REPORT OF THE COMMITTEE ON DIFFERENTIAL PREMIUM SYSTEM FOR BANKS IN INDIA

DIC GC

DEPOSIT INSURANCE AND CREDIT GUARANTEE CORPORATION

SEPTEMBER 2015

CONTENTS

Committee on the Differential Premium System
for the Banks in India

September 07, 2015

Shri R. Gandhi
Chairman
Deposit Insurance and Credit
        Guarantee Corporation
Mumbai

Dear Sir,

Submission of Committee's Report

We have pleasure in submitting the Report of the Committee on Differential Premium System for Banks in India. On behalf of the members of the Committee, and on my personal behalf, I sincerely thank you for entrusting this responsibility to us.

With kind regards

Yours Sincerely

sd/-
Jasbir Singh
Chairman

sd/-	sd/-	sd/-	sd/-
Meena Hemachandra Member	Rajesh Mokashi Member	Suma Varma Member	Sudarshan Sen Member

sd/-	sd/-	sd/-	sd/-
Malvika Sinha Member	S. Rajagopal Member	A.R. Joshi Member	Sonjoy Sethee Member

sd/-
Jaya Mohanty
Secretary

List of Abbreviations

BVR	The National Association of German Cooperative Banks
CAMELS	Capital Adequacy, Asset Quality, Management, Earnings, Liquidity and Systems and Control
CAR	Capital Adequacy Ratio
CARE Ltd	Credit Analysis and Research Ltd
CCB	Capital Conservation Buffer
CDIC	Canada Deposit Insurance Corporation
CET1	Common Equity Capital 1
CFO	Chief Financial Officer
CGM	Chief General Manager
CRAM	Comprehensive Risk Assessment Module
CRAR	Capital to Risk Weighted Assets Ratio
CRR	Cash Reserve Ratio
CSRTRS	Composite Score of the Risk Based Premium Rating System
DBR	Department of Banking Regulation
DBS	Department of Banking Supervision
DCBR	Department of Cooperative Banking Regulation
DCBS	Department of Cooperative Banking Supervision
DGSs	Deposit Guarantee Schemes
DIA	Deposit Insurance Agency
DICGC	Deposit Insurance and Credit Guarantee Corporation
DIF	Deposit Insurance Fund
DPS	Differential Premium System
DSIBS	Domestic Systemically Important Banks
DSIM	Department of Statistics and Information Management
EU	European Union
FBs	Foreign Banks
FDIC	Federal Deposit Insurance Corporation
FOGAFIN	Colombian Deposit Insurance Agency
FSB	Financial Stability Board
FSU	Financial Stability Unit
GNPAs	Gross Nonperforming Assets
GoI	Government of India
HR	High Risk
IADI	International Association of Deposit Insurers
IMF	International Monetary Fund
IT	Information Technology
LABs	Local Area Banks
LR	Low Risk
MeR	Medium Risk
MIS	Management Information System
MoR	Moderate Risk
NABARD	National Bank for Agriculture and Rural Development
NB	Nationalised Banks
NIM	Net Interest Margin

NPA	Nonperforming Assets
PAT	Profit After tax
PCGM	Principal Chief General Manager
PIDM	Perbadanan Insurans Deposit Malaysia
PSBs	Public Sector Banks
PvtSBs	Private Sector Banks
RBI	Reserve Bank of India
RBP	Risk Based Premium
RoA	Return on Assets
RPs	Reward Points
RR	Reserve Ratio
RRBs	Regional Rural Banks
RWA	Risk Weighted Assets
SBIA	State Bank of India and Associates
SCBs	Scheduled Commercial Banks
SLR	Statutory Liquidity Ratio
TRAM	Trigger Ratio Adjustment Mechanism
UCBs	Urban Cooperative Banks

Chapter

1

Introductory

1.1 Deposit Insurance protects depositors against the loss of their deposits in case a deposit institution is not able to meet its obligation to the insured depositors. On the flip side, the parties to the deposit insurance viz. a bank and its insured depositors get an incentive to take more risk because the costs of risk, in whole or in part, are borne by others, generally a deposit insurance agency, `e.g.` Deposit Insuarance and Credit Guarantee Corporation (DICGC) in India. This behaviour of the parties is termed as *moral hazard.* The financial crisis of 2008 has, alongwith the other issues concerning regulation and supervision, brought the debate on the moral hazard aspect of Deposit Insurance back to the table. The IADI (International Association of Deposit Insurers) Core Principles for Effective Deposit Insurance Systems (2014) have elaborated in detail on this issue.

Flat rate versus Risk based premium

1.2 The Deposit Insurance Systems around the world have evolved over time by reforms adopted by various jurisdictions based on experience, international developments, guidance from supra national bodies like IMF, IADI and other environmnetal changes from time to time. These reforms also included efforts to reduce the moral hazard, for example, through limited coverage levels and scope; differential premium systems (DPSs); and timely intervention and resolution by the deposit insurer or other participants with such powers in the financial system safety-net. Most deposit insurance systems initially adopt an ex-ante flat-rate premium system because they are relatively simple to design, implement and administer. However, these systems were open to criticism in that they do not reflect the level of risk that banks pose to the deposit insurance system. Flat-rate premium systems have also been

viewed as being unfair as "low-risk" banks are required to pay the same premium as "higher-risk" banks. With no inbuilt incentive for "higher risk" banks to improve their risk profile, a flat rate system would accentuate the moral hazard problem. Therefore the primary objective of most differential premium systems has been to provide incentives for banks to avoid excessive risk taking, minimise moral hazard and introduce more fairness into the premium assessment process. Introducing fairness into the system bolsters industry support for deposit insurance.

1.3   Keeping this perspective in mind, there has been an increasing recognition among the deposit insurance agencies around the world about the need for introduction of a DPS based on the risk profile of banks, also often referred to as Risk Based Premium (RBP). Keeping in view the challenges involved in devising a rating model and other related issues, the IADI prepared a note detailing General Guidance for Developing Differential Premium Systems (2011) for the Deposit Insurance Agencies (DIAs), which intended to switchover to RBP.

1.4 The Federal Deposit Insurance Corporation (FIDC), US, made a beginning in 1993 by introducing RBP. Since then, 26 of the 75 member jurisdictions of the IADI have adopted risk-based premium as on December 31, 2013.

Risk Based Premium in India

1.5 In India, the commercial banks, Regional Rural Banks (RRBS), Local Area Banks (LABs) and co-operative banks are covered by deposit insurance with the premium being charged at a flat rate of 10 paisa for Rs. 100. Historically, deposit insurance claims on the DICGC have generally originated on account of failure of co-operative banks, as these institutions have been more susceptible to frequent failures due to a number of factors. It is worth mentioning that the last claim settled in respect of a commercial bank was way back in 2002. As a result, a perception of cross-subsidisation in operation of the deposit insurance system has gained currency.

1.6 DICGC Act 1961 enables the Corporation to charge the premium at different rates for different categories of the insured banks. Various Committees constituted by the Government of India, Reserve Bank of India (RBI) and DICGC in the past have made recommendations for the introduction of risk-based premium for banks. The Narasimham Committee Report on the Banking Sector Reforms (1998), while focusing on the structural issues, recommended introduction of risk based premium system in lieu of the flat rate premium system. This view was echoed by the Capoor Committee on 'Reforms in Deposit Insurance in India' (1999). The Committee on Credit Risk Model (2006) constituted by the DICGC also recommended the introduction of risk based premium, to begin with, for Scheduled Commercial Banks (SCBs) and Urban Co-operative Banks (UCBs). Notwithstanding the recommendations of these committees in the past, the implementation of risk-based premium could not be operationalised, *inter alia*, due to co-operative and regional rural banks (forming over 90 per cent of insured banks) being under restructuring until recently, absence of robust supervisory rating for all insured banks especially co-operative banks, etc.

1.7 In India, there has been a persistent demand from stakeholders and public representatives in the recent past for a hike in deposit insurance cover from the current level of Rs.0.1 million. A hike in cover without calibrating the premium rates to the risk profile of the insured banks only exacerbates the moral hazard. Recognising this, it has been felt that introduction of RBP may be taken up to make ground for considering raising the insurance cover from the present ceiling of Rs 0.1 million.

1.8 Accordingly, a Committee on Differential Premium System for Banks in India (Chairman: Shri Jasbir Singh) was constituted vide Notification dated 31 March 2015 (copy annexed) to make recommendations for the introduction of risk based premium in India.

Composition of the Committee

1.9 The Composition of the Committee was as follows:

1. Shri Jasbir Singh	Executive Director	Chairperson
2. Smt. Meena Hemachandra	Executive Director, Reserve Bank of India	Member
3. Shri. Rajesh Mokashi	Deputy Managing Director, CARE Ratings	Member
4. Smt. Suma Varma	PCGM, DCBR	Member
5. Shri. Sudarshan Sen	PCGM, DBR	Member
6. Smt. Malvika Sinha	PCGM, DCBS	Member
7. Dr. S. Rajagopal	CGM, FSU	Member
8. Dr.A.R. Joshi	Adviser, DSIM	Member
9. Shri. Sonjoy Sethee	CFO, DICGC	Member
10. Smt. Jaya Mohanty	Adviser, DICGC	Secretary

The Terms of Reference

1.10 The terms of reference of the Committee were as under:

i. To devise and recommend a model of risk assessment for banks, both commercial and co-operative.

ii. To make recommendations for adapting the model of risk assessment so derived to the calculation of premium to be paid to DICGC.

iii. To study international methodology of risk based premium to ensure that the rating system developed is in tandem with international best practices.

iv. To make recommendation for institutionalising the flow of information between the supervisory Departments of RBI, insured banks and the DICGC at appropriate frequencies to facilitate the calculation of the risk rating.

v. To recommend a matrix of premium rates corresponding to risk-ratings in a manner that there is least disturbance to the existing premium inflows.

vi. To make recommendations for frequency and timing of revision in premium rates and relating the timing of revision to appropriate risk-rating reference date.

Approach of the Committee

1.11 Given the terms of reference and coverage of the wide spectrum of banking systems, `viz` commercial and co-operative banks, RRBs and LABs, the Committee deliberated on the following aspects in developing an appropriate framework for the rating model and the various other facets of risk-based premium.

(1) A robust and simple model with qualitative and quantitative inputs appropriately weighted, with a good predictive power
(2) Simulating the model for rating the banks into groups for risks and therby assigning premiums as per the risk ratings
(3) The data issues like frequency, quality, and intergrity.
(4) Issues connected with confidentiality of ratings, sharing of ratings with the banks, etc.
(5) Frequency of setting/resetting premium rates with appropriate reference dates
(6) The transition path

The Committee held three meetings on April 17, May 19 and on August 27, 2015 to crystallise its thoughts on the above issues.

Structure of the Report

1.12 The report is organised into five Chapters including the Introductory chapter. Chapter 2 provides the practice and experience on risk-based rating and methodologies adopted by some deposit insurance agencies in advanced and emerging market economies. Chapter 3 provides an analysis of key

considerations in developing a rating model for the introduction of risk-based premium, while the Chapter 4 presents the model. Chapter 5 summarises the key recommendations of the Committee.

Acknowledgments

Chapter

2

Risk Based Premium - Cross-Country Practices and Experience

2.1 Deposit insurers collecting premiums from member financial institutions choose between adopting a flat-rate premium system or a system that seeks to differentiate premiums on the basis of individual bank risk profiles. Although flat-rate premium systems have the advantage of being relatively easy to understand and administer, they do not take into account the level of risk that a bank poses to the deposit insurance system and can be perceived as unfair in that the same premium rate is charged to all banks regardless of their risk profile (IADI, 2011).

2.2 The deposit insurance, like any other insurance product, has an inherent problem of moral hazard. The moral hazard theory in deposit insurance argues that deposit insurance creates a strong incentive for the management of banks to choose a high leverage and for the customers of banks to loosen their monitoring the activities of their banks. The presence of moral hazard is more pronounced when the premium of deposit insurance does not properly reflect the effective underlying risk associated with the activities of the banks.

2.3 However, moral hazard could be partially mitigated by introducing appropriate design features to the Deposit Insurance System that would generate incentives for the banks to improve their risk profile. Besides limited coverage levels and scope, and provisioning for timely intervention and resolution by the deposit insurer or other participants with such powers in the financial system safety-net, the design could also provide for collecting a risk-adjusted premium from member banks.

2.4 For these reasons primarily, beginning with the US in 1993, a number of countries adopted risk based premium in their jurisdictions in lieu of flat rate one. Since that time, the number of systems adopting risk based premium has grown steadily, currently estimated to be twenty-six countries, including: Argentina, Canada, Colombia, Finland, France, Germany, Kazakhstan, Malaysia, Peru, Portugal, Romania, Taiwan, Turkey and Uruguay, to name some.

2.5 A brief account of the practices and operations of risk based premium system in some jurisdictions is given in the following paragraphs.

United States

2.6 In the case of Federal Deposit Insurance Corporation (FDIC), the premium rate was set by statute and could be changed only by action of the U.S. Congress. The premium rate was expressed as a percent of assessable deposits. Till 1993, it charged flat-rate deposit insurance premiums from all insured banks.

The incresing bank failures in the 1980s and early 1990s, raised the concerns and legislation was passed that required the FDIC to establish a system of risk-based premiums. The FDIC based its risk based schedule of premium rates on a combination of objective criteria: (1) capital ratios[1] based on financial reports that insured institutions were required to file quarterly with the regulatory agencies; and (2) subjective criteria namely CAMELS ratings[2] derived from on-site examinations.

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[1] specific capital ratios used in the calculation of risk-based premiums are essentially the same as the ratios used in the implementation of Prompt Corrective Action, which requires that progressively more severe restrictions be placed on troubled banks as their capital ratios decline. The use of capital as a primary risk differentiation measure was intended to provide greater protection for the deposit insurance fund by increasing an institution's cushion against loss and increasing the owner's stake in sound operations. Moreover, the use of capital ratios for the purpose of assessing premiums would provide a potentially prompt financial reward (in the form of reduced premiums) to institutions that improve their condition in an objective and defined manner.

[2] U.S. banking supervisors rate insured institutions on six factors: Capital, Asset quality, Management, Earnings, Liquidity, and Sensitivity to market risk (CAMELS). Institutions receive an overall rating ranging from 1 to 5, with 1 being the best rating.

2.7 The risk-based premium rate schedule sought to achieve the following objectives:

- Be fair, easily understood, and not unduly burdensome for weak banks;

- Produce sufficient revenue within 15 years to recapitalise deposit insurance funds that had been depleted by the large costs of failure of the 1980s;

- Increase incentives for insured institutions to operate safely; and

- Provide a transition from flat-rate premiums to a "permanent" risk-based system.

2.8 The FDIC implemented the differential premium system effective January 1, 1993, and it began computing risk-based premiums according to a nine-cell matrix using capital ratios and supervisory ratings. (Table 1).

Table 1: Rating Matrix			
	Supervisory rating		
Capital category	A	B	C
1. Well capitalized			
2. Adequately capitalised			
3. Undercapitalized			

2.9 Institutions in column A had the highest supervisory ratings, while those in column C had the lowest. While the supervisory ratings were based essentially on CAMELS ratings assigned by the primary regulators, the institutions were assigned to capital categories on the basis of a number of capital ratios. The minimum premium rate of 23 basis points was mandated by law and corresponded to the rate paid by all institutions prior to the adoption of the risk-related premium system.

2.10 The FDIC had a Target Fund Ratio (a ratio of deposit insurance fund divided by the insured deposits) of 1.25%. When a deposit insurance fund fell below the target ratio of 1.25 percent of insured deposits, the FDIC was required to charge premium rates that would restore the fund to the target ratio within one year, or charge an average premium of at least 23 basis points.

Beginning in 1996, the FDIC was prohibited by law from charging well-managed and well-capitalised institutions (those in the 1A cell in the table 1 above) for deposit insurance when the fund's reserve ratio was expected to remain at or above 1.25 percent.

Reform of the FDIC Risk-Related Premium System

2.11 While, the risk-related premium system implemented in 1993 was an improvement over the flat rate system it replaced, some provisions of the system and the governing statutes had unforeseen consequences that required corrective action.

2.12 The establishment of a "hard target" for the ratio of 1.25 percent of insured deposits was intended to ensure that the cost of deposit insurance would be borne by the industry and not by taxpayers. However, because the FDIC was required to restore the fund within one year or charge an average premium of 23 basis points if the fund fell below the target, a sharp rise in premiums proved counter cyclical as the rise could occur in a weak economy when the industry could least afford it. On the other hand, when the Reserve Fund Ratio was at 1.25% or above, the FDIC could not collect premium from institutions in category 1A, though they too posed some risk. Therefore as part of reform process, the Federal Deposit Insurance Reform Act of 2005, established a range within which the Board could set a target reserve ratio (and thus the size of the fund), and provided substantial flexibility for the Board to manage the size of the fund.

2.13 Significant refinements to the risk-related premium system were implemented pursuant to financial reform legislation enacted in 2010. Modifications included redefining the assessment base as average consolidated total assets minus average tangible equity (rather than total domestic deposits, the assessment base that had been in place since inception), revising the system for small bank risk assessment, and substantially redesigning the pricing framework for large institutions.

Risk differentiation for small institutions

2.14 In developing the new pricing framework for small institutions - generally those with lower than $10 billion in assets - the FDIC decided to continue to rely on supervisory evaluations and capital levels as a basis for risk differentiation. As the FDIC found that the number of institutions in several of the risk categories were low and the historical five-year failure rates for some of risk categories were similar, the FDIC consolidated the nine existing categories into four. The four new risk categories are referred to as risk categories I, II, III, and IV (Table 2)

Table 2: Risk Categories			
	Supervisory Group		
Capital Group	A	B	C
Well	I	II	III
Adequate	II	II	III
Under	III	III	IV

Risk differentiation for large institutions

2.15 From 2007 through 2011, the FDIC used a combination of risk measures, namely, CAMELS ratings, and the forward looking financial measures of risk to differentiate large banks according to risk. Based upon its experience during the most recent banking crisis (which started in 2008), in 2011 the FDIC adopted a risk-differentiation scheme for all large institutions that eliminates risk categories and attempts to predict risk much farther in the future using measures that were associated with risk during the crisis.

2.16 For large institutions, two scorecards are used: one for most large institutions, and a second for very large institutions that are structurally and operationally complex or that pose unique challenges and risks in case of failure ("highly complex institutions"). Both scorecards combine CAMELS ratings and forward-looking financial measures to assess the risk a large institution poses to the Deposit Insurance Fund (DIF). Each assesses certain risk measures to produce a performance score and a loss severity measure

that are combined and converted into an initial assessment rate. For large institutions, it provided for adjustment in the premium rates by giving credit for long term debt (i.e. adjusting the base premium rate downward) and levying a charge for brokered deposits, adding to the base premium rate.

Canada

2.17 In 1995, Canada amended the Canada Deposit Insurance Corporation (CDIC) Act to replace CDIC's flat rate premium system with a system which would classify member institutions into different risk categories, in large part reflecting the risks posed to CDIC, and charging varying premium rates based on these categories. The design, development and consultation process associated with CDIC's Differential Premium System underwent an elaborate process during a three year period spanning 1996 to 1999.

2.18 In developing a differential premium system, CDIC examined a number of possible approaches that would enable it to classify member institutions into different categories for differential premium rating purposes. These included single quantitative and qualitative factor systems and a range of combined quantitative and qualitative factor systems – including the risk-based premium approach used by the Federal Deposit Insurance Corporation (FDIC) in the United States, the Bank of England TRAM model and the methodologies used by rating agencies. CDIC also took into account the feedback from regulators of CDIC member institutions, other supervisory agencies and a committee of senior executives from representative CDIC member institutions.

2.19 The Corporation introduced the new system commencing 1999. CDIC's differential premium system in use, scores members over quantitative and qualitative fatcors. The transition period provided for the bonus markups over the actual score during the first two years by 20% and 10% points respectively to enable the member institutions to adapt to the risk based premium system.

2.20 The CDIC as part of its periodic review exercise, has revisted the rating model, reviewed these quantitative and qualitative criteria recently and refined

it marginally. A distinction between non-DSIBs (Domestic Systemically Important Banks) and D-SIBs has been introduced through one parameter having a weight of 5%. The quantitative factors are grouped into three broad categories: capital adequacy, other quantitative measures – earnings capacity, efficiency, and asset growth and asset concentraion/encumberance;   all together carrying a weight of 60%. The qualitative measures include supervisory rating (35%) and other information (5%).

. The new rating matrix is in Table 3:

Table 3: Summary of Criteria or Factors and Scores

Criteria or Factors	Maximum Score
Quantitative:	
Capital Adequacy	20
Other Quantitative	
Return on Risk-Weighted Assets	5
Mean Adjusted Net Income Volatility	5
Stress Tested Net Income	5
Efficiency Ratio	5
Net Impaired Total Capital	5
Three-Year Moving Average Asset Growth	5
Real Estate Asset Concentration*	5
Asset Encumbrance Measure**	5
Aggregate Commercial Loan Concentration Ratio	5
Sub-total: Quantitative Score	60
Qualitative:	
Examiner's Rating	35
Other Information	5
Sub-total: Qualitative Score	40
Total Score	100

*Every member institution that is not a domestic systemically important bank (DSIB) must complete this form
** Only a member institution that is a domestic systemically important bank must complete this item.

2.21 The CDIC considers regulatory capital as a cushion against adverse changes in a members' asset quality and earnings. This incorpration of other quantitative factors are intended to assess the ability of a member institution to sustain its capital.

Premium Categories

2.22 CDIC has put into practice a four-category system appropriate for its financial system. The premium categories and related scores are set out in the Table 4.

Table 4: Score and Premium Categories

Score	Premium category insured deposits
>= 80	1
>= 65 but < 80	2
>= 50 but < 65	3
< 50	4

2.23 Premium rates set accross the categories rise in gemetric progression along the rating scale, which are so set with an eye on providing substantial incentive to the member institutions to improve their ranking from lower to higher grades. The setting of premium rates, besides being directionally related to the ratings, has also been guided by the revenue needs of the Corporation and accordingly the premium rates have seen revisions on both in the upward and downward directions.

2.24 The CDIC shares the assigned premium category with each member with a rider that the member institution is prohibited from disclosing the category/premium rate or any other information relating to rating provided to the member institution.

European Union

2.25 The practices in the European Union (EU) nations suggest that the key financial ratios currently applied across member states are quite heterogeneous and the variables taken into account to define them are not identical. They are arrived at in terms of ratios using balance sheet data, financial statement data or other types of account data. For example, France uses solvency, risk diversification, operational profitability and maturity transformation as input variables, while German BVR (Protection scheme of German Cooperative Banks) model incorporates information on capital structure, income structure and risk structure. The indicators used in the models can be broadly grouped into three main classes, each related to one particular aspect of bank activities. The first class reflects their capital structure and solvency profile; the second class measures the riskiness and exposure of the banks; and finally the third set of indicators being the profitability/income.

2.26 As part of reforms, the EU issued a new Directive 2014/49 on the Deposit Guarantee Schemes (DGSs). The directive prescribes achieving a minimum harmonisation such as uniform protection to depositors, and each EU member state to reach a target fund of 0.8% of covered deposits by 2024. While the directive prescribes that collection of premium be based on the amount of deposit covered and risk profile of the member institution, it leaves the measures of risk to the wisdom of member institutions with a broad guidance such as low risk sectors regulated under national laws may provide lower contributions and risk measures may take into consideration capital adequacy, asset quality and liquidity; etc.

Colombia

2.27 Colombian Deposit Insurance Agency FOGAFIN which was set up in 1985, charged a flat rate premium to all its member banks prior to 1998. In the year 1998, FOGAFIN introduced an element of risk based component of premium, based on the ratings from the credit rating agencies, as mark up over the flat (base) premium rate. The risk- rating was replaced by CAMEL

score arrived at by the Financial Supervisory Authority. Subsequently, FOGAFIN established its own CAMEL scoring system in 2009. Presently, FOGAFIN has a hybrid premium scheme comprising of a flat rate premium and a variable premium component based on the risk profile of the member institution. While the flat rate premium is paid by the member institutions quarterly through the year, risk based component is evaluated at monthly frequencies, based on CAMEL model which gives a score between 1 (the institutions with the highest risk profile) and 5 (the institutions with the lowest risk profile). The key elements of CAMEL evaluation are furnished in Table 5.

Table 5: CAMEL Model				
		Weight	Ranges	Score
Capital	Solvency	25%	< 8%	1
			> = 8% y <9 %	2
			> = 9% y <10 %	3
			> = 10% y <12 %	4
			> 12 %	5
Asset:	Non-performing Loans/Total Loans	20%	> 8%	1
			> 6% y < = 8 %	2
			> 4% y < = 6 %	3
			> 3 % y < = 4 %	4
			< = 3 %	5
Management	Operational expenses / Gross financial margin	20%	> 80% o < 0 %	1
			> = 70% y < = 80 %	2
			> = 60% y < 70 %	3
			> = 50% y < 60 %	4
			<50 %	5
Earnings	Return on Assets	20%	< 0%	1
			> = 0% y < 1 %	2
			> = 1% y < 2 %	3
			> = 2% y < 3 %	4
			> = 3 %	5
Liquidity	(current assets - current liabilities)/ total deposits	20%	<= -10%	1
			> = -10 % y < = 4 %	2
			> 4% y < = 6 %	3
			> 6 % y < = 15 %	4
			< = 15 %	5

2.28 The CAMEL score is the key differentiating factor for the member institutions and for setting the differential premium. While there are incentives provided to high rated banks, in the form of refund of premium paid in previous year, ranging up to 50% depending upon the rating, a lower rated institution similarly is required to pay additional premium rising upto 50% of the premium paid in the previous year. Therefore there are strong inbuilt incentives for the institutions to improve their risk profile.

Malaysia

2.29 Since the introduction of the deposit insurance system in September 2005, Malaysia had adopted an *ex ante* funding approach where the premiums charged to the member institutions had been based on a flat-rate premium system. Under this system, the annual premium rate of 0.06% was applied to all members. The Malaysia Deposit Insurance Corporation (MDIC) Act 2005 enables MDIC for the establishment of Differential Premium System (DPS). Accordingly, Malaysia switched over to the DPS in 2008 by replacing the flat-rate system. Since then, Malaysia has revisited and reviewed its premium system in 2011 and recently in 2015 and has improved it further.

2.30 The Malaysian differential premium system has continued to nurture throughout, four key objectives namely, (a) to differentiate banks according to their risk profiles; (b) to provide incentives for banks to adopt sound risk management practices; (c) to introduce greater fairness into the premium assessment process; and (d) to contribute to stability of the financial system via the overall improvement in risk management practices of banks.

2.31 MDIC uses a combination of quantitative and qualitative inputs in scoring individual banks. The quantitative factors which account for a score of 60 out of 100 include capital adequacy, profitability, asset quality, asset concentration, asset growth, loan concentration, and funding profile, etc. The remaining score of 40 accounts for the qualitative criteria which include supervisory rating (35) and other information (5).

Premium categories

2.32 Member institutions are classified into one of four premium categories based on their DPS scores, 1 representing the best, and 4 the lowest. The score ranges and corresponding premium categories are set out in Table 6.

Table 6: Scores and Premium Categories	
Score	**Premium Category**
≥ 85	1
≥ 65 but < 85	2
≥ 50 but < 65	3
< 50	4

Taiwan

2.33 The Central Deposit Insurance Corporation, Taiwan established in 1985 followed a flat rate premium system until mid-1999 when it switched over to risk based premium. Under the Risk-based Premium System, premium rate for individual insured institution is set based on each insured institution's risk level. The risk level is determined on the basis of two risk indicators: capital adequacy ratio (CAR) and Composite Score of the Risk-based Premium Rating System (CSRPRS) based on Financial Early Warning System. The CAR and CSRPRS are both divided into three risk grades:

- CAR grades: Well Capitalized (12% and above), Adequately Capitalized (8% and above and below 12%), Undercapitalized (below 8%)
- CSRPRS grades: Grade A (composite scores of 65 and over), Grade B (50 to under 65), Grade C (less than 50)

2.34 Based on the above, the Corporation places all banks in five different risk groups.

Deposit Insurance Premium Rates

2.35 Five-tiered premium rates are set based on the risk groups of the insured institutions.

- For domestic banks and local branches of foreign and Mainland Chinese banks in Taiwan, premium rates are 0.05%, 0.06%, 0.08%, 0.11%, 0.15% of covered deposits. Eligible deposits in excess of coverage limit are applied a flat rate of 0.005%.

- For credit cooperatives, premium rates are 0.04%, 0.05%, 0.07%, 0.10% and 0.14% of covered deposits. Eligible deposits in excess of coverage limit are applied a flat rate of 0.005%.

- For credit departments of farmers' and fishermen's associations, premium rates are 0.02%, 0.03%, 0.04%, 0.05%, and 0.06% of covered deposits. Eligible deposits in excess of coverage limit are applied a flat rate of 0.0025%.

Conclusions

2.36 This study of a few deposit insurance systems as above, throws out some very useful insights in the context of risk based premium systems. The key insights obtained from the study are as under:

(a) There is wide acceptance of the fact that differnetial premium system is more fair and incentivises the performance and sound risk management systems.

(b) Premium differentiation exercise generally is aimed at devising a system for differentiating one bank from another for the purposes of grouping into premium categories and does not seek to measure the exact risk, except perhaps the US, where FDIC uses forward looking risk measures for large institutions.

(c) Based on the individual scores obtained under ratings process, banks have been categorised generally into four or five risk and thus, premium categories. For small banks, US reduced the number of categories from 9 to 4 based on its experience that historically, in some of the categories, the number of banks remained consistently low. The argument against having large number of categories is that it results in a less visible distinction among the member institutions and less incentive for moving from a lower category to higher category.

(d) The risk rating process ranges from fairly simple like that of Colombia, Turkey, and Kazakhstan to a complex one as in US which has a risk based one through forward looking risk measures for large institutions.

(e) In some jurisdictions, supervisory rating is used as an input into the rating model with about one-third weight in the aggregate maximum possible score (Malaysia, Canada, Turkey). The supervisory rating is being provided to deposit insurance agencies as part of the information sharing and cooperation arrangement among the safety net participants.

(f) Transition period from the flat rate system to the differential rating based one has been fairly liberal (e.g. 3 years in Canada).

(g) The composite score intervals for categorisation purposes differ from accross jurisdictions. For example, highest rated category has a score of 85 (out of 100) upward in Malaysia (in four category matrix) and Kazakhstan (in five category matrix), 80 upward in Canada and Turkey (in four Category Matrix).

(h) The rating models are being consistently reviewed in the context of evolving regulatory and general financial system environment – internal as well global.

References

1. DICGC (2006), 'Report of the Committee on Credit Risk Model'.
2. European Commission (2008), 'Risk-based Contributions in EU Deposit Guarantee Schemes: Current Practices', Joint Research Centre.

3. International Association of Deposit Insurers (2011), 'General Guidance for Developing Differential Premium Systems', October.

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Developing a Rating System – Key Considerations

Introduction

3.1 The Committee recognised that the introduction of differential premium system (DPS) for deposit insurance is a proposal with far reaching consequences for both the insured banks and the DICGC. A perusal of the developments in some of the other deposit insurance systems, as presented elsewhere in Chapter 2 of the Report highlights the challenges involved in the designing, introducing and operating of a DPS. Being conscious of this, the Committee systematically outlined the key considerations in this regard, discussed them in detail by taking into account various perspectives and trade-offs, to arrive at a consensus on a pragmatic approach, suited for the Indian environment.

Approaches for differentiating banks

3.2 A good DPS should attempt to achieve (a) differentiating banks into different risk categories, (b) be forward-looking in assessment, (c) utilise and access a variety of information and (d) find acceptability among the insured member banks. International literature on deposit insurance indicates various methodologies for differentiating banks based on their risk profile. The methodologies could be highly objective using only quantitative parameters or somewhat subjective evaluating qualitative aspects of a bank. Quantitative aspects may include meeting the regulatory capital requirements, asset portfolio diversification, earnings and profitability, asset quality, liquidity, etc. At advanced level, the quantitative evaluation may also be done through the "expected loss" method. For example, Merton compared deposit insurance to the equivalent of a put option on the insured institution's assets and the value of these assets therefore could be calculated by using Black-Scholes option

pricing model. Later Marcus and Shaked (1984) and Ronn and Verma (1986) applied option-pricing model for discovering individual institution's premium rate[1]. The Committee on Credit Risk Model (2006) set up by the Corporation had recommended option-pricing model for India. Although theoretically appealing, use of an option-pricing model is a data intensive exercise and poses serious challenges, given the banking environment of India.

3.3 Qualitative criteria use a number of factors such as management quality, governance standards, and quality of internal controls and processes, which not only indicate the current state but also have a predictive power about at least the near future state of the insured institution. Qualitative evaluation requires instituting an appropriate examination system of the insured institutions for collecting soft information and assessing the quality.

3.4 Jurisdictions like US, Canada, Malaysia and Turkey combine the quantitative and qualitative parameters in their risk assessment exercise. The Qualitative parameters essentially include supervisory rating by way of weights in the over all model. For large institutions, FDIC combines CAMELS rating and forward looking financial measures through which the FDIC attempts to predict the future risk. The advantage of using a combination of qualitative and quantitative parameters is that risk assessment system becomes a comprehensive and effective one with forward-looking risk profiling. Adoption of such a system assumes the existence of an appropriate set up for gathering qualitative information, which can be achieved through onsite assessment of the institutions or information sharing arrangement with the supervisory agencies.

Universe of Insured Banks and Model Selection

3.5 After having discussed the various approaches to the rating exercise, the Committee recognised that a rating model would need to take into consideration the characteristics of the banks it would address the model to. The members recognised the diversity in membership of the Corporation. The membership constituted of public sector and private sector banks, domestic and foreign banks, special category banks like Regional Rural Banks (RRBs), Local Area Banks (LABs) and Cooperative Banks. These classes of banks

differed in size and nature of operations, level of sophistication, levels of technology adoption, governance characteristics and standards of data management. The Committee noted that the number of insured banks as on March 31, 2015 aggregated to 2,129 including 92 commercial banks, 1,977 Cooperative banks, 56 RRBs, and 4 LABs. The category-wise share of assessable deposits (i.e. the deposits subjected to premium collection), correspondingly was 90.3%, 7.0%, 2.7%, and the LABs' share wasnegligible. ***The Committee debated upon the magnitude of task likely to devolve on the Corporation in finalising the rating process and the heterogeneity in the different classes of banks in the context of their adaptive capabilities. It was felt that the model should be a simple and easy to understand but robust one, capturing key risk parameters. (Recommendation 1)***

3.6 The Committee additionally appreciated the status of public sector banks – perceived to have implicit government guarantee or backing. The Committee considered that internationally a preponderant view is that all safety-net tools should apply uniformly across all classes of institutions and the taxpayers' money should not be used in resolving any institution. In the similar vein, implicit guarantees in the form of government ownership should not be given weightage in risk profiling of institutions. The Committee also took note of the fact that over the time, the government ownership of public sector banks may be diluted substantially.   The committee therefore recommended that in all fairness, the rating system should, as far as possible, be ownership neutral.

Number of Rating Categories

3.7 The Committee considered the question of number of categories into which the banks could be grouped based on the assigned scores. The Committee felt that while across the scale, there is a possibility of any number of ratings, the argument against several is that more categories result in a less visible distinction among them along the scale, and there is less incentive for moving from a lower to a higher category because gains from moving a step up may not be very material. FDIC, which had categorised small banks

into nine categories at some stage, on a review, had concluded that number of institutions in several categories had remained consistently low and had therefore reduced the categories to four. *A review of practices in some jurisdictions revealed that number of rating categories ranged from 3 to 5. The Committee also referred to the IADI Core Principle relating to the differential premium system, which inter alia envisaged that premium categories should be significantly differentiated. The consensus view, therefore, was that number of rating categories for assigning premium rates should be limited to four or five. (Recommendation 2)*

Model Input Variables

3.8 The Committee was of the opinion that in assessing a bank for its risk, besides the balance sheet data that would essentially mean quantitative; qualitative information such as management quality, governance and systems and control should be considered for the completeness of the exercise. The Committee discussed about the ways to source qualitative inputs for the rating exercise. The Committee observed that rating models of Malaysia, Turkey and Canada had the supervisory ratings as one input parameter, carrying a weight of about 35%. The Deposit Insurance Agencies in these jurisdictions have access to the supervisory rating under an arrangement formalised through law and/or information sharing arrangement between the DIAs and the supervisors. Accordingly, the Committee felt that inputs from supervisors for respective banking sectors, based on their annual inspections could be provided to the Corporation. Considering, the inspection schedules of the supervisors and the corresponding lags in availability of the qualitative findings, accessing supervisors' inputs were not considered feasible at this stage. Other alternative considered was that the Corporation could have its own set up for bank visits to assess the qualitative indicators. The Committee however was of the opinion that given the number of banks insured, such an exercise would require the Corporation to have massive manpower resources which weighed against such an arrangement in the medium term. *The Committee therefore came to the view that the input variables could be designed based on the annual audited/published data of the individual banks for a large part say weighing upto 90% in the overall score. The*

Committee also drew comfort from the fact that many of the items in the balance sheet and profit and loss account intuitively were reflective of the quality of soft parameters such as internal controls and processes, personnel skills and governance. 'Other information' like conduct of a member in dealings with the Corporation, eligibility for access to Reserve Bank's liquidity window, regulatory penalties, adoption of IT and other soft information may constitute remaining 10%. (Recommendation 3)

Predictive Power of the Model

3.9 The Committee observed that the Corporation, like any insurance system, was insuring the depositors' risk for a prospective period. Hence any model to be used for rating should have the power to predict the risk of insured banks in the near future. The Committee felt that such an assurance could be derived only from forward looking inputs into the model; qualitative indicators, being some of them. Risk based inspection format adopted by the supervisors was indicated to have predictive power for the risk direction but complete implementation thereof across the entire universe of insured banks was still far away. *The Committee was of the view that following the practice of quite a few jurisdictions (Canada, Malaysia, Turkey, US) in which supervisor's rating is an important input, the Corporation and Supervisors may initiate a dialogue to consider entering into a formal arrangement under which the supervisors could share their ratings with the Corporation under appropriate safeguards of confidentiality and usage, in due course of time by which the supervisors would have subjected all the banks to the forward looking risk assessment. Corporation then can use supervisory rating as an additional input in the rating process to refine the model. (Recommendation 4)*

Data source, Data Quality, Quality Assurance and Frequency

3.10 Sourcing of quality data is a key in development of risk rating. The Committee, accordingly, deliberated on the sources of data for the model. The Committee members from the regulatory and supervisory departments were requested to inform the Committee whether they could assist in providing the

requisite data on a regular basis at desired frequencies. The members concerned observed that while the data pertaining to commercial banks was fairly current and sufficiently exhaustive at any point of time, there were apprehensions about the quality and timeliness in getting the data from cooperative banks particularly, the non-scheduled ones, which were substantial in number. Notwithstanding the above, the Committee decided to use the data presently available with the regulator/supervisor for a limited purpose of simulation exercise for developing the rating model. *For operationalization of the rating system, the Committee felt that the Corporation could institute its own MIS for the member banks and tag it to the half yearly Deposit Insurance (DI) returns being presently received from the banks. (Recommendation 5)*

3.11 For ensuring the integrity of the data, the committee viewed the importance of sample verification of the data submitted, by accessing the primary source at banks' site. It was informed to the Committee that the Corporation is currently utilising the services of supervisors for feedback collected during the course of their inspections, on the correctness of compilation of returns submitted to the Corporation. *The Committee desired that during the course of their inspection as and when taken up, the supervisors could extend the checking to the information to be submitted by the banks in the context of rating also for the feedback to the Corporation. (Recommendation 6)*

3.12 The Corporation could also utilise the supplementary information available from sources easily accessible, to upgrade its market intelligence about general well being of the member banks and also to use this information to validate the Corporation's assessment of banks. For example, in the case of commercial banks and scheduled UCBs, the peer reviews being prepared by regulatory/supervisory departments would provide a good indication about banks' current state and the likely future. The Committee also suggests obtaining appropriate periodic inputs from NABARD in respect of RRBs, and State/District Central Cooperative Banks. (Recommendation 7)

3.13 The Committee stressed that timely receipt of the data from member banks was crucial for the rating exercise. It was appreciated that there was no case for forbearance in this respect, because late submission or non-submission could also be with an intention of beating the rating process particularly when bank could have deteriorated in its performance. *The Committee felt that non-receipt of data in time from a bank should earn it a straight downgrade of rating by a notch and accordingly a higher premium be charged at the corresponding rate. (Recommendation 8)*

Rating of New Members and Merged entities

3.14 As per the Section 11 of the DICGC Act 1961, it is mandatory for the Corporation to admit any new bank as its member under deposit insurance system soon after it is granted license under Section 22 of the Banking Regulation Act, 1949. A bank, which has just been licensed, will not have financial history required for rating it for deposit insurance premium purposes. *The Committee therefore decided that such a bank may be assigned a premium category corresponding to a 'base premium rate' (delineated in paragraph 3.17 below) till it produces its first annual financial accounts at the first annual accounting date (i.e. 31 March) after the commencement of operations. (Recommendation 9)*

3.15 There are also instances when an existing member entity merges with another bank and loses its own identity. As per the current deposit insurance regulations, the merging entity is required to clear its premium liability upto the date of its deregistration and thereafter the bank taking over owes the insurance premium liability on the deposits of the merged bank. With the flat rate premium, the application of premium rates, pre and post merger, would not raise any issue. *Under Differential Premium System however, it is likely that the two entities may be subject to application of different premium rates. In this situation, the Committee recommends that while the merging entity will discharge its liability upto he date of deregistration at the premium rates applicable to it, post merger the*

bank taking over would continue to pay the premium at a rate as applicable to it (till the next reset).   (Recommendation 10)

Building in the Incentives

3.16 The Committee recognised the role of a rating system as a tool for incentivising the good performance and as an instrument to encourage lower rated banks to strive towards improving their ratings. *For building incentives in favour of better rating and dis-incentivising worse rating, Committee's view was that the premium rates should move along the rating ladder in geometric/curvilinear progression rather than arithmetic/linear progression. (Recommendation 11)*

3.17 The Committee also looked two possible approaches to scale the premium rates along the rating ladder. One process could be to assign the premium rates as a multiple of a base premium rate - multiples changing as per the rating; and the other to assign the absolute premium rates differentiated based on the rating of banks. It was felt that either of the systems would have same results. For operationalizing, the Committee felt that the Corporation could have a "base premium rate" and the effective premium rate might be derived by multiplying the base rate by a multiple (a Multiplicative Factor) representing rating. For example, the base premium rate could be 10 paise (the current premium rate per annum per hundred of Indian Rupees) and multiple for a top category bank could be .95, resulting in effective premium of 9.5 paise. While the multiples may remain unchanged, the revisions in the effective premium rates could be achieved through the variations in the base premium rate. The effective premium rate would progress along the rating scale on a convex curve, as presented in Chart 1:

Chart 1: Relationship between the Risk Rating and the Premium Rate

Discovering Premium Rates Across the Rating Scale
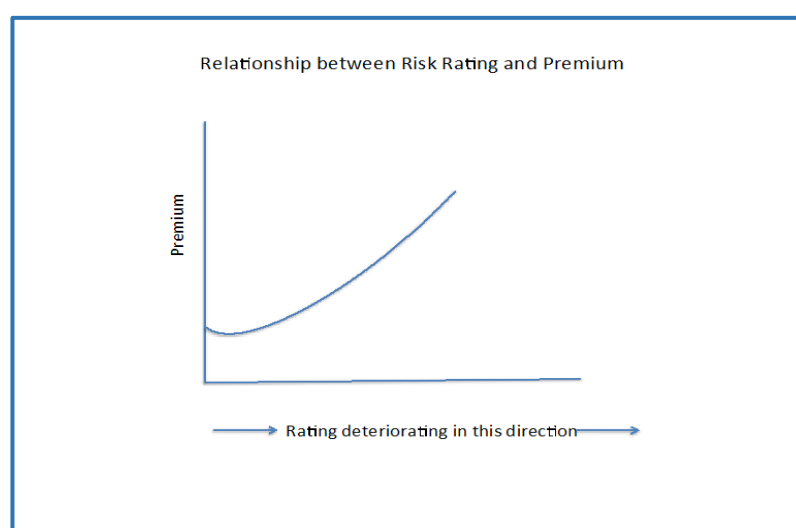
Discovering Premium Rates Across the Rating Scale

3.18 A Deposit Insurance Agency requires funds to be accumulated in a fund account usually referred to as Deposit insurance Fund, to meet its insurance obligations to the insured depositors in the event of bank failure. Identifying the funding requirements for meeting insurance obligations and instituting a sound funding arrangement for meeting those requirements are critical for the effectiveness of a Deposit Insurance System. The funding requirements are usually representative of the probability of a net loss on portfolio basis that a deposit insurance agency could have to suffer on account of its insurance liabilities. This requirement is termed generally as Target Reserve Ratio (Reserve Ratio is defined as the ratio of Deposit Insurance Fund (DIF) to the Insured Deposits). The DIF fund is built by way of surplus of premium payments by member banks on ex-ante basis, after meeting the operating expenses and payment of claims of depositors of insured failed banks. The Corporation, by regulation, is entitled to collect premium on ex-ante basis and is accordingly collecting the premium in advance. The Corporation has not yet set up a Target for Deposit Insurance Fund either absolute or in the form of Reserve Ratio. There are a good number of jurisdictions, which have set up Reserve Fund Targets for their deposit insurance operations, which vary from as low as 0.25% (Hong Kong) to 5% (Argentina)[2]. Internationally, the work is still on for refining the process of determining the size of Target Fund. IADI

has set up a Sub Group under the aegies of Research and Guidance Committee for developing a Guidance Note for the IADI member institutions on setting up Target Fund. As of now, the Corporation is informally moving towards a Reserve Ratio of 2.5%. The Reserve ratio as on 31 March 2015 was 1.93%. The movement in the Reserve Ratio during the past 5 years is depicted in Chart 2.

Chart 2: Movements in the Reserve Ratio
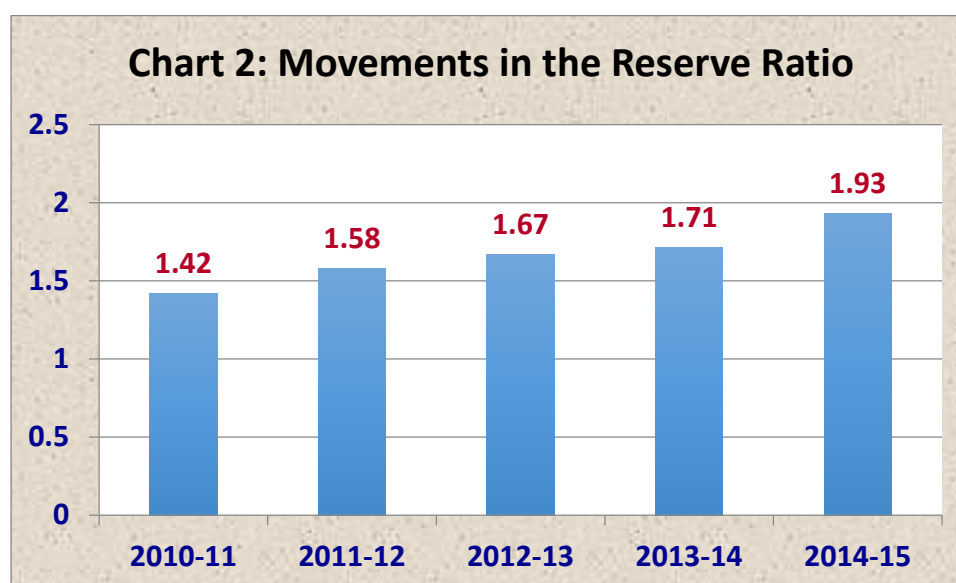
3.19 Since the Corporation is still 57 basis points away from its informal target, in this context, one of the terms of reference of the Committee namely to recommend a matrix of premium rates for various rating categories in a manner as not to adversely affect the current premium inflows, is material. The Committee conducted a simulation exercise to discover the appropriate set of multiples of the base premium rate, at different scale points so that current premium inflows and their trends are preserved. The premium rate matrix corresponding to the different rating points is presented in Chapter 4.

Frequency for resetting of rating and premium rates

3.20 The Corporation collects premium from the banks at half yearly frequencies, in advance. For example, for the insurance period of April - September of any year, the premium is collected during the April-May months with reference to the deposit base of immediate previous 31 March; and similarly for the October-March insurance period. Thus the Corporation

collects the premium separately for two insured half-years based on two different deposit bases. Ideally, premium collection and risk premium assessment should go hand in hand, which would mean discovering the risk rating of each bank on a half yearly basis. The Committee deliberated on this aspect and felt that half yearly assessment of rating would be too onerous a task both for the Corporation and the member banks in terms of data submission by the banks and data collection and collation by the Corporation. Moreover, mid year data of a bank is usually audited under a limited review and therefore reliance thereon would be of limited value. ***The international practice too largely is that of an annual discovery. The Committee therefore decided to recommend rating assessment on an annual basis based on the annual audited data of the bank. (Recommendation 12)***

3.21 The next action on hand was to decide on the correspondence between the time reference point for rating discovery and the insurance period for which the rating would be applicable. ***Taking a cue from the manner in which premium is collected and given the lag between the reference date for rating (i.e. 31 March) and completion of the process of rating discovery, the Committee felt that each year's rating would apply to the prospective two half-year premium periods namely October – March and April - September. (Recommendation 13)***

3.22 The Committee observed that the Corporation was collecting information for deposit insurance and premium purposes at half yearly intervals. ***Though the Committee had decided that rating calculation and premium reset should be an annual exercise, the Committee was not averse to obtaining information for the model's inputs from the banks on a half yearly basis, to take advantage of the benefits accruing from tracking a bank's performance in the context of a possible unexpected deterioration in its performance and consequent remedial action. Such an action would be of substantial value particularly in tracking the banks, which were in the lowest or second lowest rating category in the latest available rating. It therefore recommends that the MIS to be***

instituted for the rating purposes may have a half yearly frequency. (Recommendation 14)

3.23 The Committee also discussed the desirability of bringing in the pro-cyclicality to the premium rate reset under which, during the times of stability and growth , banks would be able to contribute to the insurance fund more liberally. Hence, the Corporation could strengthen the Insurance Fund during these times and could reduce the premium rates during the times of stress. The proposal however did not find favour for two reasons. One, determining of stressed periods and good periods for the financial sector would be subjective and hence may be subject to questioning. Second, during the good times, the devolvement of the Corporation's liability would be less and correspondingly, net savings could improve, hence achieving the objective of strengthening the Insurance Fund during such times. The Committee therefore recommends that introduction of pro-cyclicality in the premium rates reset may not be considered. (Recommendation 15)

Transparency and Confidentiality

3.24 The rating connotations can have a significant perceptive impact on the functioning and operations of a bank. Therefore, a bank is reasonably and legitimately entitled to know the rating process. The transparency also imparts credibility to the differential premium system as the transparency enhances accountability and sound management of the premium system. Further IADI Core Principle 9 recommends that differential premium should be transparent to all the participants. Therefore the balance between the confidentiality and transparency requires to be managed prudently.

3.25 The practice with different deposit insurance agencies is that at minimum a basic rating framework with input variables and their weights is disclosed to the banks at large. However a bank's actual rating is shared with only the bank concerned, the latter being important as a disclosure of rating in public may have negative consequences for a bank such as fears of bank runs if the rating is low on the scale.

3.26 The Committee therefore was of the opinion that the Corporation should publish in public domain, the key characteristics of the rating model. (Recommendation 16)

3.27 The rating process and results, within the Corporation, would have to be managed with due care of confidentiality. In the world outside the Corporation, only the rated bank should know its rating. The Committee observed that the confidentiality safeguards adopted by the Reserve Bank with regard to their rating system could be looked at for instituting the confidentiality and usage requirements within the Corporation. (Recommendation 17)

3.28 Further, the Committee felt that the rated bank would ensure its rating's confidentiality within the bank and that the rating is made known only to the important and key personnel within the bank. It was also indicated that the rating was for the specific purpose of assigning the premium rates and the rated bank would not use it for any other purpose, including canvassing for business or any type of capital funding. The member institutions should also be prohibited from disclosing the premium rate assigned to it, total score assigned or any score assigned to a member's quantitative or qualitative factor(s) and any other information relating to rating the Corporation may decide to share with a member bank. (Recommendation 18)

Transition to the new rating system

3.29 The transition to rating based premium, despite its immense value and benefits, could be painful not only to those banks which could fall in the high risk category and hence end with higher financial burden by way of higher premium, but also to others for fear of the possibility of being in the similar state on a future date. Therefore, success in the adoption of differential premium would depend on how well the transition is managed. *The Committee deliberated on this aspect and came to a view that there should be adequate consultations on various aspects of the DPS, with*

the stakeholders viz. representative bodies of the member banks, supervisors and regulators and the government. Corporation would also need to draw up a clear transition plan which should explain transition objectives, responsibilities identified with the resource personnel within the Corporation and time table with deliverables and design an appropriate reporting system. The plan should also require communicating with the banks on the introduction of the differential premium, clarifying the policy rationale, explaining the benefits of such a system for the banks and giving a transition path including the lead time for preparing the banks to adopt the new system. (Recommendation 19)

New Classes of Banks

3.30 Reserve Bank of India, as part of its policy to diversify the banking system and introduce banking classes with niche business models, has recently granted in principle approvals to certain entities and persons to set up 'payment banks'. The Bank is also scrutinising applications for licenses under 'small finance bank' category and it is possible that some entities may be authorised to set up banks under this class too. *The Corporation would need to revisit the proposed rating model for examining the format and applicability to these classes of banks as and when these banks start operating. (Recommendation 20)*

Periodic Review

3.31 The financial landscape is constantly evolving. The changing international and domestic regulations, supervisory practices, balance sheet compositions and banking products, and new tools of risk assessment; all lead to the changes in the risk profiles of the banks. The Committee also appreciated that capital standards for State Cooperative and District Central Cooperative Banks are still evolving. A substantive work on development of regulatory framework in response to 2008 financial crisis is still in progress. Such changes would require the premium system to be reviewed and updated in tune with the changing

environment. Therefore, the Committee feels that as a good practice, the rating system be reviewed periodically, at a minimum of once in three years so that the rating system and methodology remain current and relevant. (Recommendation 21)

References

[1] General Guidance for Developing Differential Premium System, IADI (2011)

[2] FSB Thematic Review on Deposit Insurance Systems (2012)

Chapter

4

Developing the Rating Model

Introduction

4.1 As stated elsewhere in Chapter 3 of the Report, the Committee desired that the Rating Model for the banks be robust, simple and easy to understand. The important parameters based on which the banks in India have usually been subjected to rating process are both quantitative and qualitative. In Indian supervisory rating process, CAMELS approach has been used over a long period of time, which is currently being replaced by forward looking risk-based assessment in stages. Acronyms in CAMELS indicate respectively Capital Adequacy (signifying solvency), Asset Quality, Management Quality, Earnings, Liquidity and (Internal) Systems and Controls. Similar indicators have been used elsewhere in the world for rating of banks.

4.2 The Committee had a look at the sector structure of the banks insured by DICGC. The universe of insured banks in India comprise of public sector banks, private sector banks, Regional Rural Banks, Co-operative banks, local area banks and foreign banks (Chart 1).

Chart 1: Sector Structure of Insured Banks in India

```
                    ┌─────────────────────┐
                    │  Number of banks    │
                    │ insured as on March │
                    │     31, 2014        │
                    │      (2145)         │
                    └─────────────────────┘
         ┌──────────────────┼──────────────────────────┐
┌────────────┐   ┌──────────────────┐      ┌───────────┐   ┌────────────┐
│  Public    │   │  Private Sector  │      │  Foreign  │   │    Co-     │
│Sector Bank │   │    Bank (24)     │      │  Banks    │   │ operative  │
│   (85)     │   │                  │      │   (42)    │   │  Bank      │
└────────────┘   └──────────────────┘      └───────────┘   │  (1994)    │
                                                           └────────────┘
```

SBI & Associates (6)	Nationalised Banks (21)	Regional Rural Banks (58)	Comm Banks (20)	LABs (4)	State (31)	District (371)	UCBs (1592)
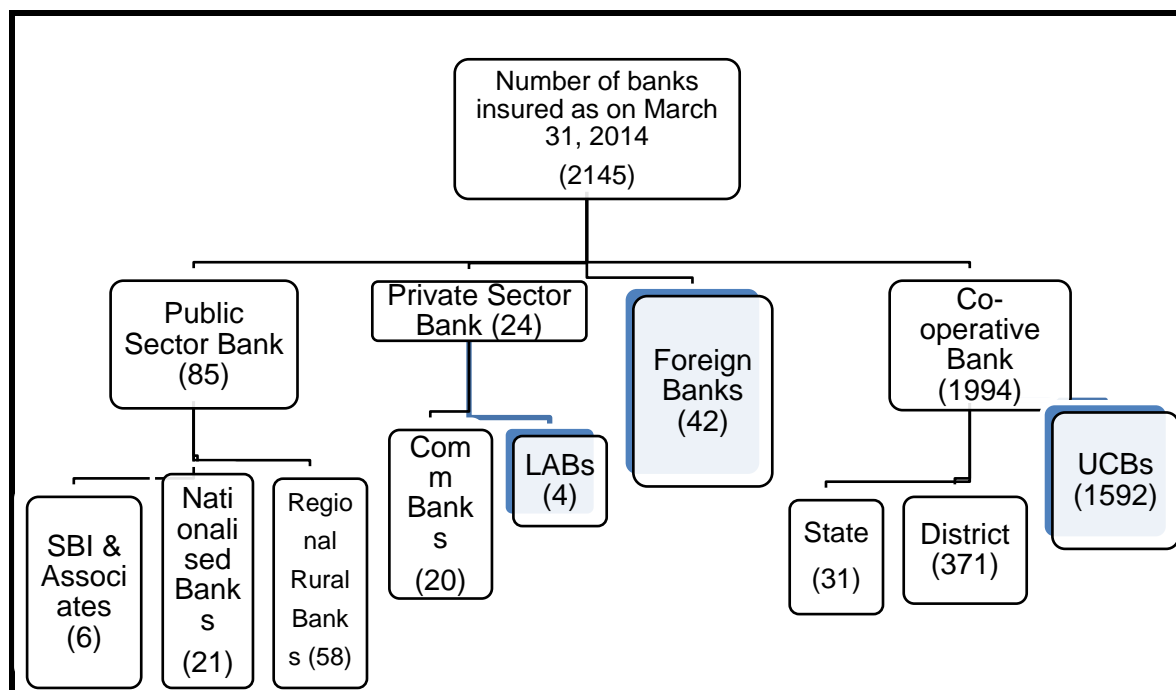
4.3 The banking system has three major categories of banks based on the mode of incorporation and ownership characteristics, namely, public sector banks, private sector banks and cooperative banks. The sub-categories within the major categories are closely similar. All the public sector banks, private sector banks (other than Local Area Banks (LABs)) , RRBs and State (Apex) Cooperative Banks are listed under Second schedule of the RBI Act 1934. Other banks in co-operative sector however are scheduled as well as non-scheduled. A scheduled status provides banks with certain privileges e.g. access to RBI's liquidity window, subject to compliance with other eligibility criteria.

4.4 Indian banking sector is highly skewed. Although the number of banks with non-scheduled status far exceeds that of scheduled banks, the Indian banking sector is primarily under the domination of scheduled banks. Non-scheduled banks are small in size in terms of business, have a limited area of

operation; many of them being single branch banks. Among the scheduled banks too, it is the Scheduled Commercial Banks (SCBs) i.e. other than RRBs that play the most important role. As on end March 2014, about 94 per cent of the banking business (deposits and credit) of all scheduled banks was with the SCBs. These banks therefore assume huge systemic significance for the Indian banking sector and thus for the Indian financial system. In view of the systemic importance of the SCBs in India, a brief analysis of risks assumed by these banks is presented below. The analysis is based on major financial parameters of these banks as per their audited annual accounts for the financial years ended March 2012, March 2013 and March 2014.

Balance Sheet Analysis of SCBs

Ownership pattern

4.5 SCBs comprise of State Bank of India and its associates (SBIA), nationalised banks (NB), private sector banks and foreign banks. SBIA and NBs are called public sector banks as major shares of these banks are held by the Government of India (GoI). A major part of the equity in private sector banks is held by private shareholders. Foreign Banks (FBs) are the branches of foreign banks having presence in India. There were 90 SCBs operating in India at end March 2014 of which 6 were SBIA, 21 were NBs, 20 private sector and 43 were FBs.

Bank group wise share in major balance sheet items

4.6 NBs accounted for the majority shares in deposits and advances followed by SBIA. In respect of capital and reserves and surplus also NBs accounted for the major share followed by private sector banks. Regarding investments in government securities too, NBs accounted for the major share followed by near equal share by SBIA and private sector banks (Chart 2).

Chart 2: Bank group percentage shares in major balance sheet items
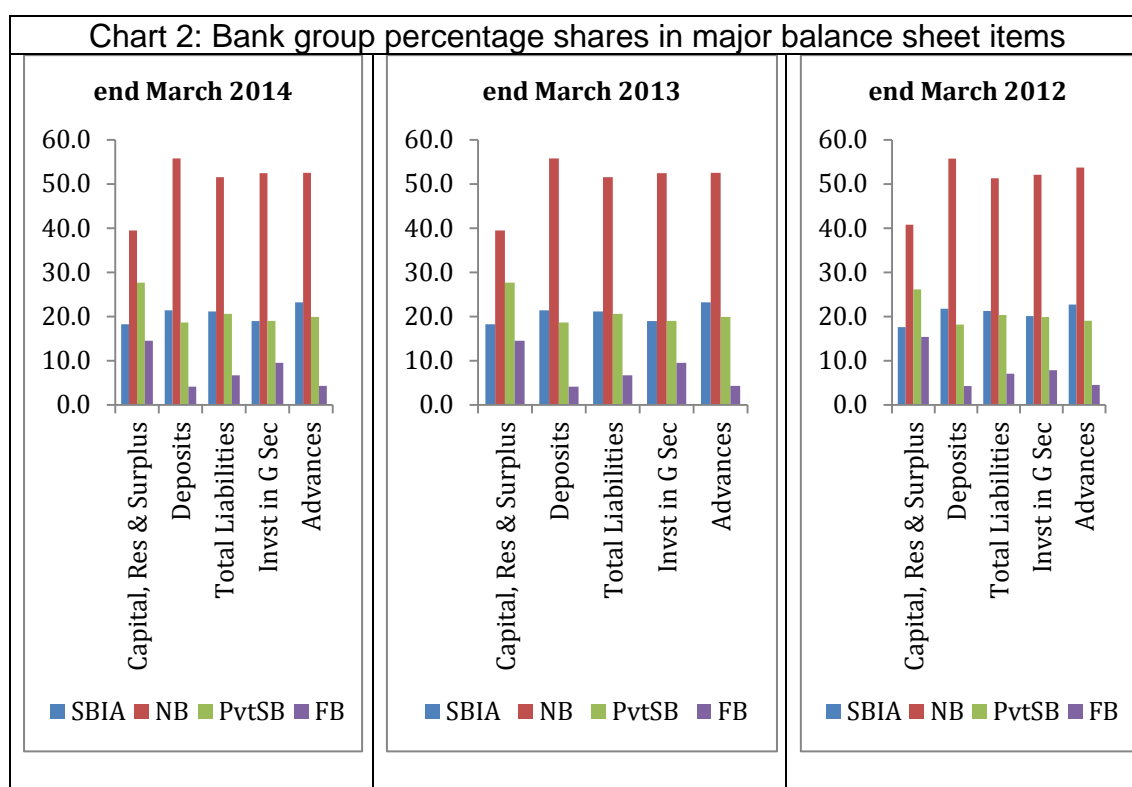
Source: Statistical Tables Relating to Banks in India (www.rbi.org.in)

Bank group Share in Income, Expenses and net Profit

4.7 NBs had major share in interest income followed by nearly equal share by SBIA and private sector banks (Chart 3). In case of other income, share of private sector banks came very close to that of NBs and remained significantly above that of SBIA and FBs. In case of expenses, SBIA and private sector banks performed almost equally well and their share in expenses remained noticeably lower to that of NBs (Chart 3). Share of private sector banks was the highest in net profit in 2013-14 and remained next to that of NBs that had the highest share in the previous two financial years.

Chart 3: Bank group percentage shares in Income, Expenses and net Profit

Source: Statistical Tables Relating to Banks in India (www.rbi.org.in)
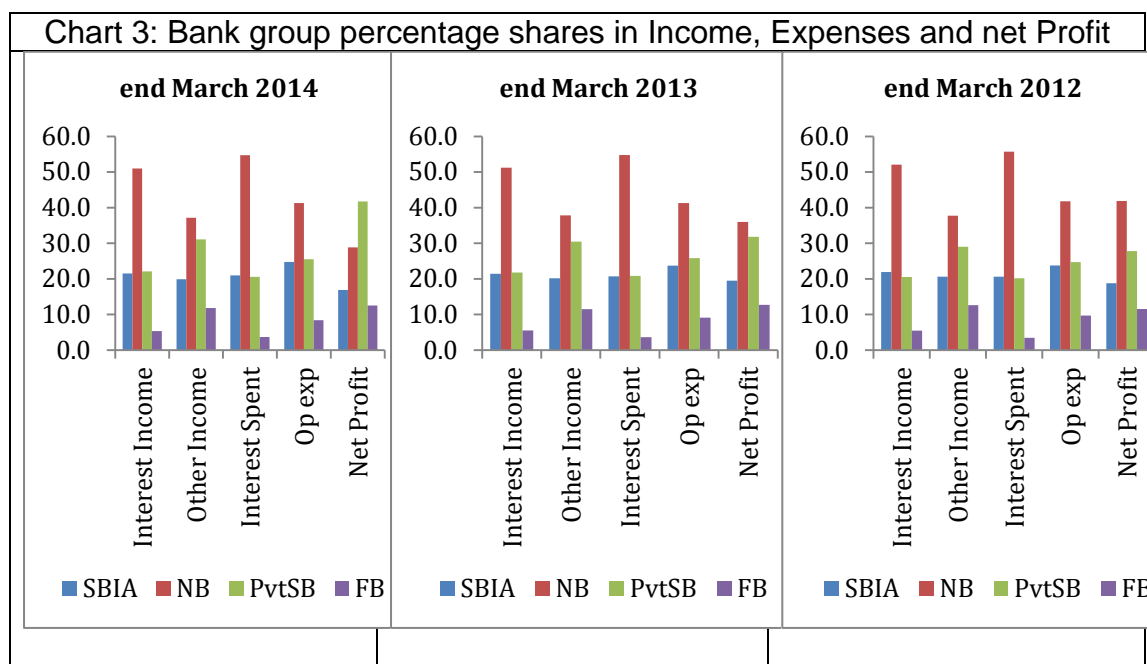
Bank group Share in NPAs

4.8 Share of NB was the highest in non-performing assets followed by SBIA (Chart 4).

Chart 4: Bank group percentage shares in NPAs

Source of data: Statistical Tables Relating to Banks in India (www.rbi.org.in)
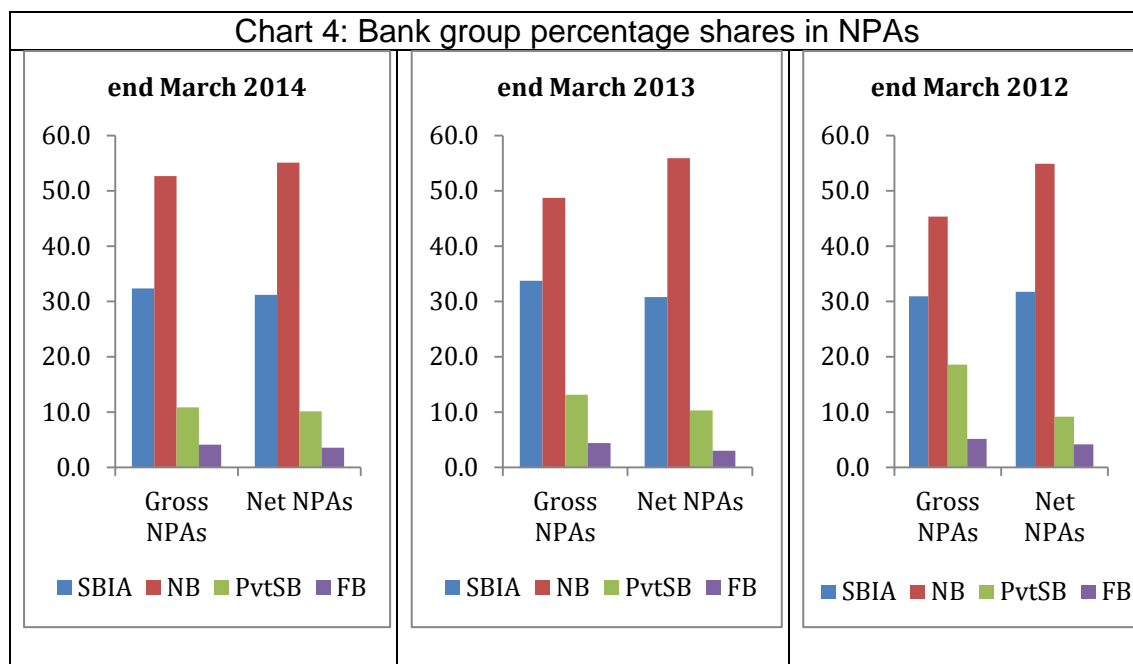
Adopting Risk Parameters

4.9 The Committee acknowledges that there are a myriad of parameters under which a financial institution could be evaluated for its risk. The Committee was of the view that for introduction of a Differential Premium System, it was enough to devise a protocol under which banks could be differentiated from one another for being placed in an inter-se order and to provide this as incentive for banks to avoid excessive risk taking. Therefore the model did not require a measurement and quantification of exact quantum of insurance risk in monetary value terms for each institution so as to get the DICGC compensated for that through premium. Against this background, the Committee decided to devise the rating model to be one akin to CAMELS model. As highlighted in Chapter 2, a good number of Deposit Insurance Agencies (DIAs) too have deployed some elements of CAMELS model in rating the insured institutions. Prominent elements among them are Solvency, Profitability, Asset Quality and Liquidity. Some DIAs have used additionally Supervisory Inputs to capture qualitative aspects, which have been sourced under information sharing arrangements between the DIAs and the supervisors. The Committee was aware of the limitations on the availability of supervisory ratings as an input in India. ***It therefore decided to propose the following parameters to be used as model inputs:***

> ***(a) Capital Adequacy and quality of its composition (weight 25%),***
> ***(b) Asset Quality (weight 25%),***
> ***(c) Profitability (weight 20%)***
> ***(d) Liquidity (weight 20%), and***
> ***(e) Other information (weight 10%)***
> ***(Recommendation 22)***

4.10 A brief detail of the significance of each of these indicators is presented below.

(a) Capital Adequacy and quality of its composition

The use of capital as a primary risk differentiation measure is intended to provide greater protection for the deposit insurance fund by recognising capital's role in cushioning against losses, and bringing in owner's stake in ensuring sound operations. Therefore it was decided to include the following risk factors under capital adequacy viz. capital to risk weighted asset ratio (CRAR) and the presence of Tier I Capital. While, CRAR reflects the overall soundness of the bank, the level and nature of Tier I capital helps to assess the quality of the capital. The scheduled commercial banks other than RRBs have been brought under the Basel III regime under a transition arrangement (Table 1) while rest of the banks are still subjected to Basel I norms. It may be added that State and District Central Cooperative Banks are being brought under the Capital Adequacy of 9% (as applicable to other banks under Basel I) by March 2017. It is observed from the Table that the composition of Capital Ratios under Basel III is materially different from that under Basel I. While under Basel I, Tier 2 Capital cannot be more than 100% of tier I Capital, Basel III, requires the banks to have as on April 31, 2014 a Tier I share not below 6.5% points in Capital ratio of 9% points. This difference would reflect in the evaluation of the quality of capital as part of rating model.

Table 1: Transitional Arrangements under BASEL III-Scheduled Commercial Banks (excluding LABs and RRBs)

(% of RWAs) **Minimum capital ratios**	April 1, 2013	March 31, 2014	March 31, 2015	March 31, 2016	March 31, 2017	March 31, 2018	March 31, 2019
Minimum Common Equity Tier 1 (CET1)	4.5	5	5.5	5.5	5.5	5.5	5.5
Capital conservation buffer (CCB)	-	-	-	0.625	1.25	1.875	2.5

Minimum CET1+ CCB	4.5	5	5.5	6.125	6.75	7.375	8
Minimum Tier 1 capital	6	6.5	7	7	7	7	7
Minimum Total Capital	9	9	9	9	9	9	9
Minimum Total Capital +CCB	9	9	9	9.625	10.25	10.875	11.5
Phase-in of all deductions from CET1 (in %)	20	40	60	80	100	100	100

(b) Asset Quality

For asset quality, it was decided to use the following risk factors related to non-performing assets viz. the percentage of Gross NPAs to Gross Advances to reflect overall asset quality, percentage of Net NPAs to Net Advances to assess the strength of balance sheet based on the provisions made for NPAs and share of sub-standard advances in Gross NPAs which is indicative of quality of NPAs in terms of higher probability of NPA movement into standard category.

(c) Liquidity

For this factor, the Committee decided to have model inputs based on share of term deposits in total deposits and the ratio of liquid assets to total deposits and borrowings. The consideration for term deposits is based on the assumption that term deposits provide funding stability and technically their repayment in case of bank failure can be deferred till their maturity thus helping the Deposit Insurance Agency to manage its liquidity. Therefore higher the share of term deposit, the better from the perspective of a DIA. As regards liquidity on the balance sheet, the Committee held the view

that all market assets and the assets maturing within one month would denote liquidity. The Committee accordingly decided that the liquid assets would consist of cash and bank balances (including balances with RBI), monies placed with counterparties (interbank) and maturing within one month, and investments in government securities. In a typical state of bank liquidation, these assets would generate cash more easily. Therefore, higher the share of such assets, more liquid is the balance sheet.

(d) Earnings

Performance under the earnings parameters provides a useful insight into a member bank's potential to sustain its capital ratios. Under earnings, three risk factors were selected viz. Return on Assets (RoA), cost to income ratio and Net Interest Margin (NIM). RoA will be compiled as percentage ratio of profit after tax to average total assets and is indicative of the productivity of assets. Cost to income ratio, is defined as percentage ratio of operating expenses to total of net interest income plus non-interest income and reflects the degree of efficiency of expense management. Lastly the NIM depicts pricing efficiency of liabilities and assets. It also captures the adverse effect of NPAs as they generate no interest income. A higher margin reflects a better acceptance of the bank by the public and the businesses.

e) Other Information

It will include such risk factors that are not covered above. These risk factors may be related to state of adoption of technology, access to Reserve Bank funding, regulatory penalties, DICGC's own assessment of a member bank in compliance with various deposit insurance related requirements, etc.

4.11 Based on the quality/significance of the different indicators, the Committee decided to allot Reward Points (RPs) to each bank and aggregate them to arrive at the overall score.

Proposing a Model

Framework of the model

4.12 ***The Committee decided to build a model based on the risk factors proposed earlier and called it Comprehensive Risk Assessment Module (CRAM). For each risk factor, a bank is given a Reward Point based on the risk assumed in respect of that risk factor. A bank will get a higher RP for lower risk exposure. The framework of the model is presented below*** (Table 2). ***(Recommendation 23)***

Table 2: Framework of the Comprehensive Risk Assessment Module (CRAM)

Risk factors	Reward point (RP)
1. Solvency	0 - 25
of which	
(i) CRAR (in %)	0 -15

(ii)   Quality of capital
        (a) For SCBs: Tier I capital ratio (other than RRBs) (%)
        (b) For RRBs, LABs and Cooperative banks: Tier I to Tier II ratio
	0 - 10

2. Asset quality	0 - 25
of which	
(i) Ratio of Gross NPAs to Gross advances (in %)	0 - 12
(ii) Ratio of net NPA to net Advances (in %)	0 – 8

(iii) Ratio of Sub-standard assets to Gross NPAs (in %)	0 - 5
3. Liquidity	0 - 20
(i) Liquid assets [cash in hand, balance with RBI, balances with banks, money at call & short notice, market value of government securities held (in India)] to total of deposits & borrowings (in %);	0 – 15
(ii) Ratio of term deposits to total deposits (%)	0 - 5
4. Profitability *of which*	0 – 20
(i) Return on Assets (PAT to Total Average Assets) (in %)	0 – 10
(ii) Cost to income ratio (in %)	0 - 5
(iii) Net Interest Margin (in %)	0 - 5
5. Miscellaneous	0 - 10
Access to RBI liquidity support, state of technology adoption, regulatory penalties, and compliance with DICGC's various requirements, etc.	0 - 10
Total	0 - 100

Rules for assigning reward point

4.13 ***The rules for assigning RP for each of the risk factors outlined with the exception of the 'other information' are presented below (Tables 3, 4 and 5). (Recommendation 24)***

Table 3: Rules for Assigning RPs: Solvency

1. Solvency					
CRAR		For SCBs only		For RRBs, LABs, and Cooperative Banks only	
(i) CRAR(%)	RP	(ii) Tier 1 capital(%)	RP	(ii) Tier 1 to tier 2 ratio$	RP
<6	0	< 5.0	0		
≥6 but < 7	6	≥ 5.0 but < 5.5	1	≥1.0 but <1.2	4
≥7 but <8	7.5	≥5.5 but < 6.0	3	≥1.2 but <1.4	6
≥8 but < 9	9.0	≥ 6.0 but < 6.5	5	≥1.4 but <1.6	8
≥9 but <10	10.5	≥6.5 but <7.0	7	≥ 1.6	10
≥10 but <11	12.0	≥7.0 but <7.5	9		
≥11 but <12	13.5	≥ 7.5	10		
≥12	15				

$ banks can not have this ratio below 1;

It may be observed that though the minimum CRAR prescribed is 9%, a CRAR level below the minimum prescribed too has value from the solvency perspective. Therefore, the Committee considers that a CRAR below 6% maximises the risk and consequently minimises the RPs.

Table 4: Rules for Assigning RPs: Asset quality

2. Asset Quality					
(i) Ratio of GNPAs to Gross Advances (%)*	RP	(ii) Ratio of net NPA to net Advances (%)	RP	(iii) Ratio of Sub-standard assets to GNPAs (%)	RP
>=8	0	>= 2.7	0	< 50	0
≥7 but < 8	1.5	≥2.4 but <2.7	1	≥50 but <55	1
≥6 but < 7	3	≥2.1 but <2.4	2	≥55 but <60	2
≥5 but < 6	4.5	≥1.8 but < 2.1	3	≥60 but <65	3
≥4 but < 5	6	≥1.5 but <1.8	4	≥65 but <70	4
≥3 but < 4	7.5	≥1.2 but < 1.5	5	≥ 70	5
≥2 but < 3	9	≥0.9 but <1.2	6		
≥1 but < 2	10.5	≥0.6 but < 0.9	7		
< 1	12	< 0.6	8		

Table 5: Rules for Assigning RPs: Liquidity and Profitability

3. Liquidity				4. Profitability					
(i) Liquid Assets (Cash in hand, balance with RBI, balances with banks, money at call & short notice, investmen	RP	(ii) Term deposits to total deposits	RP	(i) Return on Assets (%)	RP	(ii) Cost to income Ratio (%)	RP	(iii) Net Interest Margin (%)	RP

t in g sec in India) to total of deposits & borrowings (in %)									
<21.5	0	< 10	0	< 0.0	0		0	< 1	0
≥21.5 but < 23.0	1.5	≥10 but < 20	1	≥0.0 but < 0.1	1	>= 60		≥1 but <1.5	1
≥23.0 but <24.5	3	≥20 but <30	2	≥0.1 but < 0.2	2	>=50 but < 60	1	≥1.5 but < 2.0	2
≥24.5 but < 26.0	4.5	≥30 but <40	3	≥0.2 but <0.3	3	>=40 but < 50	2	≥2.0 but <2.5	3
≥26.0 but <27.5	6	≥40 but<50	4	≥0.3 but <0.4	4	>=30 but < 40	3	≥2.5 but <3.0	4
≥27.5 but <29.0	7.5	>= 50	5	≥0.4 but < 0.5	5	>=20 but < 30	4	≥ 3.0	5
≥29.0 but <30.5	9			≥0.5 but <0.6	6	< 20	5		
≥30.5 but < 32.0	10.5			≥0.6 but < 0.7	7				
≥32.0 but <33.5	12.0			≥0.7 but <	8				

				0.8					
≥33.5 but <35.0	13.5			≥0.8 but <0.9	9				
>= 35	15			≥ 0.9	10				

The average normal liquid assets build up has been reckoned around 28% constituted of minimum SLR (21.5%) largely represented by government securities and cash in hand, CRR (4%), and short term funds (upto a tenor 30 days) with other banks (2.5%).

4.14 In order to make the rating model more futuristic and make the premium capture the future risks, a point was raised whether trends of some important parameters be studied for capturing the direction of risk and used as model inputs. However, after a detailed discussion, it was decided not to complicate the model at this stage and consider the same in future once the model stabilises.

Rating Review

4.15 The proposed DPS System recommends adoption of transparency in the rating process (Chapter 3). The member banks would therefore be able to assess themselves even before receiving the rating communication from the Corporation. The Committee did not rule out the possibility of errors creeping in while the rating score is being calculated and member bank appeals for the rating review. The basis of appeal may also be an error in the quantitative information provided by the member bank. To deal with the situation, the *Committee recommends that Corporation may institute a rating review system for member banks. Rating calculation may be subjected to a review on receipt of an appeal from a member bank. The appeal may be submitted within the time period prescribed after the score/rating is communicated to the member bank. Notwithstanding the appeal, the*

requesting bank must pay the premium on or before the due date for the relevant insurance period. (Recommendation 25).

Classification Methods

4.16 The Committee discussed the two key approaches viz. Percentile Method and Benchmark Method, in classification of banks into different risk categories based on their aggregate RPs.

4.17 Under percentile method, percentiles and percentile ranks are frequently used as indicators of performance. Percentiles and percentile ranks provide information about how a person or thing relates to a larger group. They however fail to appreciate the significance of a score on standalone basis. A DIA's risk is also a function of varying general economic conditions. Therefore, in a weak economic scenario or in a downturn, all the key parameters would deteriorate but the significance of deterioration in absolute scores would go unappreciated in a percentile method. Similarly, in good times, in spite of good performance by all banks, the model would penalise banks despite having improved their financial position.

4.18 In the Benchmark based Method, pre-determined levels or benchmarks in the score ladder are used to classify the objects into different groups and the benchmarks/levels are supposed to remain static in varying economic conditions unless changed after a conscious review.

4.19 *The Committee considered the pros and cons of the two approaches. The Committee also observed that as per the practices elsewhere, DIAs have mostly used benchmark based methods in grouping. The Committee accordingly decided to go in for Benchmark based approach in classifying the banks. (Recommendation 26)*

Benchmarks and Risk Categories

4.20 The Committee decided to assess the risk assumed by a bank based on total RPs assigned to it. It was also decided to apply benchmark RPs to classify the banks into various risk zones according to increasing order of risks assumed. ***Accordingly, banks will be classified into low risk, moderate risk, medium risk and high risk zones as per the criteria presented below:***

> (i)   *Low Risk (LR) banks - banks with total RPs 80 and above;*
>
> (ii)   *Moderate Risk (MoR) banks - banks with total RPs 65 and above but below 80;*
>
> (iii)   *Medium Risk (MeR) banks - banks with total RPs 50 and above but below 65;*
>
> (iv)   *High Risk (HR) banks - banks with total RPs below 50;*

Benchmarks proposed above are in tune with the ones used internationally.
(Recommendation 27)

Simulation

4.21 One of the terms of reference for the Committee was to recommend a matrix of premium rates corresponding to risk-ratings in a manner that there was least disturbance to the levels of existing premium inflows. For this exercise, the Committee recognised that it should categorise the banks into different risk groups based on the proposed rating model and discover the appropriate premium rates to achieve the objectives of this term of reference.

4.22 The Committee also took cognisance of the fact that DICGC's membership was large in number and varied in characteristics. The Committee therefore adopted a sample based approach for simulation exercise. The Committee felt the need to capture 90% or above of the assessable deposits through the sample. It found that the kind of data required for the model was more readily available in respect of all scheduled commercial banks and scheduled urban cooperative banks with the respective supervisors. The Committee therefore decided to restrict the

simulation exercise to these banks. The Committee selected a sample of 87 commercial banks and 50 scheduled UCBs. These banks together, captured 92% of total assessable deposits as on March 31, 2014. The banks in sample were subjected to evaluation under the rating model proposed and the model generated a frequency distribution of banks under broad categories as per Table 6 (Chart 5) below.

Table 6: Frequency Distribution of Bank Groups as per RPs

(Scenario 1)

RP Range	Zone	Frequency Distribution
<50	HR	6
50 - 65	MeR	28
65-80	MoR	41
=>80	LR	62
Total		137

Chart 5: Frequency Distribution of Bank Groups as per RPs

(Scenario 1)
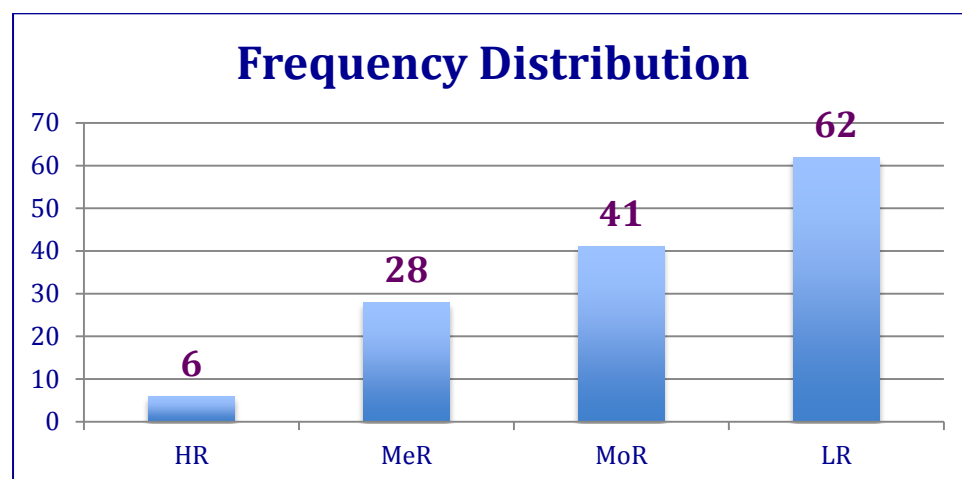
The distribution reveals a mixed pattern among the various banking groups with foreign banks faring among the best.

Premium Rates and Spreads

4.23 The Committee argued that premium should progress along the rating scale in a curvilinear manner so as to build up an incentive in the form of material gain through premium saving if a bank improved to better risk category. ***Committee accordingly recommends the following premium rate structure (Table 7, Chart 6) with a rising step up as the rating deteriorates.***

Table 7: Premium Rates and Spreads

Rating	Base Premium Rate* (paise % pa)	Multiplicative Factor*	Effective PremiumRate	Step Up
(1)	(2)	(3)	(4)=(2)*(3)	
LR	10.00	0.95	9.5	-
MoR	10.00	1.00	10.0	0.5
MeR	10.00	1.10	11.0	1.0
HR	10.00	1.25	12.5	1.5

* For discussion on Base Premium Rate and Multiplicative Factor, please refer to paragraph 3.17

Chart 6: The Premium Rate Curve
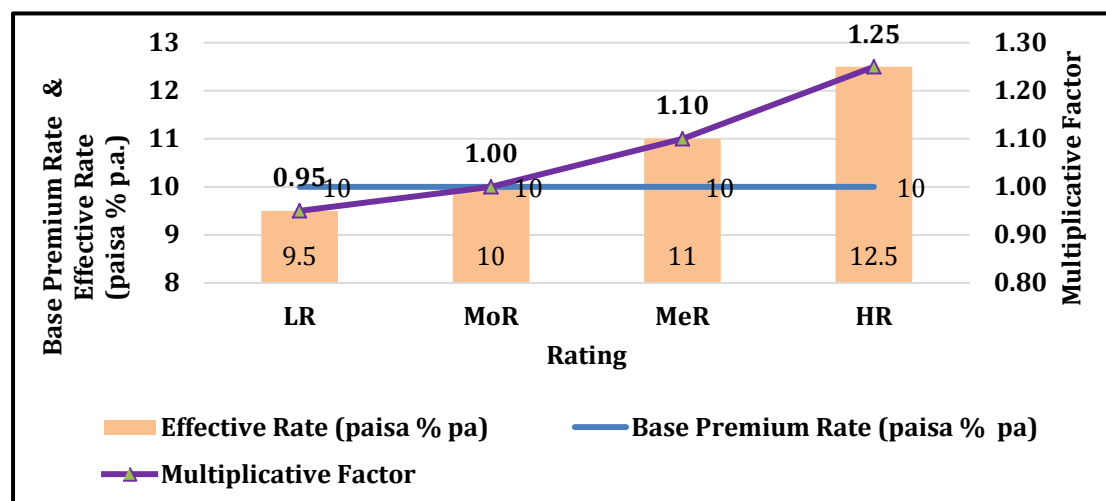
(Recommendation 28)

4.24 The Committee worked on the classification of the sample based on the financial results of banks as on March 31, 2014. As recommended in Chapter

3, the rating discovered based on the financial results of March 31, 2014 would hypothetically apply to the insurance period Oct. 2014 – Sep. 2015. Based on this principle, the Committee applied the above rates in respect of the banks in the sample and observed the following results (Table 8).

Table 8: Changes in Premium Collectible for the Half Year October 2014 to March 2015 (Amount in Rs Mn)
Scenario I (Proposed)

Risk Category	LR	MoR	MeR	HR	Total
Premium at Existing Rates	9,409	22,001	7,494	30	38,934
Premium at Revised Rates	8,938	22,001	8,244	37	39,220
Excess (+)/Short (-)Collection (%)	-5.00	0.00	10.00	25.00	+0.73

It is observed therefrom that the Corporation would be collecting a small excess of 0.73%as premium.

Assigning Premium Categories during Transition

4.25 *In the context of the transition, the Committee recommends that in the first year of implementation, banks could be given a concession of 5 points in categorizing them as per their respective scores as under:*

   (i)   Low Risk (LR) banks - banks with total RPs 75 and above;

   (ii)   Moderate Risk (MoR) banks - banks with total RPs 60 and above but below 75;

   (iii)   Medium Risk (MeR) banks - banks with total RPs 45 and above but below 60;

   (iv)   High Risk (HR) banks - banks with total RPs below 45;

(Recommendation 29)

Transition would help banks to take note of the disadvantages of being high in the risk category and therefore provide one year to improve their financials.

4.26 The application of relaxed standards results in the following classification of the banks in the sample (Table 9, Chart 7).

Table 9: Frequency Distribution of Bank Groups as per RPs

(Scenario 2)

RP	Zone	Frequency Distribution
<45	HR	5
45 - 60	MeR	13
60-75	MoR	47
=>75	LR	72
Total		137

Chart 7: Frequency Distribution of Bank Groups as per RPs
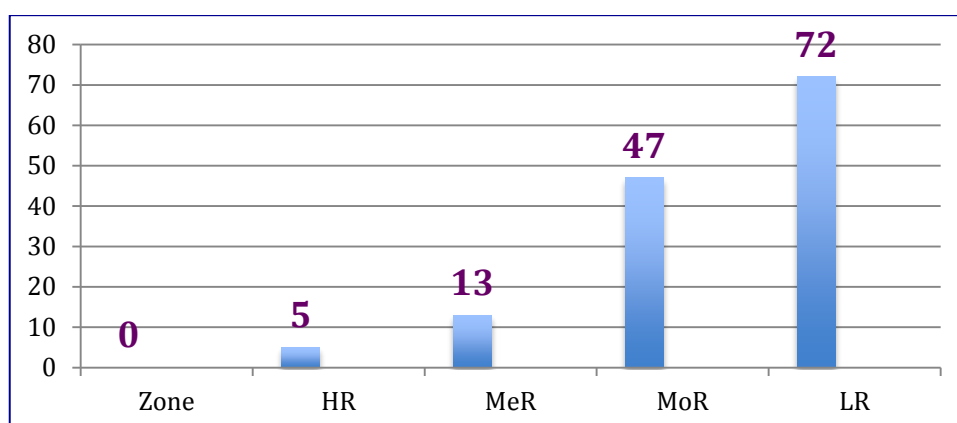
The changes in the premium accruing to the DICGC are as under:

Table 10: Scenario 2 (Benchmark relaxed for Year 1)

Risk Category	LR	MoR	MeR	HR	Total
Premium at Existing Rates	13,230	22,892	2,794	17	38,933
Premium at Revised Rates	12,568	22,892	3,074	21	38,557
Excess (+)/Short (-)Collection %	-5.00	0.00	10.00	+25.00	**-0.97%**

It is observed that there would be a small **under collection** of premium by 0.97% from banks in the sample.

Reserve Ratio Target and Premium Rates

4.27 As stated in Chapter 3, the Corporation is striving to reach an informal target Reserve Ratio of 2.5, which as on 31 March 2015 stood at 1.93. There is a need to adopt a Target Reserve Ratio on a more scientific basis. The target for Reserve Ratio in general should, at minimum, cover the potential losses, as deposit insurance agency may suffer under normal circumstances. Internationally, the DIAs that have set up the Reserve Ratio targets have largely adopted two approaches while doing so – (1) Historical Loss Method and (2) Credit Portfolio Approach. The Target Reserve Ratio should also be dynamic so as to be responsive to evolving banking conditions, be these be bank specific or general. It may therefore be re-assessed periodically that it reflects the contemporary insurance risk of the Corporation. **The Committee therefore recommends the Corporation too should work towards setting up Target Reserve ratio after a due process and it is subjected to periodic review so that it remains current and is reflective of Corporation's ongoing insurance risk.** *(Recommendation 30)*

4.28 **Once the Target Reserve ratio is achieved, there would be case for having a relook at the premium rates. the Corporation may revisit the premium rates and if the need be, moderate them to appropriate levels while ensuring that the Target remains achieved on a continuous basis. Similarly, in case the Reserve ratio falls below the Target, the premium rates may be revised upward to restore the Reserve Level to the Target**. *(Recommendation 31)*

Chapter

5

Summary of Recommendations

5.1 The Committee reviewed the literature on international practices about designing and operating the differential premium systems as also the models in use. While deliberating on the development of an appropriate design for differentiating banks, the Committee also placed reliance on the guidance available from the IADI through its various papers and publications. The Committee held elaborate discussions and identified the important considerations, which were needed to be kept in view while designing and instituting the differential premium system. Taking these into account, the Committee has made certain recommendations in Chapters 3 and 4 for developing a Differential Premium System for banks in India. Summary of these recommendations is presented in the following paragraphs.

Recommendation 1

5.2 The Committee debated upon the magnitude of task likely to devolve on the Corporation in finalising the rating process and the heterogeneity in the different classes of banks in the context of their adaptive capabilities. Having regard to these aspects, the Committee recommends a simple and easy to understand, but a robust rating model capturing key risk parameters should be put in place. *(Paragraph 3.5)*

Recommendation 2

5.3 Placing reliance on international practices, IADI guidance and also the merits of retaining visible distinction among the rating categories, the Committee recommends that number of categories for assigning premium rates should be limited to four or five. *(Paragraph 3.7)*

Recommendation 3

5.4 Due to qualitative inputs not being readily available and the Corporation's own difficulties in collecting such inputs across the entire universe of banks, the Committee came to the view that the input variables could be designed based on the annual audited/published data of the individual banks for a large part, say, weighing upto 90% in the overall score. Other information like conduct of a member in dealings with the Corporation, eligibility for access to Reserve Bank's liquidity window, regulatory penalties, adoption of IT and other soft information may constitute remaining 10%.   *(Paragraph 3.8)*

Recommendation 4

5.5 Committee was of the view that any model to be used for rating should have predictive power of the risk of insured banks, at least for the near future which is feasible only through forward looking assessments like risk based supervisory assessments. The Committee, taking note of the practice of quite a few jurisdictions (Canada, Malaysia, Turkey, US) in which supervisor's rating is an important input, recommends that the Corporation may consider initiating a dialogue with the Supervisors for entering into a formal arrangement under which the supervisors could share their ratings with the Corporation under appropriate safeguards of confidentiality and usage, in due course of time by which the supervisors would have subjected all the banks to the forward looking risk assessment. At that stage, Corporation can refine the rating model further and use supervisory rating as an additional input in the rating process. *(Paragraph 3.9)*

Recommendation 5

5.6 For operationalization of the rating system, the Committee realised that supervisory information sources, particularly in respect of cooperative banking sector have not yet stabilised. The Committee therefore recommends that the Corporation institutes its own appropriate MIS for the member banks for collecting model related data. *(Paragraph 3.10)*

Recommendation 6

5.7 For the sample validation of data submitted by the banks in connection with rating process, the Committee recommends that the supervisors, on the lines of verification of returns currently submitted by the banks to the Corporation, could extend their checking to the information submitted by the banks in the context of rating also, during the course of their inspections as and when taken up, and furnish a feedback to the Corporation. *(Paragraph 3.11)*

Recommendation 7

5.8 The Corporation should also utilise the supplementary information available from sources easily accessible, to upgrade its market intelligence about general wellbeing of the member banks and also to use this information to validate the Corporation's assessment of banks. For example, the peer reviews on commercial banks and scheduled UCBs being prepared by regulatory/supervisory departments would provide a good indication about banks' current state and the likely path of future. The Committee also suggests obtaining appropriate inputs from NABARD in respect of RRBs, State and District Central Cooperative Banks. *(Paragraph 3.12)*

Recommendation 8

5.9 In order to promote the sanctity of the Differential Premium System, the Committee recommends that there should not be any forbearance for non-receipt or late receipt of model related information from a bank and any such default should earn the bank a straight downgrade of rating by a notch and accordingly premium be charged at the corresponding rate. *(Paragraph 3.13)*

Recommendation 9

5.10 For a bank which has just started its operations, the Committee recommends that such a bank may be assigned a premium category corresponding to 'base premium rate' till it produces its first annual financial accounts. It is assumed that a new bank would produce its financial accounts at the first annual financial accounting date (currently 31 March), after the commencement of its operations. *(Paragraph 3.14)*

Recommendation 10

5.11 To handle a merger situation, the Committee recommends that merging entity will pay premium till the date of its deregistration by the Corporation, at the rates applicable to it, while post merger, the bank taking over will pay the premium applicable to it from the date of deregistration of merged entity till the next rating reset. *(Paragraph 3.15)*

Recommendation 11

5.12 For providing incentives in favour of better rating and dis-incentivising a lower rating, Committee recommends that the premium rates should move along the ratings ladder in geometric/curvilinear progression rather than arithmetic/linear progression. *(Paragraph 3.16)*

Recommendation 12

5.13 The Committee recommends rating discovery on annual basis, based on the annual audited data of the bank as on March 31 and accordingly annual reset of the premium rates. (*Paragraph 3.20)*

Recommendation 13

5.24 Having regard to the steps involved in the exercise, rating arrived as of March 31, should apply for the following October –September insurance period. *(Paragraph 3.21)*

Recommendation 14

5.15 Though the Committee decided that rating calculation and premium reset could be an annual exercise, the Committee was not averse to obtaining information for the model's inputs from the banks on a half yearly basis, to take advantage of the benefits accruing from tracking a bank's performance in the context of a possible unexpected deterioration in its performance, particularly in respect of the banks in the lowest or second lowest rating category in the latest available rating and the need for consequent remedial action*. (Paragraph 3.22)*

Recommendation 15

5.16 Committee examined the desirability of bringing in the pro-cyclicality in premium rates reset with the intention of collecting higher premium during the periods of good performance for faster build up the Reserve Fund, or a lower premium during periods of stress, but did not find it either feasible or desirable. *(Paragraph 3.23)*

Recommendation 16

5.17 The Committee, in the interest of transparency, recommends the key characteristics of the rating model be published in public domain. *(Paragraph 3.26)*

Recommendation 17

5.18 The rating process and results, within the Corporation, should be managed with due care of confidentiality. In the world outside the Corporation, only the rated bank should know its rating. The Committee observed that the confidentiality safeguards adopted by Reserve Bank with regard to their rating system could be looked at for instituting the confidentiality and usage requirements within the Corporation*. (Paragraph 3.27)*

Recommendation 18

5.19 The Committee also recommends that within a rated bank, rating should be known only to key/important personnel and should not be disclosed or used by the bank for any other purpose like canvassing of business, or any type of capital funding, etc*. (paragraph 3.28)*

Recommendation 19

5.20 Introduction of Differential Premium System is a major systemic change for the insured banks.   The Committee therefore recommends that transition be managed with due care. Appropriate consultations may be held with stakeholders like representative bodies of insured banks, supervisors, regulators and the government and a clear transition path is laid down. *(Paragraph 3.29)*

Recommendation 20

5.21 New classes of banks viz. Payment Banks and Small Finance Banks may start operating in due course. The Corporation would need to revisit the proposed rating model for examining the format and applicability to these classes of banks as and when these banks start operating. *(Paragraph 3.30)*

Recommendation 21

5.22 As the financial landscape and regulatory and supervisory norms are continuously evolving, Committee recommends that all the aspects of the rating system and premium collection be reviewed periodically, at a minimum of once in three years so that the rating system and methodology remain current and relevant. *(Paragraph 3.31)*

Recommendation 22

5.23 While keeping the model simple but with capability of capturing all-important risks on the balance sheet of a bank, Committee recommends a rating model adapted to CAMELS approach with following ingredients:

> (a) Capital Adequacy and quality of its composition (weight 25%),
> (b) Asset Quality (weight 25%),
> (c) Profitability (weight 20%)
> (d) Liquidity (weight 20%), and
> (e) Other information (weight 10%)

 (Paragraph 4.9)

Recommendation 23

5.24 The Committee recommends capturing risks through various sub-ingredients incorporated in the model so as to exhibit a higher objectivity.
(Paragraph 4.12)

Recommendation 24

5.25 The Committee recommends transparent rules for assigning Reward Points (RPs) for each sub-ingredient. *(Paragraph 4.13)*

Recommendation 25

5.26 The Committee recommends that the Corporation should institute a system of rating review to provide an opportunity to members if any of them desires and appeals for the rating calculation to be rechecked. Notwithstanding the appeal, the requesting bank must pay the premium on or before the due date for the relevant insurance period. (***Paragraph 4.15)***

Recommendation 26

5.27 The Committee examined two methods of classification of objects among different risk groups – percentile method and benchmark method. In the interest of the model capturing the risks and classifying the banks equally well in the varying economic conditions, Committee recommends a benchmark-based approach for classification. *(Paragraph 4.19)*

Recommendation 27

5.28 Keeping in view the earlier recommendation that restricting the number of risk categories to 4 or 5, the Committee recommends classification of banks in 4 risk categories as under:

(i)   Low Risk (LR) banks - banks with total RPs 80 and above;

(ii)   Moderate Risk (MoR) banks - banks with total RPs 65 and above but below 80;

(iii)   Medium Risk (MeR) banks - banks with total RPs 50 and above but below 65;

(iv)   High Risk (HR) banks - banks with total RPs below 50;

(Paragraph 4.20)

Recommendation 28

5.29 Based on the results of a simulation conducted across 87 commercial banks and 50 scheduled urban cooperative banks, together capturing 92% of assessable deposits and ensuring that the premium collection is not adversely affected, the Committee recommends following premium rate structure:

Rating (1)	Base Premium Rate (paise % pa) (2)	Multiplicative Factor (3)	Effective Premium Rate (4)=(2)*(3)	Step Up
LR	10	0.95	9.5	-
MoR	10	1	10	0.5
MeR	10	1.1	11	1
HR	10	1.25	12.5	1.5

(Paragraph 4.23)

Recommendation 29

5.30 For placing the banks on a transition path and enabling them an opportunity to improve their financials before the proposed classification rules set in, the Committee recommends application of relaxed classification rules for first year, as under:

(i)   Low Risk (LR) banks - banks with total RPs 75 and above;

(ii)   Moderate Risk (MoR) banks - banks with total RPs 60 and above but below 75;

(iii)   Medium Risk (MeR) banks - banks with total RPs 45 and above but below 60;

(iv)   High Risk (HR) banks - banks with total RPs below 45;

(Paragraph 4.25)

Recommendation 30

5.31 The Corporation has not yet set up a formal Reserve Ratio Target though it is working towards attaining an informally set level of 2.5%. The Committee recommends that the Corporation set up a Reserve Ratio Target on a scientific basis and strive to achieve the same. The Target Ratio should also be subjected to periodic review so that it remains updated for evolving banking conditions. *(Paragraph 4.27)*

Recommendation 31

5.32 Once the Target is reached, the Corporation may revise the premium rates downward without compromising on continuous maintenance of the target and may also raise the rates in case the Reserve Ratio falls below the target due to some event so as to restore it back to the target. *(Paragraph 4.28)*

DEPOSIT INSURANCE AND CREDIT GUARANTEE CORPORATION

Notification - Differential Premium for Banks

The Central Board of the Reserve Bank of India in the meeting held on October 16, 2014 felt that the Deposit Insurance and Credit Guarantee Corporation (DICGC) could "explore the possibility of putting in place a differential premium within the co-operative sector linking it to governance/risk profile of co-operative banks". The Board of DICGC in its meeting held on December 30, 2014 discussed the issue of differential premium and suggested that DICGC needs to work towards creating its own rating system to facilitate introduction of differential premium because of confidentiality issues involved in the use of supervisory ratings. The Board directed that in the background of the need for developing a rating system by the Corporation, the issues, including the rise in insurance cover for deposits may be revisited. In order to operationalise the introduction of risk based premium for the insured banks as also for the flow of information between regulatory/supervisory Departments of Reserve Bank of India (RBI) and DICGC, a 'Committee on Differential Premium for Banks' is being constituted. The Committee will have the following members.

Composition of the Committee		
Shri Jasbir Singh	Executive Director, DICGC	Chairperson
Shri. Rajesh Mokashi	Deputy Managing Director, CARE Ratings	Member
Smt. Meena Hemachandra	PCGM, DBS	Member
Smt. Suma Varma	PCGM, DCBR	Member
Shri. Sudarshan Sen	CGM-in-C, DBR	Member
Smt. Malvika Sinha	CGM, DCBS	Member
Dr. S. Rajagopal	CGM, FSU	Member
Dr.A.R. Joshi	Adviser, DSIM	Member
Shri. Sonjoy Sethee	CFO, DICGC	Member
Smt. Jaya Mohanty	Adviser, DICGC	Secretary

2. The Terms of Reference of the Committee shall be:

i. To devise and recommend a model of risk assessment for banks, both commercial and co-operative.

ii. To make recommendations for adapting the model of risk assessment so derived to the calculation of premium to be paid to DICGC.

iii. To study international methodology of risk based premium to ensure that the rating system developed is in tandem with international best practices.

iv. To make recommendation for institutionalising the flow of information between the supervisory Departments of RBI, insured banks and the DICGC at appropriate frequencies to facilitate the calculation of the risk rating.

v. To recommend a matrix of premium rates corresponding to risk-ratings in a manner that there is least disturbance to the existing premium inflows.

vi. To make recommendations for frequency and timing of revision in premium rates and relating the timing of revision to appropriate risk-rating reference date.

The Secretariat will be located in the DICGC, to be headed by Director (RPIC).

3. The Committee will submit the Report by June 30, 2015.

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sd/-
(R. Gandhi)
Chairman
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March 31, 2015