# Guidelines on Internal Capital Adequacy Assessment Process

State Bank of Pakistan

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## 1. Introduction

1.1 New capital regime, Basel II has departed from the conservative prescriptive approach to well deliberated forward-looking approach, and has emphasized upon adoption of risk management methodologies to assess the capital requirements for an individual financial institution. Now banks / DFIs[1] can measure capital requirements according to their own overall risk exposures, risk management framework, internal systems and controls, and strategic plans.

1.2 Besides the major risks covered in Pillar-1, banks are required to determine their capital adequacy in relation to all material inherent business risks and other risks related to external economic environment. Thus, banks are faced with the challenge of developing internal procedures and systems in order to ensure that they possess adequate capital resources in commensuration with all material risks posed to it by its operating activities. These procedures are referred as Internal Capital Adequacy Assessment Process (ICAAP) under Supervisory Review Process – Pillar-2 of Basel II. A well thought out execution of ICAAP can generate tangible competitive advantage to the concerned financial institution.

1.3 Assessment of the banks' capital adequacy is not only the regulatory demand but it also creates business value for the bank itself. All business decisions are based on the trade-off relationship of risk and return and banks are no exception. Financial industry has entered into an innovative phase resultantly a variety of complex products and services are developed and offered to customers belonging to various categories and industries. The increasing complexity of the banking business and the multi dimensional risks to which banks are exposed to necessitates the functions which ascertain, measure, and control the bank's risk situation. The profitable and continued existence of a bank is in the best interest of all stakeholders; it therefore, becomes important to detect developments which may endanger the bank as early as possible enabling it to take suitable countermeasures. Internal capital adequacy process serves the purpose and estimates the cushion (in the form of capital) in relation to the risks, which a bank should have to protect the interest of all internal and external stakeholders. The adequacy of capital may take into consideration other factors such as external ratings, market reputation, strategic goals, and regulatory scope etc.

1.4 Keeping in view the importance of the ICAAP, all banks/DFIs have already been advised vide BSD Circular No. 8 of 2006 to develop such process. In order to facilitate the banks and supplement the already issued instructions, following paragraphs briefly explain the basic principles of the ICAAP and the regulatory requirements.

## 2. Internal Capital Adequacy Assessment Process (ICAAP)

2.1 ICAAP is a set of policies, methodologies, techniques, and procedures to assess the capital adequacy requirements in relation to the bank's risk profile and effectiveness of its risk management, control

[1] The term 'bank', wherever used throughout the document, unless otherwise specified, means all banks and DFIs regulated by State Bank of Pakistan under the provisions of BCO 1962.

environment and strategic planning. This includes basic requirements to have robust governance arrangements, efficient process of managing all material risks and an effective regime for assessing and maintaining adequate capital.

2.2 Establishment of ICAAP is the responsibility of an individual bank. Board of Directors and senior management shall ensure that sufficient resources are allocated for development of a comprehensive ICAAP.

2.3 Banks are free to develop a process according to their size, complexity and scale of their operational and business activities. Smaller banks with limited operations and less complex transactions might design their ICAAP using simple methodologies. The banks dealing in complex transactions and business activities would require more advanced techniques and methods to develop a comprehensive ICAAP.

2.4 ICAAP should be all encompassing process taking into account all those risk areas which are not reasonably addressed under Pillar 1 of Basel II, while evaluating credit, market, and operational risks; and all those risks factors which are not covered under Pillar-1 process. ICAAP should also capture the impact of external business and economic environment.

2.5 The process of ICAAP involves identification and assessment of all the risks faced by a bank and necessary steps to calculate the actual capital (risk taking capacity). In order to compile this overall measure, the bank has to define which components of its balance sheet and/or Profit & Loss can be included into calculation (i.e. which balance sheet and/or P&L components genuinely represent loss absorption capacity of the bank). Therefore the bank has to define a clear process for assessment of its risks and the capital.

2.6 It is emphasized that the enhanced capital level is neither an answer for addressing risks confronting the bank nor a substitute for inadequate internal controls or weak risk management system. Other measures such as improving the control environment, consolidating risk management, enhancing the level of provisions and reserves, and strengthening of corporate governance should also be considered.

2.7 The banks are recommended to take benefit from SBP Guidelines (*List of guidelines related to risk management, internal control, etc is given an addendum to this document*) which may give direction to develop institution specific processes and procedures.

## 3. Elements of ICAAP

A sound risk management framework, which includes Board oversight, risk assessment, monitoring and reporting processes, and regular independent review of all activities carried out by the risk function, is the major building block of an ICAAP. ICAAP is a challenging exercise for banks; therefore, they will have to adopt a well organized structure to accomplish the task. Five major elements of ICAAP are as follow:

1) Board and senior management oversight
2) Sound capital assessment
3) Comprehensive assessment of risks
4) Monitoring and reporting
5) Internal control review

## 3.1 Board and Senior Management Oversight

3.1.1 The Board of Directors (Board) is responsible for setting the risk appetite of the bank, and ensuring that the bank's business remains within the desired limits. Management should understand the nature and level of various risks that the bank is confronting in the course of different business activities and how this risk relates to capital levels. Accordingly, a sound risk management framework should be established specifying control measures to tackle each risk factor.

3.1.2 Board and management shall jointly ensure that formality and sophistication of the risk management processes are appropriate in light of the bank's risk profile and business plan. They should put in place credible and consistent policies and procedures to identify, measure, and report all material risks that the bank faces. Board should ensure that the Policy Framework[2] is comprehensive for key business and support functions, and establish a method for monitoring compliance of the same.

3.1.3 Board is primarily responsible for ensuring the current and future capital needs of their bank in relations to strategic objectives. The strategic plan of the bank should clearly outline the bank's capital needs, anticipated capital expenditures, desirable capital level, and external capital sources and must be in line with the bank's desired strategic objectives. Capital plan should also take into account dividend policy and planned growth while determining the adequate capital level.

3.1.4 Board should ensure that the ICAAP does not become mere compliance activity which senior management delegates to a lower level and it is carried out once or twice a year. Board and senior management must be clearly involved in the issue and push forward the process development and integrate it into the ongoing operations and planning.

## 3.2 Sound Capital Assessment

3.2.1 The fundamental elements of any sound capital assessment consist of:

a) Policies and procedures designed to ensure that the bank identifies, measures, and reports all material risks;
b) A process that relates capital to the level of risk;
c) A process that states capital adequacy goals with respect to risk, taking account of the bank's strategic focus and business plan; and

2 State Bank of Pakistan has already recommended to establish a Policy Framework covering areas like Risk Management; Credit; Treasury & Investment; Internal Control System and Audit; IT Security; Human Resources; Expenditure; Accounting & Disclosure, and Business Continuity Plan vide BSD Circular No. 03 dated April 04, 2007

d) A process of internal controls, reviews, and audit to ensure the integrity of the overall management process.

3.2.2 SBP understands that there is no single benchmark process; therefore banks are free to design their ICAAP in different ways depending upon their size, nature and complexity of operations, and level of sophistication of their risk management practices. Banks may select to use formal economic capital models considering their own capacity to manage such models. Economic capital model may be based on the bank's own business lines / segments or as defined in the Basel II document.

3.2.3 Banks may choose to adopt a building block approach, using different techniques and models to measure each risk type covered under Pillar-1 and 2 and then calculating a sum of the resulting capital needs. Alternatively they might start with its actual capital and break it down to all its material risks. The choice of methodology should clearly be commensurate with the banks' ability to collect the necessary information and to calculate the necessary inputs in a reliable manner. The actual calculation and allocation of internal capital always needs to be supplemented by sufficiently robust qualitative procedures, measures and provisions to identify, manage, control, and monitor all material risks.

3.2.4 At an initial level, the banks may estimate their capital requirements based on the Pillar-1 requirements and calculate the additional capital required to take into account of all those risks which are not reasonably addressed or not covered under Pillar-1. However, these calculations may be insufficient and the banks must ensure that Pillar-1 requirements fully capture the corresponding risks. The banks should clearly establish quantitative and/or qualitative measures for every risk category and / or the combination of both may be adopted for estimation of a particular risk.

3.2.5 Those risks i.e. reputational, strategic, etc which cannot be easily quantified; banks may constitute committees / expert groups to estimate the risk levels and to allocate capital to each such risk type based on their judgment. Banks must develop procedures and processes to address these risks and document the same in their approved risk policy.

3.2.6 The banks with more complex and riskier structure should adopt advanced and structured methodologies for estimation of their capital requirements. 'Sophisticated methods' for capital calculation / allocation use internal risk assessment models which are transaction-based and take into account the correlation, netting, and granularity effects among risks. These models demand sophisticated data handling techniques for consistency, reliability and quality of its results. Banks should take concerted measures to improve internal capacity and resources i.e. human, systems, etc. to adopt such models.

3.2.7 The bank's internal capital assessment must demonstrate that it has enough capital not only to meet the minimum regulatory capital requirements but also to withstand a range of severe but plausible shocks. In particular, the larger banks must factor in, where appropriate, illiquidity / gapping of prices, concentration positions in relation to market turnover, and other probable events such as recovery rate uncertainty, shifts in correlation, etc. The banks may benefit from SBP guidelines on 'Stress Testing' to implement the concept.

## 3.3 Comprehensive Assessment of Risks[3]

3.3.a Banks are required to identify and estimate all material risks faced by them in internal capital assessment process. Although it is difficult and may not be cost effective to capture complete risk universe yet a risk assessment system should be established to deal with all significant risks related to the bank. While Board and management formulate / approve policies, processes, and procedures of every risk area; the business managers should be made accountable to identify the severity and impact of the risks involved in their operational activities.

3.3.b The most critical element of a sound risk management system is that management disseminates policies and procedures approved by the Board and ensures their implementation and compliance in true spirit.

3.3.c Bank should ensure continuous internal and external review of quantitative and qualitative risk measures to verify the relevance of risk management system to its business activities. Management should emphasize the significance and effectiveness of risk management practices to all internal stakeholders and it should be embedded in the culture of the institution.

3.3.d Banks should also assess the risks emanating from the intra-group exposures; these may include fund / non-fund based facilities and potential obligations to help sister concerns in financial crisis. Banks should take into consideration possible adverse impacts of these relationships on the banks' financial stability and adopt remedial measures to contain contagion risk.

### 3.3.1 Pillar 1 Risks[4]

Credit, Market, and Operational risks are thoroughly discussed in the Guidelines on Risk Management and BSD Circular 8 of 2006 which suggests different methodologies and techniques to identify, measure, and monitor these risks. The banks are recommended to review their risk profiles in light of issued instructions and internationally acclaimed practices.

**i) Credit Risk**

Credit risk is the most significant risk confronted by the lending institutions thus the banks should meticulously manage it. They are expected to use various methodologies for assessing the credit risk involved in exposures to individual borrowers or counterparties as well as at the portfolio level. The credit review assessment of capital adequacy should at least cover risk rating systems[5], portfolio

[3] SBP Guidelines on Risk Management issued through BSD Circular No. 07 dated August 15, 2003 discuss Credit, Market, Liquidity, and Operational risks at length. Islamic banks must refer to "Risk Management Guidelines for IBIs" issued through IBD Circular No.1 dated January 03, 2008.

[4] Credit, Market, and Operational risks are covered under Pillar 1; however, certain risks involving these categories may not be adequately captured to assess the capital adequacy. Banks / DFIs are encouraged to identify and pay attention to these risks factors as well.

[5] Guidelines on Internal Credit Risk Rating Systems issued through BSD Circular No. 08 dated October 29, 2007, suggest certain ways to attend to this area.

analysis and aggregation, large exposures, and risk concentrations. Banks should regularly review, at least on quarterly basis, the performance of its corporate credit portfolio borrower-wise by size, sector, and collateral category including analysis of major limits and lines granted, deviations from the bank's loan strategy, scale and development of new business.

**ii) Market Risk**

Banks should use appropriate methodology to monitor aggregate market risk exposures and provide a common metric for comparing the risks being run by different desks and business lines, and institution-wide level. Techniques or methods adopted should be adequate and suitable for a bank to identify and measure risks arising from all its trading activities and should be integrated into the bank's overall internal capital assessment as well as subject to rigorous on-going validation.

Appropriate stress testing can be carried out for assessment of concentration risk and illiquidity under stressful market scenarios. Banks must supplement their market risk model with stress tests (factor shocks or integrated scenarios whether historic or hypothetical) and other appropriate risk management techniques.

**iii) Operational Risk**

The management of operational risk is significant to avoid misstatement of an institution's risk-return profile and this can expose a bank to significant losses. A framework for managing operational risk should be created to evaluate capital adequacy. The framework should cover the bank's tolerance for operational risk as specified through the policies for managing operational risk including the extent and manner in which operational risk is transferred outside the bank. Material operational risks should be identified and assessed at least once a year. Major losses must be analyzed immediately with regard to their causes. A report on major losses and material operational risks must be provided to the management at least once a year. This report has to include the type of loss or risk, the causes, the scope of the loss or risk and where appropriate countermeasures (e.g. insurance protection, change in procedures, reorientation of business activities, etc) which have been taken to mitigate the risks involved.

## 3.3.2 Pillar 2 Risks

**i. Liquidity Risk**

Liquidity risk emerges from the needs of funding the assets, withdrawal/call of deposits, and/or market liquidity positions. Banks' capital positions can have an effect on their ability to obtain liquidity especially in a crisis. Each bank must have adequate systems for measuring, monitoring and controlling liquidity risk. Bank should evaluate the adequacy of capital given its own liquidity profile and the liquidity of the market. In this respect, bank must prepare its liquidity outlook covering an appropriate period of time, which has to compare its expected cash inflows with expected outflows of funds specifying the underlying assumptions. Appropriate scenario assessments have to be performed on a regular basis while preparing the liquidity outlook. Possible scenarios may include; the default of key borrowers/lenders, a full or partial withdrawal of interbank deposits, a slump in secondary market prices for securities in the liquidity reserve, deterioration in the rating of the bank, the cancellation of key credit lines granted to the bank. The bank must document the measures to be taken in the event of liquidity squeeze.

**ii. Interest Rate Risk in the Banking Book**

Banks have to focus on gathering of internal data for interest rate positions, relevant pricing / re-pricing, and maturities. Simultaneously, they should develop their own assumptions and techniques to tackle interest rate risk in their banking books in relation to changing market scenarios. The quality and robustness of data collection process shall ensure reliability of measurement system.

**iii. Credit Concentration Risk**

Credit concentration risk may arise from exposure to a single entity / group and/or exposures in the same economic or geographic sector and/or credit concentration in dependent industries. Downturn in concentrated activities and/or areas may cause huge losses to a bank relative to its capital and can threaten the bank's health or ability to maintain its core operations.

Banks are required to introduce effective internal policies, systems and controls to identify, measure, monitor, and control their credit risk concentrations emerging from exposures to a single entity / group and/or exposures in the same economic or geographic sector and/or credit concentration in dependent industries. Banks should clearly document the processes and procedures for addressing credit risk concentrations. A periodic review should be conducted in line with the changes in market conditions that could adversely impact the bank's performance. Banks should explicitly take into account their significant credit risk concentrations in their assessment of capital adequacy.

**iv. Residual Risk**

Banks can offset their credit risk using different credit risk mitigation techniques which may give rise to other risks i.e. legal, reputation, and strategic etc. Banks shall ensure that adequate measures are taken to provide capital cushion for these risks. The management should formulate policies, processes and systems to address these risks considering their impact and interrelationship. An effective model can be developed by giving due attention to underlying assumptions, market uncertainties, and operational issues. A regular review must be conducted to ensure the reliability, accuracy, authenticity of data, and check effectiveness and integrity of the model.

**v. External Risk Factors**

Banks are also exposed to the risks which may arise from the external environment, viz. regulatory, economic or business environment, which are not included in any other risk category. Banks are also required to take into account these risks while preparing their capital plan.

### 3.3.3 Risk Aggregation

Once all material risks are identified and properly measured, they should be reported to the Board and senior management in a consolidated manner. The banks may use risk matrices, simplest and common way, to present graphically the bank's risk profile. Banks may also choose other reasonable means to demonstrate the relationship between its risk measures and the level of capital. Aggregated position helps the management in the decision making process of maintaining adequate capital level as now it knows the risks that the bank faces. Secondly, the banks can decide based on the existing risk profile, the future risks they can take. This also helps to plan and allocate appropriate capital to its business lines accordingly. Such allocation of capital to a business line is essential as this could form a basis for decisions on the magnitude of risk to be assumed and the type of products, loans and treasury positions, to be offered in each business line.

## 3.4 Monitoring and Reporting

Board and management should regularly monitor the risk exposures in each business line. Variations in the risk profile shall result in different capital requirement. A robust Management Information System is basic requirement which enables the generation of relevant reports for providing information on the risk exposures and assessing capital needs. These reports should help Board / management to:

a) Evaluate the level and trend of material risks and their effect on capital levels;
b) Evaluate the sensitivity and reasonableness of key assumptions used in the capital assessment measurement system;
c) Determine that the bank holds sufficient capital against the various risks and is in compliance with established capital adequacy goals; and
d) Assess its future capital requirements based on the bank's reported risk profile and make necessary adjustments to the bank's strategic plan accordingly.

Banks should ensure that reports on material risks are frequently submitted to Board and senior management. The periodicity of risk reporting may vary according to the severity and type of risks. However, banks should generate such reports at least on quarterly basis for all material risks for review of the senior management.

## 3.5 Internal Control Review[6]

Internal Control Review system is the cornerstone to safeguard the integrity of Internal Capital Adequacy Assessment Process. An efficient control system comprises internal control function, compliance function including Shariah compliance for Islamic Banking Institutions, internal and external audit. Internal control policies, procedures, and processes shall be formulated by the Board with the help of senior management. Board shall establish a compliance mechanism to check the implementation of internal policies. Periodic reviews of overall risk management processes shall enable the Board and senior management to plug the gaps and confront potential loopholes. Independent reviews should also be conducted to evaluate system with respect to industry practices. Reassessment process should validate authenticity and suitability of risk identification and measurement processes, correctness and reliability of data (collection methods, data warehousing

[6] SBP Guidelines on Internal Controls issued vide BSD Circular No .07 dated May 27, 2004 and amended through BSD Circular No. 01 dated January 14, 2006 shall assist banks/ DFIs to establish an effective Internal Control System.

etc), and validity of various assumptions adopted in different assessment methodologies i.e. scenario analyses, stress testing etc.

## 4 ICAAP Essentials

4.1 The bank should have an explicit approved capital plan which states the bank's objectives and the time horizon for achieving those objectives, and in broad terms the capital planning process and the responsibilities for that process. The plan should also explain; how the bank will comply with capital requirements in the future and a general contingency plan for dealing with divergences and unexpected events. The bank should have a mechanism to ensure that the results and findings of the ICAAP are incorporated into its strategy and risk appetite and should influence management of its risk profile.

4.2 The bank shall keep record of the assessment process of each risk category giving detail of underlying assumptions and quantitative results. An overall risk position shall be calculated by means of aggregation of major risks (credit, market, and operational) and capital allocation there against and capital cushion for other risks. The bank shall prudently take into account interdependencies or correlations among various risk categories while aggregating the risk position. However, it is important to allocate adequate capital for each risk type.

4.2.1 The ICAAP should be integrated into the strategic management process as the strategic decisions involve risks which have to be offset with risk coverage capital.

4.2.2 Bank shall adopt a consistent approach for proactive capital planning and maintenance of capital adequacy relative to its risk profile.

4.2.3 ICAAP shall be made an integral part of management processes and decision making culture.

4.2.4 ICAAP should be forward-looking in line with bank's strategic plan and foreseeable external business and economic environment.

4.2.5 ICAAP shall be comprehensively documented to facilitate internal or external reviews. ICAAP document shall cover current financial and capital position of the bank and explain projected capital requirements based on expected business plans.

4.2.6 Bank shall determine its capital adequacy on the basis of all material risks including:

a) Credit risk
b) Market risk
c) Operational risk
d) Liquidity risk
e) Country risk
f) Strategic risk
g) Legal risk
h) Reputational risk, and

i) Any other risk(s) associated with the business activities of the bank e.g. Islamic banks should take into account equity investment risk and rate of return risk as well.

4.2.7 ICAAP should be regularly reviewed by the bank at least on annual basis, or more frequently as deemed necessary to ensure that the process takes into account all material risks and the results reflect actual risk profile of the bank.

4.2.8 Besides strategies and processes in place for continuously assessing and maintaining the adequacy of their internal capital, banks are also required to carry out regular internal reviews of these strategies and processes to ensure the adequacy and completeness of the ICAAP on ongoing basis. It is emphasized that final outcome must include the following minimum components.

i. Synopsis covering purpose / objective of ICAAP, salient features of ICAAP exercise, summary of strategic plan of the bank, projected financial and operational results for the medium term (five years).
ii. A well documented and approved Risk Policy indicating structure and functional responsibilities of Risk Management, Compliance, and Internal Audit, and also the use of external resources.
iii. Comprehensive description of assessment of all material risks (mentioned at 4.2.6 above) giving detail of measurement techniques i.e. scenario analyses, stress testing, and statistical models like VaR etc, with underlying assumptions; weaknesses of the relevant technique and procedures implemented to take care of these limitations.
iv. Consolidation and aggregation of various individual risk assessments highlighting approaches adopted and evaluation of these methodologies.
v. Evaluation of existing and future capital resources showing projected growth in each business line / area, expected earnings and dividend payouts, and contingency capital plan facing major external business and economic downturns.

4.2.9 Banks are required to publish summary of their approach for assessing the adequacy of the capital to support current and future operations and the regulatory requirements as required under Forms of Annual Financial Statements for Banks / DFIs. Moreover, the banks shall submit the results of their ICAAP to Banking Surveillance Department as per format attached at **Annexure-A**.

## Annexure-A – Format for submission of ICAAP Findings

1. **Overview:** The bank shall discuss its nature of business, risk appetite and philosophy to deal with major risks involved in its operations.

2. **Summary of current and projected financial position:** The bank shall provide the current financial results indicating contribution of each business line and the projections of financial position for the next five years. Main assumptions with appropriate explanation should also be given to support the growth prospects.

3. **Summary of current and projected capital resources:** The availability of capital resources (indicating the contribution of each component of Tier 1, Tier 2, and Tier 3) for the current operations and future needs should be spelt out. Capital contingency plan highlighting the sources of capital and / or alternative arrangements in the wake of sudden internal business shocks and/or external economic downturn, major investments, merger, acquisitions, sources to fund new ventures, etc.

4. **Risk Assessment and Capital Adequacy:** Discussion on the analysis of following risks and capital allocation against each category.

    a) Credit risk
    b) Market risk
    c) Operational risk
    d) Liquidity risk
    e) Country risk
    f) Strategic risk
    g) Legal risk
    h) Reputational risk, and
    i) Any other risk(s) associated with the business activities of the bank e.g. Islamic banks should take into account equity investment risk and rate of return risk as well.

    The bank should discuss the other risks i.e. interest rate in the banking book, concentration risk etc. being faced by the bank.

    Bank should describe the assessment procedures for assessment of these risks and rationale for selecting any particular method. The bank should discuss the assessment techniques used (model based, scenario analyses, and stress testing) and quantitative results of each risk. Qualitative measures, if any, should also be explained in the relevant risk class.

    The bank using internal model, whether proprietary or vendor, for calculation of its risks should explain key assumptions and parameters with their suitable justification.

    **Outlook:** The bank should explain present challenges faced by it to improve the risk management framework. The bank may develop action plans with suitable timeline to adopt/develop the sophisticated advanced techniques for assessment and measurement of all material risks.

## Addendum

## List of Guidelines and relevant instructions issued by State Bank of Pakistan

**1. Basel II**

i. Minimum Capital Requirements (explanatory references and reporting formats) – Implementation of Basel II - BSD Circular No. 02 of 2007 dated March 26, 2007
ii. Revised Minimum Capital Requirements – Implementation of Basel II - BSD Circular No. 08 of 2006 dated June 27, 2006
iii. Roadmap for the Implementation of Basel II in Pakistan - BSD Circular No. 03 dated March 31, 2005

**2. Minimum Capital Requirement**

i. Minimum Capital Requirements for Banks/DFIs - BSD Circular Letter No. 02 dated February 07, 2007
ii. Minimum Capital Requirements for Banks/DFIs [Institutional Risk Assessment Framework (IRAF) and Capital Adequacy Ratio (CAR) ] - BSD Circular No. 06 dated October 28, 2005
iii. Minimum Capital Requirements for Banks / DFIS - BSD Circular No. 12 dated August 25, 2004

**3. Risk Management**

i. Risk Management Guidelines for Islamic Banking Institutions (IBIs) – IBD Circular No. 1 dated January 02, 2008.
ii. Guidelines on Internal Credit Risk Rating Systems – BSD Circular No. 08 dated October 29, 2007
iii. Guidelines on Risk Management (detailed guidelines) - BSD Circular No. 07 dated August 15, 2003

**4. Stress Testing**

i. Guidelines on Stress Testing - BSD Circular No. 5 dated October 27, 2005

**5. Internal Controls**

i. Guidelines on Internal Controls (amendments) - BSD Circular No. 01 dated January 14, 2006
ii. Guidelines on Internal Controls (detailed guidelines) - BSD Circular No .07 dated May 27, 2004

**6. Financial Disclosure**

i. Disclosure in Annual Accounts - BSD Circular Letter No.02 dated January 07, 2005
ii. Financial Disclosure – Frequency & Timelines - BSD Circular No. 01 dated January 07, 2004

## 7. Policy Framework

i. Policy Framework - BSD Circular No. 03 dated April 04, 2007
   a) Risk Management Policy (market risk, liquidity risk, operational risk, country risk)
   b) Credit Policy
   c) Treasury & Investment Policy (scope & objectives, role of treasury function, investment policy framework, funds transfer pricing, liquidity management, ALCO)
   d) Internal Control System and Audit Policy (internal audit policy, compliance policy, KYC/AML policy)
   e) IT Security Policy
   f) Human Resource Policy
   g) Expenditure Policy
   h) Accounting & Disclosure Policy

ii. Business Continuity Plan

## 8. Others

i. Financial Derivatives Business Regulations; Foreign Currency Options; Forward Rate Agreement; and Interest Rate Swaps – BSD Circular No. 17 dated November 26, 2004

ii. Policies for Promotion of Islamic Banking (as subsequently amended by Islamic Banking Department) – BPD Circular No.1 dated January 01, 2003.

iii. Prudential Regulations for Corporate/Commercial, SME, Consumer, and Agriculture Financing (available at http://www.sbp.org.pk/publications/prudential/index.htm )

iv. Any other instructions issued from time to time.