CHAPTER 7

Portfolio Management

7.1 Background
7.2 Basel II on Portfolio Management
7.3 RBI Guidelines on Portfolio Management and Exposure Limit
7.4 Methodology
7.5 Analysis and Findings
7.6 Discussions and Conclusion
Chapter 7
Portfolio Management

7.1 Background

While the focus on individual credits in managing the overall credit risk is important, banks also need to have in place a system for overall composition and quality of the credit portfolio. Portfolio management is a tool for credit risk management. The need for credit portfolio management emanates from the necessity to optimize the benefits associated with diversification and reduces the potential adverse impact of concentration of exposures to a particular borrower, sector or industry. The portfolio approach would capture the risk of the entire credit portfolio.

Concentrations are probably the single most important cause of major credit problems. Credit concentrations are viewed as any exposure where potential losses are large relative to the bank's capital, its total assets or, where adequate measures exist, the bank's overall risk level. Credit concentrations can further be grouped roughly into two categories:

- Conventional credit concentrations would include concentrations of credits to single borrowers or counterparties, a group of connected counterparties, and sectors or industries.
- Concentrations based on common or correlated risk factors reflect subtler or more situation-specific factors.

Concentrations can, thus, arise whenever a significant number of credits have similar risk characteristics. Concentration occurs when, among other things, a bank's portfolio contains a high level of direct or indirect credits to i) a single counterparty, ii) a group of connected counterparties, iii) a particular industry, iv) a geographic region, v) an individual foreign country or a group of countries whose economies are strongly interrelated, vi) a type of credit facility, or (vii) a type of collateral. Concentrations can also occur in credits with the same maturity. Concentrations can stem from more complex or subtle linkages among credits in the portfolio. A high level of concentration exposes the bank to adverse changes in the area in which the credits are concentrated. Portfolio management balances and contains overall portfolio risk by anticipating, constantly...
assessing and controlling exposure to each of the six areas mentioned earlier (Basel, 1999).

In the light of the above background, this study has tried to answer research question 2 i.e., To what extent the banks use the concept of portfolio management while evaluating a loan proposal to take care of the credit risk involved?

This research question has been taken up keeping in view the importance of prudent portfolio management in managing and controlling credit risk involved in the bank’s loan portfolio.

The rest of the chapter is organized in the following manner: section 7.2 highlights the Basel II guidelines on portfolio management, section 7.3 presents the guidelines of RBI. Section 7.4 describes the methodology used, section 7.5 presents the analysis and findings and section 7.6 concludes.

7.2 Basel II on Portfolio Management

Credit concentrations result in disproportionate allocation of fund to a few borrowers, sectors or clusters with an excessive reliance on a limited few attributes on credit proposition for e.g., long satisfactory track record of borrower, scope of growth of particular activity/sector or availability of risk mitigants. Increase in risk-sensitive assets caused by increase in credit concentration disturbs the equilibrium in credit risk management across various class/type of loan assets.

Basel Committee has observed that banks prefer credit concentration owing mainly to the following:

- achieve the objective of market leadership in credit expansion
- prefer to specialize lending to certain product category
- prefer to focus on hot and rapidly growing industry
- post-disbursement and monitoring and follow-up of few accounts concentrated on product or borrower criteria may often appear more convenient
- major portion of banks’ business is often spread over a particular geographical area
- Income factor remains a major consideration of banks. Through the route of few large accounts, banks may earn more in terms of yield with lower servicing cost
Of the 16 Principles of Credit Risk Management put forward in the Basel Committee Consultative Document (1999), the following principles with other sound lending principles facilitate a bank’s effort towards building up of a healthy credit portfolio of individuals/ group accounts/ sectors within tolerable limit from credit concentration angle.

**Principle 4**: Banks must operate under a sound credit-granting criteria. These criteria should include a clear indication of the bank’s target market and a thorough understanding of the borrower or counterparty, as well as the purpose and structure of the credit, and its source of repayment.

Banks should have procedures to identify situations where, in considering credits, it is appropriate to classify a group of obligors as connected counterparties and, thus, as a single obligor. This would include aggregating exposures to groups of accounts exhibiting financial interdependence, including corporate or non-corporate, where they are under common ownership or control or with strong connecting links (for example, common management, familial ties).

**Principle 5**: Banks should establish overall credit limits at all the level of individual borrowers and counter parties, and groups of connected counter parties that aggregate in a comparable and meaningful manner different types of exposures, both in the banking and trading book, and on & off the balance sheet.

An important element of credit risk management is the establishment of exposure limits on single counterparties and groups of connected counterparties. Such limits should be frequently based in part on the internal risk rating assigned to the borrower or counterparty. Limits should also be established for particular industries or economic sectors, geographic regions and specific products.

**Principle 8**: Banks should have in place a system for the ongoing administration of their various credit risk-bearing portfolio.

The credit files should contain all the necessary information to ascertain the current financial condition of the borrower or counterparty as well as sufficient information to track the decisions made and the history of the credit. For e.g., the credit files should include current financial statements, financial analysis and internal rating documentation, internal memoranda, reference letters and appraisals. The loan review function should determine that the credit files are complete and that all loan approvals and other necessary documents have been obtained.
Principle 11: Banks must have information systems and analytical techniques that enable management to measure the credit risk inherent in all on- & off-balance sheet activities. The management information system should provide adequate information on the composition of the credit portfolio, including identification of any concentration of risk.

Banks should be able to analyze credit risk at the product and portfolio level in order to identify any particular sensitivities or concentrations. The effectiveness of a bank's credit risk measurement process is highly dependent on the quality of management information systems. In particular, information on the composition and quality of the various portfolios should permit management to assess quickly and accurately the level of credit risk that the bank has incurred through its various activities and determine whether the bank's performance is meeting the credit risk strategy.

Banks should monitor actual exposures against established limits. It is important that banks have a management information system in place to ensure that exposures approaching risk limits are brought to the attention of senior management. All exposures should be included in a risk limit measurement system. The bank’s information system should be able to aggregate credit exposures to individual borrowers and counterparties and report on exceptions to credit risk limits on a meaningful and timely basis.

Banks should have information systems in place that enable management to identify any concentrations of risk within the credit portfolio. Business line managers and senior management to ensure that it is sufficient to the complexity of the business should review the adequacy and scope of information on a periodic basis. Increasingly, banks are also designing information systems that permit additional analysis of the credit portfolio, including stress testing.

Principle 12: Banks must have in place a system for monitoring the overall composition and quality of the credit portfolio.

In many instances, due to a bank’s trade area, geographic location or lack of access to economically diverse borrowers or counterparties, avoiding or reducing concentrations may be extremely difficult. Banks may need to make use of alternatives to reduce or mitigate concentrations. Such measures can include pricing for additional risk, increased holdings of capital in order to reduce dependency on a particular sector of the economy or group of related borrowers. Other measure could include loan sales, credit derivatives, securitization programs and other secondary loan markets. When banks
decide to use these mechanisms, they need to first have policies and procedures, as well as adequate controls, in place.

Basel II has emphasized the utility of controlling undue credit risk concentration as a cautionary measure for averting possible severe losses by way of bad debts. Hence, banking supervisors should have specific regulations limiting concentrations to one borrower or set of related borrowers, and should also expect banks to set much lower limits on single-obligor exposure. While small banks may find it difficult not to be at or near limits on concentrations, very large banks must recognize that, because of their large capital base, their exposures to single borrowers can reach imprudent levels while remaining within regulatory limits.

### 7.3 RBI Guidelines on Portfolio Management and Exposure Limit

To be Basel II compliant, Reserve Bank of India has been exercising off-site/on-site supervisory watch-dog role on a regular basis for the well-being of the system. Each bank is required to follow various prudential guidelines in total. As a prudential measure aimed at better risk management and avoidance of concentration of credit risks, the Reserve Bank of India has advised the banks to fix limits on their exposure to specific industry or sectors and has prescribed regulatory limits on banks' exposure to individual and group borrowers in India. In addition, banks are also required to observe certain statutory and regulatory exposure limits in respect of advances against/investments in shares, debentures and bonds.

RBI has already issued number of prudential guidelines to banks for controlling concentrations. In this respect, ceilings have been prescribed as under -

i) Single borrower (i.e. to any one borrower): Maximum exposure at any one time should not exceed 15% of concerned banks’ capital fund. Credit exposure to single borrower may exceed the exposure norm of 15 per cent of the bank's capital funds by an additional 5 per cent (i.e. up to 20 per cent) provided the additional credit exposure is on account of infrastructure.

ii) Group borrower (various borrower accounts connected with each other): Maximum exposure at any one time should not exceed 40% of concerned bank’s capital fund. Credit exposure to borrowers belonging to a group may exceed the exposure norm
of 40 per cent of the bank's capital funds by an additional 10 per cent (i.e. up to 50 per cent), provided the additional credit exposure is on account of extension of credit to infrastructure projects.

iii) Substantial exposure: The sum total of exposure in respect of single borrower in excess of 10%-15% of capital funds should not exceed 600 - 800% of bank's capital funds.

iv) Credit Exposure to industry and certain sectors: Apart from limiting the exposures to individual or group of borrowers, as indicated above, the banks may also consider fixing internal limits for aggregate commitments to specific sectors e.g. textiles, jute, tea, etc. so that the exposures are evenly spread over various sectors. These limits could be fixed by the banks having regard to the performance of different sectors and the risks perceived. The limits so fixed are to be reviewed periodically and revised, as necessary.

v) Exposure to capital markets: The bank's aggregate exposure to the capital markets covering direct investment by a bank in equity shares, convertible bonds and debentures and units of equity oriented mutual funds; advances against shares to individuals for investment in equity shares (including IPO), bonds and debentures, units of equity-oriented mutual funds etc and secured and unsecured advances to stockbrokers and guarantees issued on behalf of stockbrokers and market makers; should not exceed 5 per cent of their total outstanding advances (including Commercial Paper) as on March 31, of the previous year. This ceiling of 5 per cent prescribed for investment in shares applies to total exposure including both fund based and non-fund based to capital market in all forms. Within this overall ceiling, banks investment in shares, convertible bonds and debentures and units of equity oriented mutual funds should not exceed 20 percent of its net worth. The banks are required to adhere to this ceiling on an ongoing basis.

vi) Exposure on Unsecured Advances: The instruction that banks have to limit their commitment by way of unsecured guarantees in such a manner that 20 percent of the bank's outstanding unsecured guarantees plus the total of outstanding unsecured advances do not exceed 15 percent of total outstanding advances has been withdrawn to enable banks' Boards to formulate their own policies on unsecured exposures. Simultaneously, all exemptions allowed for computation of unsecured exposures also stand withdrawn. With a view to ensuring uniformity in approach and implementation, 'unsecured exposure' is defined as an exposure where the realizable value of the security,
as assessed by the bank /approved valuers / Reserve Bank’s inspecting officers, is not more than 10 percent, ab-initio, of the outstanding exposure. ‘Exposure’ includes all funded and non-funded exposures (including underwriting and similar commitments). ‘Security’ means tangible security properly charged to the bank and will not include intangible securities like guarantees, comfort letters etc.

iv) Exposures to Leasing, Hire Purchase and Factoring Services: Maximum 10% of bank’s total advances.

Further for averting any significant financial violence in the Indian banking system RBI, as the supervisory body should include the following aspects in its guidelines to the banks –

- Align the single borrower exposure ceiling to the credit rating of the borrower. By this, exposure ceiling (within regulatory maximum) will be more risk sensitive.
- Refine the concept of group exposure. Presently, commonality of ownership and management is the guiding criteria. However, connected counterparties may also be related by common research and development, marketing or any combination thereof (Basel II, 1999).

Exposure management is no doubt an effective tool for controlling credit risk concentration. But it must be supported by articulate credit appraisal, monitoring and follow up by banks.

7.4 Methodology

Keeping the background in mind, the following two aspects of portfolio management has been investigated in this research work for addressing the second research question.

1) To what extent the banks limit their exposure/concentration to an industry and to a geographical region?

2) To what extent the bank re-adjusts the rating score of a proposal (the re-evaluation of risk) reflecting the bank’s effort to minimize risk through diversification across industry and geographical region?

Exposure limits are needed in all areas of the bank’s activities that involve credit risk. These limits help to ensure that the bank’s credit-granting activities are adequately diversified. Effective measures of potential future exposure are essential for the establishment of meaningful limits, placing an upper bound on the overall scale of
activity with, and exposure to, a given counterparty, based on a comparable measure of
exposure across a bank's various activities. The banks information system should be able
to aggregate credit exposures to individual borrowers and counter parties and report on
exceptions to credit risk limits on a meaningful and timely basis. In order to manage the
magnitude of credit risk, banks need to have properly documented policies towards
portfolio management. Thus, to find out the sample banks' policy towards prudential
exposure, the loan policy of the bank was scrutinized and their exposure norms, if any, in
the following areas was noted:

a. Single Borrower
b. Group Borrower
c. Industry
d. Geographic region
e. Facility
f. Borrower Constitution

To find out whether the banks re-evaluate risk of a proposal, credit officials in the
regional offices were interviewed.

7.5 Analysis and Findings

7.5.1 Prudential Exposure Limits

Table 7 shows the findings of the extent of exposure / concentration. The table
shows that banks, in general, follow the RBI prudential norms in respect of single and
group borrower. As a result, the exposure limit to single borrower and group borrower is
same for all banks with exception found in the case of State Bank of India (SBI) where
exposure limit in terms of percentage is much lesser. This may be due to the fact that
exposure limit is expressed as a percentage of Tier I and Tier II capital which is too large
for SBI compared to the other public sector banks. Hence, exposure limit in figure may
not be low even for single borrower. In case of infrastructure projects of specified
category, every bank has provision for relaxation of the limits for single and group
borrowers up to 5% and 10% respectively. Thus by adopting these exposure limits, banks
can prevent concentration of their credit to a single or group borrower to some extent
only. Substantial exposure limit has also been imposed by the banks so as to put a ceiling
on the number of single or group borrowers in the portfolio whose exposure has already
exceeded the threshold limit. The total percentage varies from 600% to 800%.
Table 7: Policy on Portfolio Management – Prudential Exposure Limits of the Sample Banks

<table>
<thead>
<tr>
<th>Exposure norms</th>
<th>UCO</th>
<th>UBI</th>
<th>CAN</th>
<th>PNB</th>
<th>ALLA</th>
<th>UNI</th>
<th>VIJ</th>
<th>SBI</th>
<th>CBI</th>
<th>AN</th>
<th>IOB</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Single Borrower</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>a. Single Borrower</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>b. Single Borrower (infra)</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>II. Group borrower</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>c. Group Borrower</td>
<td>40%</td>
<td>40%</td>
<td>40%</td>
<td>20%</td>
<td>40%</td>
<td>40%</td>
<td>40%</td>
<td>-40%</td>
<td>40%</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>d. Group Borrower (infra)</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>30%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>III. Substantial Exposure</td>
<td>ns</td>
<td>600%</td>
<td>ns</td>
<td>100%-300%</td>
<td>Y</td>
<td>600-800%</td>
<td>600%</td>
<td>600%</td>
<td>Y</td>
<td>400</td>
<td>500%</td>
</tr>
<tr>
<td>IV. Industry (%</td>
<td>5%</td>
<td>1-18</td>
<td>ns</td>
<td>10%</td>
<td>2-22</td>
<td>10%</td>
<td>5%</td>
<td>15</td>
<td>Y</td>
<td>Y</td>
<td>2-20</td>
</tr>
<tr>
<td>V. Geographic region</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI. Country</td>
<td>Yb</td>
<td>ns</td>
<td>Yb</td>
<td>ns</td>
<td>ns</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VII. Facility-wise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Term Loan</td>
<td>ns</td>
<td>100cr</td>
<td></td>
<td>ns</td>
<td>35%</td>
<td>35%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Working Capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIII. Constitution</td>
<td>Y</td>
<td>ns</td>
<td>Y</td>
<td>ns</td>
<td>Y</td>
<td>Y</td>
<td>ns</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>a. Proprietorship concerns</td>
<td>ns</td>
<td>5cr</td>
<td>30cr</td>
<td>10cr</td>
<td>10cr</td>
<td>20cr</td>
<td>ns</td>
<td>ns</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| b. Partnership firms | ns | 20cr | 75cr | 25cr | 20cr | 80cr | ns | ns | 10%
| c. Trusts | ns | 20cr | | | | | ns | 3%
| IX. Collateral type | | | | | | | | | | | |
| X. Sensitive Sector | Yb | Yb | | 4% | 10% |
| a. Real Estate | 200cr | 4% | 2% | 10% | 3% | 5% | 10% | Yb | Yb | 5%
| b. Sensitive commodity | Yb | Yb | | 5% | Yb | Yb | Yb |
| c. Capital Market | 5% | 5% | Y | 5% | 5% | 5% | Yb |
| xi. Unsecured advance | 15% | 15% | 20% | 20% | 20% | 25% | 25% | Yb | Yb |

1. % of total fund based exposure 2. % of total bank credit 3. % of capital funds 4. % of total outstanding advance of previous year 5. % of total industry credit 6. % of single borrower limit 7. % of total domestic advances 8. % of outstanding advances 9. % of aggregate exposure of ASCB to each industry/sector

a. Items indicated under Principle 12 of the Basel Committee document on Principles for Management of Credit Risk b. As per RBI guidelines c. other than individual housing loans and indirect housing finance
The performance of a company largely depends on the performance of the industry as a whole and to some extent on the performance of the economy. Companies within an industry are influenced by a set of industry-specific external factors and macroeconomic factors like government policies and the legal framework, stock market movements, market condition, etc. As a result, companies within an industry tends to move in tandem and a few industries, too shows co-movement. Hence, too much concentration in a single industry or group of industries may increase the portfolio risk. To reduce the portfolio risk it is essential to limit the exposure to a particular industry. All the banks limits exposure to an industry with ceiling ranging from 1% to 15%. In general, banks keep on rebalancing the industry exposure limit from time to time. The rebalancing is more in the case of sensitive sector and banks prefer to give low exposure to this sector.

The Basel Committee document on Principles for the Management of Credit Risk points out that a high level of direct or indirect credits to a particular geographic region within a country also leads to concentration (Section 7.1). Credit risk varies with regions; entailing high risk in regions where infrastructure is poor or region is politically unstable and socially disturbed with the existence of extremism. Hence, the credit risk models should take this factor into account. It was found that there is no provision by the banks in regard to exposure limit to a particular geographic region.

RBI's guidelines limit exposure on any country at the level of its regulatory capital excepting in case of countries with Insignificant Risk where no limit is stipulated. The policy guideline is applicable only in respect of countries where the bank has exposure of two percent or more of its assets. Banks generally follow the RBI guidelines for setting the limits for various categories such as participation in Indian joint ventures abroad, export, etc. Taking this into account, few of the banks have fixed country exposure limits based on the risk classification of the country.

As per the Basel II, limit should also be fixed facility-wise with different limit for term loan, working capital, bank guarantees, etc. so as to diversify the risk across the different facilities. Considering this, banks have fixed the limit for term loan facility excluding limit on other facilities. Term loan involves commitment for medium and long-term and hence entail higher risk than the other facilities like working capital where loans are committed for short term and performance of accounts are reviewed before renewal.
of the same. Further, the collateral security associated with the working capital loan are more liquid than that of term liabilities justifying the limit imposed by bank on term loan.

Indian banks also limit their exposure considering the constitution of the borrower where the borrowers have been classified as corporate and non-corporate borrowers including individuals, proprietary concerns and partnership concerns. In addition to the limit imposed to corporate borrowers indicated above, banks have imposed separate limits for proprietary concerns, partnership concerns and trusts. Since the partnership and proprietary firms, being small, are more risky, limit imposed is more stringent.

Further, the credit risk associated with some of the sectors are vulnerable to the frequent fluctuation in the demand-supply position, highly sensitive to the day-to-day news on company, industry and economy, high degree of asset price volatility, etc. These sectors viz., Real Estate, Capital Markets, Sensitive commodities listed by RBI, are categorized as sensitive sector and accordingly stringent prudential limits has been imposed by the banks as per RBI guideline to minimize their substantial impact on the damage of the overall portfolio. Hence, the exposure limit fixed is very low and varies from 4% to 10% in the banks.

7.5.2 Re-adjustment of Rating Score

Regarding re-adjustment of the rating score of a proposal (the re-evaluation of risk) banks apparently do not adjust the rating score on account of high exposure to the particular sector/category it belongs. The usual procedure is to reject the proposal instead of readjusting the score if the bank’s exposure to the sector crosses the exposure norms set for different sectors/ categories. Apart from looking into the exposure limit, individual proposals are considered in isolation while evaluating a particular proposal.

7.6 Discussions and Conclusion

Banks, in general, follows the guidelines of RBI in respect of portfolio exposure to the various sectors. By adhering to the prudential norms in respect of exposure limit, banks manage the portfolio risk and avoid credit concentration to a particular sector. This however, may not lead to diversification and reduction of risk of the portfolio for the following reasons.

i) Suppose a bank sticks to the prudential norms and finance proposals with high risk. In that case the strategy will not help in reduction of risk.
ii) Suppose banks diversify to various sectors which are highly positively correlated, this type of diversification across sectors may not reduce the portfolio risk. Diversification across sectors will be helpful only when sectors are independent or they are negatively correlated.

Policy Guidelines on portfolio exposure appears to be silent on the above issues. Banks should look into this matter and the following aspects should be incorporated in the new policies.

- Align exposure limit to the credit rating of the borrower. Different exposure limits should be set for different risk classes. For e.g., in case of single borrower exposure ceiling, banks may fix 15% of the capital fund for say, AAA/AA rated borrowers, 12.5% for A rated borrowers, 10% for BB/B rated borrowers, 9% for C rated borrowers and 8% for D rated borrowers. Similarly, for group borrowers too, ceilings may be aligned to the rating of the borrowers. This has already been incorporated by Punjab National Bank and Vijaya Bank.

- Banks should also undertake a study on the industry/sector correlation and also examine the co-movement of the sectors in response to the specific economic/political events. And accordingly, the policy for allocation of exposure on various industry/sectors in the portfolio should be developed based on the study. The concept of correlation amongst the industries/companies belonging to a group should be applied while setting exposure limit to the group borrowers.

- There should be provision for re-adjustment of ratings of individual proposals based on portfolio exposure. Generally, well-diversified portfolio consists of mainly, market risk (systematic risk) as unsystematic or idiosyncratic risk can be eliminated through diversification. If the bank portfolio is well-diversified then the rating should reflect the market risk.

- Under the IRB system, the risk weight on an exposure does not depend on the bank portfolio in which the exposure is held. That is, while capital charged on a given loan reflects its own risk characteristics, such as the credit rating of the obligor and the strength of the collateral, it is not permitted to depend on the characteristics of the rest of the bank's portfolio. To get this property of portfolio-independence, we must calibrate risk weights under the assumption of infinite granularity. Without this assumption, the appropriate capital charge for a facility would depend partly on its contribution to the aggregate idiosyncratic risk in the
portfolio, and therefore would depend on what else was in the portfolio. With the assumption of infinite granularity, idiosyncratic risk can be ignored, so the appropriate capital charge for a facility depends only on the systematic component of its credit risk.

- A very similar intuition underpins the well-known CAPM model for equity returns. The idea in the CAPM is that returns on individual stocks are correlated with the market as a whole but also have their own idiosyncratic movements. Investors can diversify away the idiosyncratic movements by holding a broad basket of stocks, so need to be compensated with a "risk-premium" only for correlation with the market. Banks also may work on similar principle while assessing the credit risk of a proposal.