Annex – II
(Cf. para 7 of the Circular)

An illustrative outline of the ICAAP Document

1. What is an ICAAP document?

The ICAAP Document would be a comprehensive Paper furnishing detailed information on the ongoing assessment of the bank's entire spectrum of risks, how the bank intends to mitigate those risks and how much current and future capital is necessary for the bank, reckoning other mitigating factors. The purpose of the ICAAP document is to apprise the Board of the bank on these aspects as also to explain to the RBI the bank's internal capital adequacy assessment process and the banks' approach to capital management. The ICAAP could also be based on the existing internal documentation of the bank.

The ICAAP document submitted to the RBI should be formally approved by the bank's Board. It is expected that the document would be prepared in a format that would be easily understood at the senior levels of management and would contain all the relevant information necessary for the bank and the RBI to make an informed judgment as to the appropriate capital level of the bank and its risk management approach. Where appropriate, technical information on risk measurement methodologies, capital models, if any, used and all other work carried out to validate the approach (e.g. board papers and minutes, internal or external reviews) could be furnished to the RBI as appendices to the ICAAP Document.

2. Contents

The ICAAP Document should contain the following sections:

I. Executive Summary

II. Background

III. Summary of current and projected financial and capital positions

IV. Capital Adequacy

V. Key sensitivities and future scenarios

VI. Aggregation and diversification

VII. Testing and adoption of the ICAAP

VIII. Use of the ICAAP within the bank

I. Executive Summary

The purpose of the Executive Summary is to present an overview of the ICAAP methodology and results. This overview would typically include:

a) the purpose of the report and the regulated entities within a banking group that are covered by the ICAAP;

b) the main findings of the ICAAP analysis:

  i. how much and what composition of internal capital the bank considers it should hold as compared with the minimum CRAR requirement (CRAR) under 'Pillar 1' calculation, and

  ii. the adequacy of the bank's risk management processes;

c) a summary of the financial position of the bank, including the strategic position of the bank, its balance sheet strength, and future profitability;

d) brief descriptions of the capital raising and dividend plan including how the bank intends to manage its capital in the days ahead and for what purposes;

e) commentary on the most material risks to which the bank is exposed, why the level of risk is considered acceptable or, if it is not, what mitigating actions are planned;

f) commentary on major issues where further analysis and decisions are required; and

g) who has carried out the assessment, how it has been challenged / validated / stress tested, and who has approved it.

II. Background

This section would cover the relevant organisational and historical financial data for the bank. e.g., group structure (legal and operational), operating profit, profit before tax, profit after tax, dividends, shareholders funds, capital funds held vis-à-vis the regulatory requirements, customer deposits, deposits by banks, total assets, and any conclusions that can be drawn from trends in the data which may have implications for the bank's future.

III. Summary of current and projected financial and capital positions

This section would explain the present financial position of the bank and expected changes to the current business profile, the environment in which it expects to operate, its projected business plans (by appropriate lines of business), projected financial position, and future planned sources of capital.

The starting balance sheet used as reference and date as of which the assessment is carried out should be indicated.

The projected financial position could reckon both the projected capital available and projected capital requirements based on envisaged business plans. These might then provide a basis against which adverse scenarios might be compared.

IV. Capital adequacy

This section might start with a description of the bank's risk appetite, in quantitative terms, as approved by the bank's Board and used in the ICAAP. It would be necessary to clearly spell out in the document whether what is being presented represents the bank's view of the amount of capital required to meet minimum **regulatory needs or** whether represents the amount of capital that a bank believes it would need **to meet its business plans**. For instance, it should be clearly brought out whether the capital required is based on a particular credit rating desired by the bank or includes buffers for strategic purposes or seeks to minimise the chance of breaching regulatory requirements. Where economic capital models are used for internal capital assessment, the confidence level, time horizon, and description of the event to which the confidence level relates, should also be enumerated. Where scenario analyses or other means are used for capital assessment, then the basis / rationale for selecting the chosen severity of scenarios used, should also be included.

The section would then include a detailed review of the capital adequacy of the bank.

The information provided would include the following elements:

Timing

- the effective date of the ICAAP calculations together with details of any events between this date and the date of submission to the Board / RBI which would materially impact the ICAAP calculations together with their effects; and

- details of, and rationale for, the time period selected for which capital requirement has been assessed.

Risks analysed

- an identification of the major risks faced by the bank in each of the following categories:

    a) credit risk
    b) market risk
    c) operational risk
    d) liquidity risk
    e) concentration risk
    f) interest rate risk in the banking book
    g) residual risk of securitisation
    h) strategic risk
    i) business risk
    j) reputation risk
    k) pension obligation risk
    l) other residual risk; and
    m) any other risks that might have been identified

- for each of these risks, an explanation of how the risk has been assessed and o the extent possible, the **quantitative results** of that assessment;

- where some of these risks have been highlighted in the report of the RBI's on-site inspection of the bank, an explanation of how the bank has mitigated these;

- where relevant, a comparison of the RBI-assessed CRAR during on-site inspection with the results of the CRAR calculations of the bank under the ICAAP;

- a clear articulation of the bank's risk appetite, in quantitative terms, by risk category and the extent of its consistency (its 'fit') with the overall assessment of bank's various risks; and

- where relevant, an explanation of any other methods, apart from capital, used by the bank to mitigate the risks.

Methodology and assumptions

A description of how assessments for each of the major risks have been approached and the main assumptions made.

For instance, banks may choose to base their ICAAP on the results of the CRAR calculation with the capital for additional risks (e.g. concentration risk, interest rate risk in the banking book, etc.) assessed separately and added to the Pillar 1 computations. Alternatively, banks could choose to base their ICAAP on internal models for all risks, including those covered under the CRAR (i.e. Credit, Market and Operational Risks).

The description here would make clear which risks are covered by which modelling or calculation approach. This would include details of the methodology and process used to calculate risks in each of the categories identified and reason for choosing the method used in each case.

Where the bank uses an internal model for the quantification of its risks, this section should explain for each of those models:

- the key assumptions and parameters within the capital modelling work and background information on the derivation of any key assumptions;
- how parameters have been chosen, including the historical period used and the calibration process;
- the limitations of the model;
- the sensitivity of the model to changes in those key assumptions or parameters chosen; and
- the validation work undertaken to ensure the continuing adequacy of the model.

Where stress tests or scenario analyses have been used to validate, supplement, or probe the results of other modelling approaches, then this section should provide:

- details of simulations to capture risks not well estimated by the bank's internal capital model (e.g. non-linear products, concentrations, illiquidity and shifts in correlations in a crisis period);
- details of the quantitative results of stress tests and scenario analyses the bank carried out and the confidence levels and key assumptions behind those analyses, including, the distribution of outcomes obtained for the main individual risk factors;
- details of the range of combined adverse scenarios which have been applied, how these were derived and the resulting capital requirements; and
- where applicable, details of any additional business-unit-specific or business-plan-specific stress tests selected.

Capital transferability

In case of banks with conglomerate structure, details of any restrictions on the management's ability to transfer capital into or out of the banking business(es) arising from, for example, by contractual, commercial, regulatory or statutory constraints that apply, should be furnished. Any restrictions applicable and flexibilities available for distribution of dividend by the entities in the Group could also be enumerated. In case of overseas banking subsidiaries of the banks, the regulatory restrictions would include the minimum regulatory capital level acceptable to the host-country regulator of the subsidiary, after declaration of dividend.

V. Key sensitivities and future scenarios

This section would explain how a bank would be affected by an economic recession or downswings in the business cycle or markets relevant to its activities. The RBI would like to be apprised as to how a bank would manage its business and capital so as to survive a recession while meeting the minimum regulatory standards. The analysis would include future financial projections for, say, three to five years based on business plans and solvency calculations.

For the purpose of this analysis, the severity of the recession reckoned should typically be one that occurs only once in a 25 year period. The time horizon would be from the day of the ICAAP calculation to at least the deepest part of the recession envisaged.

Typical scenarios would include:

- how an economic downturn would affect:
    - the bank's capital funds and future earnings; and
    - the bank's CRAR taking into account future changes in its projected balance sheet.
- In both cases, it would be helpful if these projections show separately the effects of management actions to change the bank's business strategy and the implementation of contingency plans.
- projections of the future CRAR would include the effect of changes in the credit quality of the bank's credit risk counterparties (including migration in their ratings during a recession) and the bank's capital and its credit risk capital requirement;
- an assessment by the bank of any other capital planning actions to enable it to continue to meet its regulatory capital requirements throughout a recession such as new capital injections from related companies or new share issues;
- This section would also explain which key macroeconomic factors are being stressed, and how those have been identified as drivers of the bank's earnings. The bank would also explain how the macroeconomic factors affect the key parameters of the internal model by demonstrating, for instance, how the relationship between the two has been established.

Management Actions

This section would elaborate on the management actions assumed in deriving the ICAAP, in particular:

- the quantitative impact of management actions – sensitivity testing of key management actions and revised ICAAP figures with management actions excluded.
- evidence of management actions implemented in the past during similar periods of economic stress.

VI. <u>Aggregation and diversification</u>

This section would describe how the results of the various separate risk assessments are brought together and an overall view taken on capital adequacy. At a technical level, this would, therefore, require some method to be used to combine the various risks using some appropriate quantitative techniques. At the broader level, the overall reasonableness of the detailed quantification approaches might be compared with the results of an analysis of capital planning and a view taken by senior management as to the overall level of capital that is considered appropriate.

- In enumerating the process of technical aggregation, the following aspects could be covered:

  i) any allowance made for diversification, including any assumed correlations within risks and between risks and how such correlations have been assessed, including in stressed conditions;

  ii) the justification for any credit taken for diversification benefits between legal entities, and the justification for the free movement of capital, if any assumed, between them in times of financial stress;

  iii) the impact of diversification benefits with management actions excluded. It might be helpful to work out revised ICAAP figures with all correlations set to '1' i.e., no diversification; and similar figures with all correlations set to '0' i.e. assuming all risks are independent i.e., full diversification.

- As regards the overall assessment, this should describe how the bank has arrived at its overall assessment of the capital it needs taking into account such matters as:

  i) the inherent uncertainty in any modelling approach;

  ii) weaknesses in the bank's risk management procedures, systems or controls;

  iii) the differences between regulatory capital and internal capital; and

  iv) the differing purposes that capital serves: shareholder returns, rating objectives for the bank as a whole or for certain debt instruments the bank has issued, avoidance of regulatory intervention, protection against uncertain events, depositor protection, working capital, capital held for strategic acquisitions, etc.

VII. Testing and adoption of the ICAAP

This section would describe the extent of challenging and testing that the ICAAP has been subjected to. It would thus include the testing and control processes applied to the ICAAP models and calculations. It should also describe the process of review of the test results by the senior management or the Board and the approval of the results by them. A copy of any relevant report placed before the senior management or the Board of the bank in this regard, along with their response, could be attached to the ICAAP Document sent to the RBI.

Details of the reliance placed on any external service providers or consultants in the testing process, for instance, for generating economic scenarios, could also be detailed here.

In addition, a copy of any report obtained from an external reviewer or internal audit should also be sent to the RBI.

VIII. Use of the ICAAP within the bank

This section would contain information to demonstrate the extent to which the concept of capital management is embedded within the bank, including the extent and use of capital modelling or scenario analyses and stress testing within the bank's capital management policy. For instance, use of ICAAP in setting pricing and charges and the level and nature of future business, could be an indicator in this regard.

This section could also include a statement of the bank's actual operating philosophy on capital management and how this fits in to the ICAAP Document submitted. For instance, differences in risk appetite used in preparing the ICAAP Document vis-a-vis that used for business decisions might be discussed.
Lastly, the banks may also furnish the details of any anticipated future refinements envisaged in the ICAAP (highlighting those aspects which are work-in-progress) apart from any other information that the bank believes would be helpful to the RBI in reviewing the ICAAP Document.