework with a revised version, the Basel II. After several rounds of discussions, consultations and deliberations within the global financial and banking institutions, Basel II has evolved as revised and comprehensive framework for prudential regulations to replace the current Basel I framework. In 2007, more than 100 countries are following Basel I norms. As far as Basel II is concerned, a survey by Financial Stability Institute (FSI) of the Bank for International Settlement in 2006 revealed that 95 countries intended to adopt Basel II, in some form or the other, by 2015. Out of these countries, the 13 BCBS member countries have initiated Basel II implementation process in 2007.

## AN OVERVIEW OF BASEL I, MARKET RISK AMENDMENT OF BASEL I AND BASEL II

### Basel I

Basel I is a framework for calculating 'Capital to Risk-weighted Assets Ratio' (CRAR). It defines a bank's capital as two types: core (or tier I) capital comprising equity capital and disclose reserves; and supplementary (or tier II) capital comprising items such as undisclosed reserves, revaluation reserves, general provisions/general loan-loss reserves, hybrid debt capital instruments and subordinated term debt. Under Basel I, at least 50 per cent of a bank's capital base should consist of core capital. In order to calculate CRAR, the bank's assets should be weighted by five categories of credit risk – 0, 10, 20, 50 and 100 percent. For example, if it an asset is in the form of cash or claim on central governments, it will get a risk weight of zero, if it is in the form of a claim on domestic public sector entities, then it will get a risk weight of 10, 20 or 50 per cent at the discretion of the national supervisory authority. Claims on private sector will get a risk weight of 100 percent. Table A1 in the Appendix provides the risk weights for different asset classes under Basel I.

### Market Risk Amendment

In 1996, an amendment was made to Basel I to incorporate market risk, in addition to credit risk, in the calculation of CRAR. To measure market risk, banks were given the choice of two options:

A standardized approach using a building block methodology

An 'in-house' approach allowing banks to develop their own proprietary models to calculate capital charge for market risk by using the notion of Value-at-Risk (VaR)

These approaches, however, calculated the capital charges for market risk and not the risk-weighted asset. Therefore, this measure of capital charges would have to be multiplied by a factor 12.5 (reciprocal of 8 per cent, the minimum regulatory capital adequacy ratio) and then added to the risk-weighted assets computed for credit risk. In the calculation of CRAR, the numerator will be the sum of the bank's tier I and tier II capital (tier II capital should be limited to a maximum of 100 per cent of tier I capital), plus a tier III capital introduced in the 1996 amendment to support market risk.

### Basel II

Basel II is a much more comprehensive framework of banking supervision. It not only deals with CRAR, calculation, but has also got provisions for supervisory review a market discipline. Thus, Basel II stands on three pillars:

Minimum regulatory capital (Pillar 1): This is a revised and extensive framework for capital adequacy standards, where CRAR is calculated by incorporation credit, market and operational risk.

Supervisory review (Pillar 2): This provides key principle for supervisory revise, risk management guidance and supervisory transparency and accountability.

Market discipline (Pillar 3): This pillar encourages market discipline by developing a set of disclosure requirements that will allow market participants to assess key piece of information on risk exposure, risk assessment process and capital adequacy of a bank.

### Minimum Regulatory Capital under Basel II

Under Basel II, CRAR is calculated by taking into account three types of risks: credit risk, market risk and operational risk. The approaches for each one of these risks is described below.

### Credit risk

There are two approaches for credit risk. Viz., the Standardized Approach (SA) and the Internal Ratings Based (IRB) approach. In SA, credit risk is measured in the same manner as in Basel I, but in a more risk sensitive manner, i.e. by linking credit ratings of credit rating agencies to risk of the assets of the bank. This, according to BCBS I an improvement over Basel I, where categorization of the assets into five risk-weight categories was an ad hoc categorization. BCBS has provided an example of how risk weights can be linked with the credit ratings. The responsibility of providing the risk-weights corresponding to various assets. Under SA. Lies with the supervisory authority of a country. As far as the IRB approach is concerned, banks will be allowed to use their internal estimates of credit risk, subject to supervisory approval, to determine the capital charge for a given exposure. This would involve estimation of several parameters such as the probability of default (PD), loss given default (LGD), exposure at default (EAD) and effective maturity (M) corresponding to a particular debt portfolio.

### Market risk

As far as market risk is concerned, Basel II retains the recommendations risk in calculating CRAR. It is defined as "the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events." In order to calculate the capital charges for operational risk, three approaches – Basic Indicator Approach (BIA), standardized Approach (SA) and Advanced Measurement Approach (AMA) – have been suggested. In the BIA, an estimate of the capital charge for operational risk is provided by averaging over a fixed percentage of positive annual gross income of the bank over the previous three years. In this estimate, negative incomes are excluded. Under SA, at first the bank's business activities are divided into eight business lines. For each business line, a capital charge is calculated by multiplying the gross income of the business line by a factor. A capital charge is calculated as the three-year. Under AMA, a bank can, subject to supervisory approval, use its own mechanism for determining capital requirement for operational risk.



### Capital adequacy standard in India

In India, at present, there is a 'three track' approach for Basel compliance - the commercial banks are Basel I compliant with respect to credit and market risk: the urban cooperative banks maintain for credit risk as per Basel I and market risk through surrogate charges; and the rural banks have capital adequacy norms that are not on par with the Basel norms (Leeladhar 2006). The three track approach is justified by the necessity to maintain varying degree of stringency across different types of banks in India reflecting different levels of operational complexity and risk appetite. The three track approach is also justified in order to ensure greater financial inclusion and for an efficient credit delivery mechanism (Reddy 2006). India adopted Basel I norms for scheduled commercial banks in April 1992, and its implement was spread over the next three years. It was stipulated that foreign banks operating in India should achieve a CRAR of 8 per cent by March 2006 while Indian banks with branches abroad should achieve the 8 percent by March 2008. All other banks were to achieve a capital adequacy norm of 4 percent by March 1993 and 8 per cent norm by March 1996. In its mid-term review of Monetary and Credit Policy in October 1998, the Reserve bank of India (RBI) raised the minimum regulatory CRAR requirement to 9 percent, and banks were advised to achieve this 9 per cent CRAR level by March 31, 2009. Thus, the capital adequacy norm for India's commercial banks is higher than the internationally accepted level of 8 per cent. The RBI has announced the implementation of Basel II norms in India for internationally active banks from March 2008 and for the domestic commercial banks from March 2009. Before we go into details of several issues facing the banking industry in India in the wake of Basel II, we briefly describe the current the current state of affairs with respect to capital adequacy of India's banking industry.

### The present state of capital standards for commercial banks in India

The scheduled commercial banks in India are categorized into the following groups: nationalized banks, other public sector banks, State Bank of India (SBI) group, Indian private banks (further categorized as old private banks and new private banks) and foreign banks. Sometimes the first two categories are clubbed together as there is only one bank in the category 'other public sector bank' the Industrial Development Bank of India (IDBI) bank. The first three were altogether 84 banks operating in India, consisting of 20 nationalized banks (including IDBI bank), 8 banks in SBI group, 19 old private banks, 8 new private bank and 29 foreign banks. The ratio of total assets of the commercial banks to the GDP of India stood at 86.9 per cent at end-March 2009. At the end of March 2009, the share of public sector banks in the total banking assets of the country stood at 72.3 per cent. Old and new private banks together constituted about 20 per cent, while foreign banks accounted for 7.2 per cent of the total banking assets of India in March 2009. Table I provides yearly frequency distribution of different bank groups by their CRAR levels for the period 2000-2009. As shown in the table, by the end of March 1997, all but 2 nationalized banks and 4 private banks were short of meeting the capital adequacy norm. The SBI group and the foreign banks had achieved the minimum regulatory norm by March 1997. Although a few banks were having negative CRAR during 2000-02, all banks achieved the minimum regulatory level by 2009. As shown in Table I, majority of the banks in all bank categories have achieved a CRAR level of more than 10 per cent by March 2009, indicating good financial health of the banking industry, in terms of capital adequacy norm, over the recent years. The average level of CRAR for the Indian banking groups for the period 2000-2009 is presented in Table 2. As shown by this table, the average CRAR level for the banking industry has stood consistently between 11 and 12 per cent during 2000-2009, which is much higher than the current minimum regulatory requirement of 9 per cent and the international minimum requirement of 8 per cent. As seen from Table 2, overall CRAR for the banking system has marginally declined since 2005. Between 2004 and 2005, the overall CRAR declined by 0.1 percentage points and between 2005 and 2006, this decline was by 0.5 percentage points. Bank group wise, between 2004 and 2005, 'old private banks' recorded the highest decline of 1.2 percentage points in CRAR followed by a 1 percentage point fall for SBI group and the foreign bank group each. The 'new Private Banks' recorded a rise of 1.9 percentage points in CRAR and the nationalized banks recorded a rise of 0.1 percentage points. The net result was a marginal decline in CRAR for the banking system as a whole. RBI attributed this decline to the increase in total risk-weighted assets relative to the capital, for the first time since March 2000 (RBI 2005b). The increase in risk-weighted assets was due to a higher growth in the loan portfolio of banks and higher risk weights made applicable for housing loans, the most rapidly increasing component of retail loans for banks. Following a similar pattern, CRAR levels for all but one banking group recorded a decline between 2005 and 2006. The highest decline of 1 percentage point was observed for 'foreign banks', followed by a decline by 0.8 percentage point for 'nationalized' and 'old private banks', 0.7 percentage points for 'other public sector bank' (IDBI being the sole member of this group) and a decline by 0.5 percentage points for the SBI group. During this period 'new private banks' showed a rise of 0.5 percentage point in CRAR. The resultant change in CRAR for the banking system as a whole was a decline of 0.5 percentage points. This overall decline in CRAR could be attributed to three factors – (i) higher growth in loan portfolio of banks as compared to investment in government securities, (ii) increase in risk weights for personal loans, real estate and capital market exposure, and (iii) application of VaR-based capital charge for market risk for investment held under 'held for trade' and 'available for sale' portfolios (RBI 2006).

### International comparison

Table 3 provides a comparative picture of the capital adequacy ratios of different countries vis-à-vis India's. As shown by this table, CRAR of India banking system compares well with many emerging countries such as Korea, Malaysia and South Africa. Countries such as Brazil, Indonesia, Hong Kong, Singapore and Thailand have higher CRAR level than India in 2005 while Japan, Taiwan, the United States and the neighbouring countries of Bangladesh and Sri Lanka have lower CRAR levels than India. In 2005, China's banking system had a CRAR level of less than 8 per cent. According to the official website of the Chinese Government, 74 per cent of China's total banking assets could meet the 8 per cent level in 2009, compared with 0.56 per cent in 2003 when only eight banks complies. Thus, when compared with China, India is at a much better position with respect to capital adequacy.

Table 1: Distribution of Indian banks by CRAR (2000-2009)

Table 1: Distribution of Mutual Funds by Size (1999-2000)									(Unit: Nos.)
Level	<4%	4% -MRR	MRR – 10%	>10%	<4%	4% - MRR	MRR – 10%	> 10%	
Year	Nationalized banks				SBI group				
1999-00	2	-	6	11	-	-	3	5	
2000-01	1	-	6	12	-	-	1	7	

2001-02	1	-	4	14	-	-	-	8
2002-03	1	-	4	14	-	-	-	8
2003-04	1*	1	2	15	-	-	-	8
2004-05	1	1	2	15	-	-	-	8
2005-06	-	-	1	18	-	-	-	8
2006-07	-	-	1	18	-	-	-	8
2007-08	-	-	2	18	-	-	-	8
2008-09	-	-	-	20	-	-	-	8

*Year**Indian private banks (old and new)**Foreign banks*

1999-00	3	1	8	22	-	-	14	24
2000-01	2	2	8	22	-	-	12	30
2001-02	2	2	5	25	1	-	14	29
2002-03	2	2	3	25	-	-	5	37
2003-04	2*	1	5	23	-	-	4	38
2004-05	1*	1	3	25	1*	-	2	37
2005-06	2	-	3	25	-	-	-	36
2006-07	1	1	-	28	-	-	-	33
2007-08	1	1	5	22	-	-	1	30
2008-09	2	-	2	23	-	-	2	27

**Note:** 1) MRR is Minimum Regulatory Requirement (9% from 1999-00)

2) -indicates nil, \* indicates negative

**Source:** RBI, Reports on Trend and Progress of Banking in India, various issues**Table 2: Average CRAR level of Indian banking groups**

(Unit: Nos.)

Year (end March)	Nationalized banks	SBI group	Other public sector bank	Old Pvt. banks	New Pvt. banks	Foreign banks	All banks
1999	10.6	12.3	N.A.	12.1	11.8	10.8	11.3
2000	10.1	11.6	N.A.	12.4	13.4	11.9	11.1
2001	10.2	12.7	N.A.	11.9	11.5	12.6	11.4
2002	10.9	13.3	N.A.	12.5	12.3	12.9	12
2003	12.2	13.4	N.A.	12.8	11.3	15.2	12.7
2004	13.1	13.4	N.A.	13.7	10.2	15	12.9
2005	13.2	12.4	15.51	12.5	12.1	14	12.8
2006	12.4	11.9	14.8	11.7	12.6	13	12.3

**Note:** n.a. implies not available**Source:** RBI, Report on Trend and Progress of Banking in India, 2010**Table 3: CRAR level in select countries**

Country	2005	2006
Bangladesh	7.3	
Brazil	18.1	
China	8.5	
Hong Kong	14.9	15.2
India	12.8	12.3
Indonesia	19.5	
Japan	8.9	
Korea	13	13.1
Malaysia	13.6	12.8
Singapore	15.8	15.4
South Africa	13.3	
Sri Lanka	10.8	11.5
Taiwan	10.3	10.3

Thailand	14.2	14.7
US	10.3	

Source: Central Bank websites

**Implementation of Basel II: the Indian status**

The RBI announced in May 2004 that banks in India should examine the options available under Basel II for revised capital adequacy framework. In February 2005, RBI issues the first draft guidelines on Basel II implementations in which an initial target date for Basel II compliance was set for March 2007 for all commercial banks, excluding Local Area Banks (LABs) and Regional Rural Banks (RRBs). This deadline was, however, postponed to March 2008 for internationally active banks and March 2009 for cosmetic commercial banks in RBI's mid-year policy announcement of October 30, 2006. Although RBI and the commercial banks have been preparing for the revised capital adequacy framework since RBI's first intimidation on Basel II compliance, the complexity and intense data requirement of Basel II have brought about several challenges in its implementation. Given the limited preparation of the banking system for Basel II implementation, this postponement is not surprising. The final RBI guidelines on Basel II implementation were released on April 27, 2007. According to these guidelines, banks in India will initially adopt SA for credit risk and BIA for operational risk. RBI has provided the specifics of these approaches in its guidelines. After adequate skills are developed, both by banks and RBI. Under the revised regime of Basel II, Indian banks will be required to maintain a minimum CRAR.

**Basel II: Some issues, some challenges**

Scholars have drawn attention to certain shortcomings of the original Basel II guidelines, on the basis of which individual countries are expected to build their regulatory guidelines. In particular, many scholars have pointed out that linking credit rating to regulatory capital standards may have severed macro-economic implications. As the sovereign ratings of developing and emerging countries are not as high as the industrialized and the high income countries, this will have an unfavourable effect on the credit flows to developing and emerging economies. Empirical studies have pointed out that Basel II may significantly overestimate the risk of international lending to developing economies. Further, credit ratings are found to be pro-cyclical (Ferri et al. 1999, Monfort and Mulder 2000). Credit rating agencies upgrade sovereigns in times of sound market conditions and downgrade in turbulent times. This can potentially add to the dynamics of emerging market crisis. Bank and corporate ratings in emerging countries are linked to their sovereign rating. In times of crisis, when the need for credit may be imperative, credit flow may diminish due to downgrading of the sovereign (and therefore the bank and corporate) ratings by external rating agencies, leading to banking crisis, in addition to the currency/balance of payments crisis, what Kandinsky and Reinhart (1999) call 'twin crises'. This may have severe impact on the macro-economic stability. For example, Ferri et al. (2000) show that during the East Asian currency crisis of 1997-98, following Moody's down gradation of sovereign ratings for Indonesia, Korea and Thailand, the corporate ratings were also down gradation sharply in these countries, leading to a sharp fall in the international capital flows in the region. Interestingly, even when the sovereign ratings of Korea and Thailand were upgraded in 1999 following the macro-economic recovery, corporate rating continued to remain 'speculative grade'. Further, the study also found that in the short term, the rating of non-high income countries' banks are 3 more sensitive to change in their sovereign rating in a noticeably asymmetric manner, i.e. it is more sensitive for a sovereign downgrading than sovereign upgrading. Thus, incorporation of external credit rating into regulatory capital requirement may lead to serious macro – economic instability. While these concerns remain for the Indian economy in general, several issues specific to India's banking system also arise in the wake of new regime. In this section, we discuss the issue specific to banking system of India.

**RBI Risk – Weighting Scheme**

A look at the RBI's scheme of risk – weighting reveals certain shortcomings. First, RBI's scheme provides much less risk weights to exposures to scheduled commercial banks than exposures to other banks/financial institutions. To be more precise, exposure to scheduled commercial banks with current regulatory level of CRAR will attract a risk- weight of 20 per cent while exposure to non – scheduled banks/financial institutions with same level of CRAR will attract 100 per cent risk – weight. This is discriminatory not only against non – scheduled banks of sound financial health, but also against cooperative banks and micro finance institution that cater to large number of urban and rural poor in India. Second, RBI's scheme encourages borrowers to remain unrated rather than rated below a certain level. A rating of B- and below will have higher risk – weight of 150 percent, while an unrated entity will have a risk – weight of 100 per cent. If borrowers consequently choose to remain unrated, then they would receive a risk – weight of 100 per cent under Basel II which is same as under Basel I, thus leading to no significant improvement in the risk – weighted asset calculation.

**Issue on credit rating industry**

As the SA approach of credit risk is dependent on linking risk weights to credit rating of an external rating agency, credit rating are being institutionalized into the regulatory framework of banking supervision. This raises four important issues that need to be looked into. These are – the quality of credit rating in India, the level of penetration of credit rating, lack of issuer rating in India and last but not the least, the effect of the credit rating scheme on small and Medium Enterprises (SMEs) and Small Scale Industry (SSI) lending. In this section we elaborate each of them. The credit rating industry in India presently consists of four agencies: Credit Rating Information Services of India Limited (CRISIL), Investment Information and Credit Rating Agency of India (ICRA), Credit Analysis & Research Limited (CARE) and Fitch India. These agencies provide credit rating for different types of debt instrument of short and long terms of various corporations. Very recently, they have also commenced credit rating for SMEs. Apart from that ICRA and CARE also provide credit rating for issuers of debt instrument, including private companies, municipal bodies and State governments. Basel guidelines entrust the national banking supervisors with the responsibility to identify credit rating agencies as for assessing borrowers. RBI has recognized all four credit rating agencies as eligible for purpose of risk – weighting bank's claims for capital adequacy. Further, the following international rating agencies are recognized for risk – weighing claims on foreign entities: Fitch, moody's and Standard & Poor's (RBI 2007b). Further, RBI has recommended the use of only 'solicited' rating.

**Credit rating quality**

In previous studies, Raghunathan and Varma (1992; 1993) evaluated the rating published by CRISIL in India and found that CRISIL ratings not only do not adequately reflect the financial ratios of rated entity, but also are internally inconsistent. In these studies, CRISIL ratings were found to be liberal by international standards. For example, what CRISIL rated as AAA would usually receives a rating of BBB or lower by international

standards. Further, companies rated in same category by CRISIL reflected a wide variety of credit- worthless, implying the lack of discriminatory power of other rating vis- a-vis the credit- worthless of entities in the same rating category. The literature on credit rating identifies lack of 'unsolicited' rating as an important factor leading to poor quality of credit rating. In India all ratings are 'solicited', i.e. all ratings are paid for by the entity. This creates a conflict of interest on part of the rating agency since it is dependent on the fees of the rated entity for its business. Thus, credit rating industry in India is driven mostly by the rated entities. Under the present system, issuers of bond/debt instruments may go to any number of agencies for a rating of their bonds/debt instruments and have the right to accept or reject the rating. Further, the rating cannot be published unless accepted by issuer.

Thus, while RBI has recognized all four credit rating agencies as eligible for the purpose of capital adequacy norm, one is faced with lack of objective assessment of the quality of these agencies. The few available studies indicate poor track record of the credit rating quality in India. In addition to this, RBI's recommendation for use of only solicited rating causes some concern, owing to problem of moral hazard.

#### Low penetration of credit rating

The second important issue in India's credit rating industry is low penetration of credit rating in India. A study in 1999 revealed that out of 9,640 borrowers enjoying fund – based working capital facilities from banks, only 300 were rated by major agencies. As far individual investors are concerned, the level of confidence on credit rating in India is very low. In an all- India survey of investors preference in 1997, it was found that about 41.29 per cent of respondents (out of a total number of 2,189 respondents) of all income classes were not aware of any credit rating agency in India; and of those who were aware, about 66 percent had no or low confidence in the rating given by credit rating agencies (Gupta et al. 2001). The legitimacy brought about by Basel II for credit rating of borrowers will definitely increase the penetration of the industry. However, until such time, most loans will be given 100 percent risk weightage (since an unrated claim gets 100 percent weightage); thus leading to no significance improvement of Basel II over Basel I

#### Issuer rating

Presently credit rating in India is restricted to 'issues' (instruments) rather than to 'issuers'. Ratings to issuers become important as the loans by corporate bodies and SEEs are to be weighted as per their ratings. Of late agencies like ICRA and CARE have launched issuer rating for corporations, municipal bodies and the state government bodies. Further, all agencies, with direct support from the Government of India, have launched SMEs rating. Until such efforts pick up rapidly, issuers will be assigned 100 per cent weightage, leading to no improvement in the risk – sensitive calculation of the loans. Thus, in this account too, the implementation of Basel II would not lead to significant improvement over Basel II.

#### Effects on SMEs and SSI lending

Besides agriculture and other social sectors, Small Scale is treated as priority lending sector by RBI. SSI accounts for nearly 95 per cent of the total export and 7 percent of GDP of India, 40 percent of the total industrial production, 35 percent of total export and 7 per cent of GDP of India. In spite of its importance on Indian economy, SSI receives only about 10 percent of bank credit (Table A4 in Appendix). As banking reforms have progressed, credit to SSI has fallen. The SSI sector in India is so far out of reach the credit rating industry. Under the proposed Basel II norms, banks will be discouraged to lend to SSI that is not rated because a loan to unrated entity will attract 100 per cent risk – weight. Thus, bank lending to this sector may further go down. In a recent initiative to promote credit rating of SEMs including sector SSI, the Government of India had launched SEMs Rating agency (SMERA) in September 2005. It is a joint initiative of Small industries Development Bank of India (SIDBI), Dun and Bradstreet Information Services India (D & B), Credit Information Bureau India Limited (CIBIL) and 16 major banks in India. Apart from SMERA, other rating agencies have launched SEMs rating. As an incentive to get credit rating, Government of India currently provides a subsidy of 75 per cent of the rating fees to SMEs who get a rating. Net of this subsidy, the rating fees for SMEs with annual turnover of less than Rs. 50 lakh are as follows: Rs. 19,896 for a rating by CRISIL, Rs. 19,896 for a rating by ICRA, Rs. 7,400 for a rating by CARE and Rs. 22,141 for a rating by Fitch India. Without the subsidy, the fees are: Rs. 40,000 for CRISIL, Rs. 40,000 for ICRA Rs. 29,600 for CARE.

According to the Third all India Census of SSI conducted during 2001-02 by the Ministry of Micro, Small and Medium Enterprises, average output per unit of SSI in India in 2001-02 was about Rs. 4 lakh. Thus, with the subsidy, SSI units will have to spend 2-5 percent of their output as fees for credit rating. Without the subsidy, the percentage offers to output is in the range of 7-11 per cent. This additional cost of credit rating is bound to affect the economic viability of a large number of SSI units. While introduction of credit rating for the SMEs (including SSIs) may, in the long run, improve the accounting practices of the SSI, there is also a possibility that SMEs will continue to rely on the existing system of informal credit as formal credit is likely to become more expensive due to the credit rating requirement of Basel II.

#### OBSERVATION AND CONCLUDING REMARKS

In this article, attempt has been made to review the capital adequacy regime in India. In particular our focus is on the present state of capital to risk-weighted asset ratios of the banking sector. It was observed that with respect to the current regime of capital standards, the Basel I, India's banking industry is performing reasonably well, with an average CRAR of about 12 percent, which is not only higher the internationally acceptable level of 8 percent, but also higher than India's own regulatory requirement of 9 percent. The RBI has announced that the Indian banking sector should implement the revised capital adequacy norms, Basel II, by March 2008. Under the Basel II guidelines, the credit rating agencies will play a prominent role in determining regulatory risk capital. The main concerns are the unsatisfactory performance of the credit rating industry in India, the low credit rating penetration and the high costs of credit rating especially for SMEs. Further, the increased requirement of tier I capital, the high cost of implementation and requirement of extensive data and software for implementation of Basel II will, in our view, pose a major challenge in India's migration towards Basel II regime. It is argued that if these issues are not tackled up front, then the end result would be no different from the current Basel I norms, albeit at higher cost.

Despite these challenges, in a globalizing financial system, India will not be able to do away with recent international developments such as Basel II. In the long run, adherence to Basel II by Indian banks will result in improved accounting, risk management and supervisory principles that are internationally accepted best practices. While the Basel II regime provides the credit rating industry with an opportunity in terms of business expansion, it needs to be seen if the industry is able to perform in term of the key principles of objectivity, independence, transparency, disclosure, resources and credibility. We argue that solicited rating scheme is an implement towards this goal. Since development

of IT infrastructure is very crucial to Basel II implementation, India's growing IT industry is likely to benefit from the increased business opportunities in the long run. Processes such as data analysis, model building and model validation are likely to be outsourced to the BPO (Business Process Outsourcing) sector, increasing the role of by now mature BPO industry in India. Thus, in long run, adherence to Basel II regime is expected to benefit not only the banking industry, but also several other sectors of Indian economy, such as the credit rating industry, the IT industry and the BPO industry.

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