BANK OF BOTSWANA

GUIDELINES ON THE REVISED INTERNATIONAL CONVERGENCE OF CAPITAL MEASUREMENT AND CAPITAL STANDARDS FOR BOTSWANA (BASEL II)

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ACRONYMS AND OTHER ABBREVIATIONS

AMA	Advanced Measurement Approaches
AT1	Additional Tier I
BCBS	Basel Committee on Banking Supervision
BCPs	Basel Core Principles for Effective Banking Supervision
BIA	Basic Indicator Approach
BIS	Bank for International Settlements
CAR	Capital Adequacy Ratio
CET1	Common Equity Tier I
CUSIP	Committee on Uniform Securities Identification Procedures
PSEs	Claims on Public Sector Entities
CCFs	Credit Conversion Factors
CCR	Counterparty Credit Risk
CCF	Credit Conversion Factor
CEA	Credit Equivalent Amount
CR	Credit Risk
CRM	Credit Risk Mitigants
CRMs	Credit Risk Mitigation Techniques
DTAs	Deferred Tax Assets
DTLs	Deferred Tax Liabilities
DvP	Delivery-versus-Payment
ECAs	Export Credit Agencies
ECAI	External Credit Assessment Institution
ECB	European Central Bank
FRAs	Forward Rate Agreements
FX	Foreign Exchange
ICAAP	Internal Capital Assessment Process
ICCMCS	International Convergence of Capital Measurement and Capital Standards
IMF	International Monetary Fund
IMM	Internal Models Method

IOSCO	International Organisation of Securities Commissions
IPO	Initial Public Offering
IRBA	Internal Ratings Based Approach
IRRBB	Interest Rate Risk in the Banking Book
ISIN	International Securities Identification Numbers
LC	Letter of Credit
LTV	Loan-to-Value ratio
MIS	Management Information Systems
MR	Market Risk
MDBs	Multilateral Development Banks
NBFIRA	Non-Bank Financial Institutions Regulatory Authority
OR	Operational Risk
OECD	Organisation for Economic Cooperation and Development
OTC	Over-the-Counter
PvP	Payment-versus-Payment
PSE	Public Sector Entity
RC	Replacement Costs
RWAs	Risk-weighted Assets
SA	Standardised Approach
SP	Specific Provisions
SPV	Special Purpose Vehicle
SMM	Standardised Measurement Method
SREP	Supervisory Review and Evaluation Process
SRP	Supervisory Review Process
T1	Tier I
T2	Tier II
TC	Total Capital
UCITS	Undertakings for Collective Investment in Transferable Securities
UC	Unimpaired Capital
VaR	Value at Risk

1. INTRODUCTION

1.1 This document provides guidelines for the implementation of the Revised International Convergence of Capital Measurement and Capital Standards (Basel II), and selected enhancements under Basel III: A Global Regulatory Framework for more Resilient Banks and Banking Systems (Basel III).

1.2 The decision to migrate from Basel I to Basel II was premised upon the fact that, though Basel I rightly recognises credit risk in computing regulatory capital, its crude allocation of risk-weights at portfolio level, without recognising individual or firm level performance differences and internal variations within portfolios, makes it less risk sensitive. It also imposed the same capital adequacy measurement rules on all banks regardless of size, level of sophistication, market and economic structures. Furthermore, Basel I assessed a bank's capital adequacy solely with respect to portfolio credit risk, to the exclusion of other risks that a bank invariably faces, such as market and operational risks.

1.3 In addressing these shortcomings of Basel I, the revised capital standards seek to align regulatory capital requirements with a broad range of underlying risks inherent in a bank's portfolio and provide incentives for banks to improve their risk management systems and governance practier Itices. In recognition of the different levels of sophistication, nature and size of banks, as well as market and economic environments, Basel II also provides a menu of options for calculating the amount of regulatory capital requirements, ranging from the simple basic approaches to more advanced approaches designed for large, complex and internationally-active banks. Similarly, a system of national discretions, including timing and scope of implementation, have been built into the Basel II framework to allow greater flexibility for different jurisdictions to customise the capital adequacy measurement rules and capital standards to country specific circumstances. This is a significant innovation as the Basel II framework provides a menu of options for determining the regulatory capital charge for credit, market and other operational risks. It has, therefore, replaced the "one-size fits all" approach of the Basel I Capital Accord with a global capital standard that allows banks and supervisory authorities to select approaches most appropriate for the country's financial market infrastructure.

1.4 Basel II provides a menu of options for all banks, from the less sophisticated banks to more complex, sophisticated banks. It also introduces three reinforcing pillars, namely, the Minimum Capital Requirements (Pillar I), Supervisory Review Process (Pillar II) and Market Discipline (Pillar III). Under the Pillar I of the revised framework, in addition to credit risk, an explicit computation of regulatory capital for market risk and operational risk is introduced.

1.5 Following the global financial crisis, the Group of Governors and Heads of Supervision announced efforts to significantly strengthen the current capital requirements by introducing "capital buffers" (capital conservation buffer and countercyclical buffer), the leverage ratio and new liquidity standards, through what has become known as Basel III. The purpose of the "capital conservation buffer", which is set at 2.5 percent above the

regulatory capital requirement, and met with common equity, is to ensure that a bank maintains a capital cushion to be used during periods of distress. Regulators also have, at their disposal, the use of the "countercyclical capital buffer[1]", set at a range of 0 - 2.5 percent. The leverage ratio is another measure that is introduced to supplement the risk-based capital requirements, and it is aimed at constraining leverage in the banking sector. However, though the Bank will require a bank to comply with the Basel III requirements, it will not enforce the "capital buffers" and the leverage ratio at this stage. Further guidance will be provided to the market at an appropriate future time.

[1]The countercyclical capital buffer ensures that a bank acts as a shock absorber instead of a transmitter of risk to the financial system and broader economy. It focuses on excessive credit growth that might lead to the buildup of system-wide risk.

2. THE STRATEGY FOR THE IMPLEMENTATION OF BASEL II IN BOTSWANA

2.1 The Bank's strategy for the implementation of Basel II in Botswana has been designed in recognition of the need of an orderly transition, to ensure that the Botswana banking sector's transition to Basel II constitutes a well-managed qualitative shift in internal risk management and governance practices, as well as institutional and supervisory arrangements on the regulatory side. It follows, therefore, that the Bank, as a supervisory authority, must also ensure fulfillment of a much higher level of compliance with the Basel Core Principles for Effective Banking Supervision (BCPs), as arrangements are being made for transition towards the more advanced approaches under the Basel II frameworks.

2.2 Consultations with the market have revealed that the Botswana banking sector is characterised by, inter-alia, a lack of qualifying historical data and internally developed data models suitable for the effective derivation of the critical parameters necessary for Basel II advanced approaches. On this basis, and in addition to the variations in the levels of sophistication of banks, the Bank has decided that the implementation of Basel II in Botswana commences with a "parallel run" of Basel I and Basel II simple approaches in 2014/2015, culminating in the adoption of the advanced approaches by qualifying banks on July 1, 2019. Therefore, effective July 1, 2018, qualifying banks will be allowed to apply to the Bank to opt for the advanced approaches, based on the minimum standards that will be promulgated in due course.

2.3 Effective January 1, 2016, a bank will be required to adopt the Standardised Approach (SA) for credit risk and Standardised Measurement Method (SMM) for market risk; as well as a choice between the Basic Indicator Approach (BIA) and the Standardised Approach for operational risk. The Bank considers that a prudent and gradual implementation approach should recognise and accommodate realities such as the absence of historical datasets, domestic credit rating agencies, rated counterparties (given the predominantly retail nature of the banking sector)**,** as well as the small size and low prevalence of corporate sector listings, all of which could serve as alternative sources of parametric data.

2.4 Consistent with the comments and suggestions by the majority of banks, a parallel run of Basel I and II/III has provided useful information on the impact of the new capital adequacy measurement approaches on, inter alia, levels of capital in the banking system, bank's risk management systems and regulatory capacity to monitor effective compliance with the new capital requirements.

2.5 Though some banks in the market have expressed readiness to implement some aspects of the advanced approaches under Basel II, the Bank, in consultation with the market, has opted to adopt a more gradual approach that will, as a minimum, accommodate the least prepared banks in the market, while providing scope for eligible banks to progress to the more advanced approaches at a faster pace. This implementation strategy will ensure baseline comparability for banks at all stages of the implementation process, which is essential for achieving competitive equality.

2.6 The successful implementation of Basel II depends, to a greater extent, on adequately trained staff, the existence of a robust financial infrastructure, in the form of strong legal and regulatory framework, accounting and auditing standards, and improved quality and availability of credit information. Therefore, all stakeholders to the implementation process must ensure that these issues, as applicable, are well entrenched in their respective implementation plans.

3. SCOPE OF APPLICATION

3.1 The new capital adequacy framework requires that supervisory agencies should be able to test and ensure that regulated entities are always adequately capitalised on a stand-alone and consolidated basis. To this end, the framework has outlined a set of requirements against which regulated entities should be assessed to determine their capital adequacy. The Basel II frameworks have also defined conditions under which certain long-term funds and investments may be recognised or derecognised as part of a bank's capital.

(a) Capital Adequacy Assessment

3.2 All regulated entities will be required to establish appropriate systems, which will enable them to accurately determine the adequacy of their levels of capital, for the existing business risks. A bank's Board will also be expected to ensure that annual tests to obtain independent assurance about the adequacy of bank's capital are carried out. Furthermore, all regulated entities must be able to demonstrate the adequacy of their capital bases to the Bank, as may be required, either during an on-site examination and/or through the off-site monitoring process (OSS), using information submitted through statutory returns.

(b) Investments in Commercial Entities

3.3 Consistent with Section 17(10) of the Banking Act (CAP 46:04) (Act), no bank shall, directly or indirectly, acquire or hold any part of the share capital of any financial, commercial, agricultural, industrial or other undertakings, except such share holdings as may be acquired in the course of satisfaction of debts due to it. For such cases, a risk-weight of 1 250 percent shall apply.

(c) Minority Investments (non-controlling interests) and other Capital Issued out of Consolidated Subsidiaries that is held by Third Parties

Common shares issued by consolidated subsidiaries

3.4 Minority interest arising from the issue of common shares by a fully consolidated subsidiary of a bank, may receive recognition in Common Equity Tier I (CET1) Capital only if: (1) the instrument giving rise to the minority interest would, if issued by a bank, meet all the criteria for classification as common shares, for regulatory purposes: and (2) the subsidiary that issued the instrument is itself a bank[2]. The amount of minority interest meeting the criteria above that will be recognised in consolidated CET1 capital will be calculated as follows[3]:

[2] Minority interests in a subsidiary that is a bank is strictly excluded from the parent bank's common equity if the parent bank or affiliate has entered into any arrangements to fund directly or indirectly minority investments in the subsidiary, whether through an SPV or through another vehicle or arrangement. The treatment outlined above, thus, is strictly available where all minority investments in a bank subsidiary solely represent genuine third party common equity contributions to the subsidiary.

[3] See Annexure 9 for Illustrative example.

(i) Total minority interest meeting the two criteria above, minus the amount of the surplus CET1 capital of the subsidiary attributable to the minority shareholders.

(ii) The surplus CET1 capital of the subsidiary is calculated as the CET1 capital of the subsidiary minus the lower of:

- the minimum CET1 capital requirement of the subsidiary; and
- the portion of the consolidated minimum CET1 capital.

(iii) The surplus CET1 capital that is attributable to the minority shareholders is calculated by multiplying the surplus CET1 capital by the percentage of CET1 capital that is held by minority shareholders.

Total Tier I Qualifying Capital Issued by Consolidated Subsidiaries

3.5 Tier I capital instruments issued by a fully consolidated subsidiary of a bank, to third party investors (including amounts under paragraph 3.4), may receive recognition in Tier I capital of a bank, only if the instruments would, if issued by a bank, meet all of the criteria for classification as Tier I capital. The amount of this capital that will be recognised in Tier I capital will be calculated as follows:

(i) Total tier I capital of the subsidiary issued to third parties, minus the amount of the surplus Tier I capital of the subsidiary attributable to the third party investors.

(ii) Surplus tier I capital of the subsidiary is calculated as the Tier I capital of the subsidiary minus the lower of:

- the minimum Tier I capital requirement of the subsidiary (7.5 percent of risk-weighted assets); and
- the portion of the consolidated minimum Tier I capital requirement that relates to the subsidiary.

(iii) The amount of surplus tier I capital that is attributable to third party investors is calculated by multiplying the surplus Tier I capital by the percentage of Tier I capital that is held by third party investors.

3.6 The amount of this Tier I capital that will be recognised in Additional Tier I capital will exclude amounts recognised in CET1 under paragraph 3.4.

Q*ualifying Total Capital Issued by Consolidated Subsidiaries*

3.7 Total capital instruments (i.e., Tier I and Tier II capital instruments) issued by a fully consolidated subsidiary of a bank to third party investors (including amounts under paragraph 3.5 and 3.6), may receive recognition as part of Total Capital, only if the instruments would, if issued by a bank, meet all of the criteria for classification as Tier I or Tier II capital. The amount of this capital that will be recognised in consolidated Total Capital will be calculated as follows:

(i) Total capital instruments of the subsidiary issued to third parties minus the amount of the surplus total capital of the subsidiary attributable to the third party investors.

(ii) Surplus total capital of the subsidiary is calculated as the Total Capital of the subsidiary minus the lower of:

- the minimum total capital requirement of the subsidiary (15 percent of risk-weighted assets); and
- the portion of the consolidated minimum total capital requirement that relates to the subsidiary.

(iii) The amount of the surplus total capital that is attributable to third party investors is calculated by multiplying the surplus Total Capital by the percentage of Total Capital that is held by third party investors.

3.8 The amount of Total Capital that will be recognised as part of Tier II capital will exclude amounts recognised in CET1 capital under paragraph 3.4, and amounts recognised as part of Additional Tier I capital under paragraph 3.6.

3.9 Where a bank has issued capital to third parties out of a special purpose vehicle (SPV), none of this capital should be included as part of CET1 capital. However, such capital can be included in consolidated Additional Tier I capital or Tier II capital, and treated as if the bank itself had issued the capital, provided:

(i) the capital meets or exceeds all the relevant qualifying criteria for inclusion in Additional Tier I capital or Tier II capital; and

(ii) the only asset of the SPV is its investment in the capital of the bank in a form that meets or exceeds all the relevant qualifying criteria (as required by criterion (o) for Additional Tier I capital and criterion (i) for Tier II capital).

3.10 In cases where the capital has been issued to third parties through an SPV, via a fully consolidated subsidiary of a bank, such capital may, subject to the requirements of paragraph 3.9 above, be treated as if the subsidiary itself had issued it directly to the third parties, and may be included in the bank's consolidated Additional Tier I or Tier II capital, in accordance with the treatment outlined in paragraphs 3.5 and 3.7.

(d) **Investments in the Capital of Banking, Financial and Insurance Entities that are outside the scope of Regulatory Consolidation and where the Bank does not own more than 10 percent of the Issued Common Share Capital of the Entity**

3.11 The regulatory adjustment described in this section applies to investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation and where the bank does not own or control, directly or indirectly, more than 10 percent of the issued common share capital of the entity. In addition:

(a) Investments include direct, indirect[4] and synthetic holdings of capital instruments (e.g., holdings of index securities);

(b) In addition to common stock, capital includes all other types of cash and synthetic instruments (e.g., subordinated debt);

(c) Holdings in both the banking book and the trading book are to be included. It is the net long position that is to be included (i.e., gross long position net of short position in the same underlying exposure, where the maturity of the short position either matches the maturity of the long position or has a residual maturity of at least one year). Underwriting positions held for five working days or less must be excluded;

(d) If the capital instrument of the entity in which the bank has invested does not meet the qualifying criteria for CET1, Additional Tier I or Tier II capital of the bank, the capital is to be considered common shares for the purpose of this regulatory adjustment; and

(e) Prior approval from the Bank of Botswana must be sought, to exclude temporarily, investments made in the context of resolving or providing financial assistance to reorganise a distressed institution. In this case, the full amount of the investment must be appropriately risk-weighted as per the standardised approach for credit risk or market risk rules (as applicable).

3.12 If the total of all investments listed above, in aggregate, exceed 10 percent of the bank's common equity (after applying all other regulatory adjustments in full), then the amount in excess of the 10 percent must be deducted from the relevant tier of capital, applying a corresponding deduction approach. This means the deduction should be applied to the same component of capital for which the capital would qualify, if it was issued by the bank itself. Accordingly, the amount to be deducted from common equity should be calculated as the total of all holdings which, in aggregate, exceed 10 percent of the bank's common equity (as per above) multiplied by the common equity holdings, as a percentage of the total capital holdings. This would result in a common equity deduction which corresponds to the proportion of total capital holdings held in common equity. Similarly, the amount to be deducted from Additional Tier I capital should be calculated as the total of all

[4] Indirect holdings are exposures or parts of exposures that, if a direct holding loses its value, will result in a loss to the bank substantially equivalent to the loss in the value of direct holding.

holdings which in aggregate exceed 10 percent of the bank's common equity (as per above) multiplied by the Additional Tier I capital holdings, as a percentage of the total capital holdings.

3.13 The amount to be deducted from Tier II capital should be calculated as the total of all holdings which in aggregate, exceed 10 percent of the bank's common equity (as per above) multiplied by the Tier II capital holdings, as a percentage of the total capital holdings.

3.14 If, under the corresponding deduction approach, a bank is required to make a deduction from a particular tier of capital and it does not have enough of that tier of capital to satisfy that deduction, the shortfall will be deducted from the next higher tier of capital e.g., if a bank does not have enough Additional Tier I capital to satisfy the deduction, the shortfall will be deducted from CET1 capital.

3.15 Amounts below the threshold, which are not deducted, will continue to be appropriately risk-weighted. Thus, instruments in the trading book will be treated as per the market risk rules and instruments in the banking book should be treated as per the standardised approach for credit risk (as applicable). For the application of risk-weights, the amount of the holdings must be allocated on a pro-rata basis, between those below and those above the threshold.

(e) Significant Investments in the Capital of Banking, Financial and Insurance Entities that are outside the Scope of Regulatory Consolidation[5]

3.16 The regulatory adjustment described in this section applies to investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, where the bank owns more than 10 percent of the issued common share capital of the issuing entity or where the entity is an affiliate[6] of the bank. In addition:

(a) Investments include direct, indirect and synthetic holdings of capital instruments (e.g., holdings of index securities);

(b) In addition to common stock, capital includes all other types of cash and synthetic instruments (e.g., subordinated debt);

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[5] Investments in entities that are outside of the scope of regulatory consolidation refers to investments in entities that have not been consolidated at all or have not been consolidated in such a way as to result in their assets being included in the calculation of consolidated risk-weighted assets of the group.

[6] An affiliate of a bank is defined as a company that controls, or is controlled by, or is under common control with, the bank. Control of a company is defined as (1) ownership, control, or holding with power to vote 20 percent or more of a class of voting securities of the company; or (2) consolidation of the company for financial reporting purposes.

(c) Holdings in both the banking book and the trading book are to be included. It is the net long position that is to be included (gross long position net of short position in the same underlying exposure where the maturity of the short position either matches the maturity of the long position or has a residual maturity of at least one year). Underwriting positions held for five working days or less must be excluded;

(d) If the capital instrument of the entity in which the bank has invested does not meet the criteria for Common Equity Tier I, Additional Tier I or Tier II capital of the bank, the capital is to be considered common shares for the purpose of this regulatory adjustment; and

(e) Prior supervisory approval must be sought with the Bank of Botswana, to exclude temporarily investments made in the context of resolving or providing financial assistance to reorganise a distressed institution. In this case, the full amount of the investment be appropriately risk-weighted as per the standardised approach for credit risk or market risk rules (as applicable).

3.17 All investments included above that are not common shares must be fully deducted following a corresponding deduction approach.[7] This means the deduction should be applied to the same tier of capital for which the capital would qualify if it was issued by the bank itself. If the bank is required to make a deduction from a particular tier of capital and it does not have enough of that tier of capital to satisfy that deduction, the shortfall will be deducted from the next higher tier of capital (e.g., if a bank does not have enough Additional Tier I capital to satisfy the deduction, the shortfall will be deducted from CET1).

3.18 Investments included above that are common shares will be subject to the threshold treatment (see para 4.7).

(f) Reciprocal Cross Holdings in the Capital of Banking, Financial and Insurance Entities

3.19 Reciprocal cross holdings of capital that are designed to artificially inflate the capital position of a bank will be deducted in full. A bank must apply a "corresponding deduction approach" to such investments in the capital of other banks, other financial institutions and insurance entities. This means the deduction should be applied to the same component of capital for which the capital would qualify if it was issued by the bank itself.

(g) Investments in Own Shares (Treasury Stock)

3.20 All of a bank's investments in its own common shares, whether held directly or indirectly, will be deducted in the calculation of CET1 capital (unless already derecognised under the accounting standards). In addition, any own stock which the bank could be contractually

[7] Threshold deductions shall only apply to significant investments in Common Equity Tier 1. Significant investment in Additional Tier 1and Tier 2 must be fully deducted.

obliged to purchase, should be deducted in the calculation of CET1. The treatment described will apply irrespective of the location of the exposure in the banking book or trading book. This deduction is necessary to avoid the double counting of a bank's own capital.

3.21 Following the same approach outlined above, a bank must deduct investments in its own Additional Tier I capital in the calculation of its Additional Tier I capital, and must deduct investments in its own Tier II capital in the calculation of its Tier II capital.

(h) **Defined Benefit Pension Fund Assets and Liabilities**

3.22 Defined benefit pension fund liabilities, included on the statement of financial position, must be fully recognised in the calculation of CET1 capital (i.e., they must be excluded from calculations of CET1 capital). For each defined benefit pension fund asset on the statement of financial position, it should be deducted in the calculation of CET1 capital, net of any associated deferred tax liability, which would be extinguished if the asset should become impaired or derecognised under the national accounting standards. This treatment addresses the concern that assets arising from pension funds may not be capable of being withdrawn and used for the protection of depositors and other creditors of a bank.

(i) **Deferred Tax Assets**

3.23 Deferred tax assets (DTAs) that rely on the future profitability of a bank are to be deducted in the calculation of CET1 capital. Deferred tax assets may be netted with associated deferred tax liabilities (DTLs), only if the DTAs and DTLs relate to taxes levied by the same taxation authority and offsetting is permitted by the relevant taxation authority. Where these DTAs relate to temporary differences (e.g., allowance for credit losses), the amount to be deducted is set out in the "threshold deductions" section below (paragraph 4.7).

(j) **Cash Flow Hedge Reserve**

3.24 The amount of the cash flow hedge reserve that relates to the hedging of items that are not fair valued on the statement of financial position (including projected cash flows) should be derecognised in the calculation of CET1 capital. This means that positive amounts should be deducted and negative amounts should be added back.

3.25 This treatment specifically identifies the element of the cash flow hedge reserve that is to be derecognised for prudential purposes. It removes the element that gives rise to artificial volatility in common equity, as in this case the reserve only reflects the fair value of the derivative, but not the changes in the fair value of the hedged future cash flow.

4. DEFINITION AND COMPOSITION OF CAPITAL

4.1 The capital components, for purposes of this document, shall be as described under Section 13(3) of the Act.

4.2 Total regulatory capital (also referred to as adjusted capital) will consist of the following elements:

Tier I Capital of a Bank

4.3 Tier I capital (going concern capital) is the portion of capital which is permanently and freely available to absorb unanticipated losses without the bank being mandated to cease trading. It comprises CET1 capital and Additional Tier I capital (Basel II enhancements).

Common Equity Tier I (CET1 Capital)

4.4 CET1 capital consists of the sum of the following elements:

(a) Common shares issued by a bank that meet the criteria for classification as common shares for regulatory purposes;

(b) Stock surplus (share premium) resulting from the issue of instruments included in CET1 capital;

(c) Retained earnings, cumulative general reserves set aside as part of the appropriation from net profit in any given financial year, including interim profits, **but these should be audited. P**roposed dividends not yet paid are to be deducted;

(d) Accumulated other comprehensive income[8] and other disclosed reserves;

(e) Common shares issued by consolidated subsidiaries of a bank and held by third parties (i.e., minority interest) that qualify for inclusion in CET1 capital; and

(f) Regulatory adjustments[9] applied in the calculation of CET1 capital.

Criteria for Classification as part of CET1 Capital

4.5 For purposes of paragraph 4.4 above, CET1 capital shall have the following characteristics:

(a) Represents the most subordinated claim in the liquidation of a bank;

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[8] Accumulated other comprehensive income, relating to unrealised gains/(losses) from bonds and treasury bills held as available for sale, will not be recognised as part of capital elements, since these instruments do not form part of capital, and therefore, any associated gains/losses from them are disqualified as well. However, gains on equity investments should be restricted to equity investments in banking, financial and insurance entities.

[9] See paragraph 4.6.

(b) It is entitled to a claim on the residual assets that is proportional with its share of issued capital, after all senior claims have been repaid in liquidation (i.e., has an unlimited and variable claim, not a fixed or capped claim);

(c) The principal is perpetual and never repaid outside of liquidation (setting aside discretionary repurchases or other means of effectively reducing capital in a discretionary manner that is allowable under the relevant law);

(d) A bank does nothing to create an expectation at issuance that the instrument will be bought back, redeemed or cancelled nor do the statutory or contractual terms provide any feature which might give rise to such an expectation;

(e) Distributions are paid out of distributable items (retained earnings included). The level of distributions is not in any way tied or linked to the amount paid in at issuance and is not subject to a contractual cap (except to the extent that a bank is unable to pay distributions that exceed the level of distributable items);

(f) There are no circumstances under which the dividend payment or distributions are obligatory. Non- payment is, therefore, not an event of default;

(g) Distributions are paid only after all legal and contractual obligations have been met and payments on more senior capital instruments have been made. This means that there are no preferential distributions, including in respect of other elements classified as the highest quality issued capital;

(h) It is the issued capital that takes the first and proportionately greatest share of any losses, as they occur. Within the highest quality capital, each instrument absorbs losses on a going concern basis, proportionately and *pari passu* with all the others;

(i) The paid in amount is recognised as equity capital (i.e., not recognised as a liability) for determining the statement of financial position insolvency;

(j) The paid in amount is classified as equity under the relevant accounting standards;

(k) It is directly issued and paid-in and a bank cannot directly or indirectly have funded the purchase of the instrument;

(l) The paid in amount is neither secured nor covered by a guarantee of the issuer or related entity or subject to any other arrangement that legally or economically enhances the seniority of the claim;

(m) It is only issued with the approval of the owners of the issuing bank, either given directly by the owners or, if permitted by applicable law, given by the Board of Directors or by other persons duly authorised by the owners; and

(n) It is clearly and separately disclosed on a bank's statement of financial position.

Regulatory Adjustments in the CET1 capital

4.6 The following items shall be deducted from the CET1 capital of a bank, subject to threshold deductions, as outlined under paragraph 4.7;

(a) Goodwill and other intangible assets[10];

(b) Advances of a capital nature[11] granted to connected persons[12];

(c) Deferred tax assets (DTA) that rely on the future profitability are to be deducted;

(d) Investments in own shares, whether directly or indirectly;

(e) Unrealised revaluation losses on investments in securities;

(f) Defined benefit pension fund assets;

(g) Reciprocal holdings in the capital of banking, financial and insurance entities;

(h) Cash flow hedge reserve; and

(i) Gains on sales related to securitisation transactions.

Threshold Deductions

4.7 Instead of a full deduction, the following items may each receive limited recognition when calculating the CET1 capital of a bank, with recognition capped at 10 percent of a bank's common equity (after the application of all regulatory adjustments set out under paragraph 4.6):

(a) Significant investments in the common shares of unconsolidated financial institutions (banks, insurance and other financial entities);

(b) Deferred tax assets that arise from temporary differences;

(c) Mortgage servicing rights[13];

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10 A bank may use IFRS 3 for the definition of goodwill and IAS38 for the definition of intangible assets to determine which assets are to be classified as such and are thus deductible.

11 Defined as injection of risk capital to an entity owned, directly or indirectly, by a connected person, other than the provision of a loan.

12 Includes all of the following without limitations: (1) Significant shareholder; (2) Member of a board of directors or audit committee; (3) Principal Officer and senior management officials; (4) Any person who is related to such significant shareholder, member of the board of directors or audit committee, Principal Officer or senior management official by family or business interest; (5) Subsidiary of a bank; (6) Company or undertaking in which at least a 5 percent interest is held by a bank; (7) Parent company of a bank; (8) Company that is under common control with a bank; and (9) A company that holds at least a 5 percent interest of another company in which a bank holds at least a 5 percent interest.

13 A contractual agreement where the right, or rights, to service an existing mortgage are sold by the original lender to another party who specialises in the various functions of servicing mortgages. Common rights included are the right to collect mortgage payments monthly, set aside taxes and insurance premiums in an escrow account[13], and forward interest and

(d) Aggregate investments by a bank or its subsidiary in the equity of other banks and financial institutions, where the aggregate investment is equal to or greater than 10 percent of the capital of the institutions in which the investment is made. The amount above the 10 percent threshold shall be deducted from CET1 capital, and the amount below the threshold shall be appropriately risk-weighted. That is, the excess above the 10 percent threshold must be deducted and the threshold amount shall be risk-weighted as appropriate; and

(e) Effective January 1, 2016, a bank must deduct the amount by which the aggregate of the three items above (a,b,c) exceeds 15 percent of its common equity component of Tier I (calculated prior to the deduction of these items but after application of all other regulatory adjustments applied in the calculation of CET1). The items included in the 15 percent aggregate limit are subject to full disclosure. As of January 1, 2021, the calculation of the 15 percent limit will be subject to the following treatment: the amount of the three items that remains recognised after the application of all regulatory adjustments must not exceed 15 percent of the CET1 capital, calculated after all regulatory adjustments. (See Annex 8 for an example).

(f) The amount of the three items (a,b,c) not deducted in the calculation of CET1 capital (threshold amounts) will be treated as other assets and risk-weighted at 250 percent.

Additional Tier I Capital of a Bank

4.8 Additional Tier I capital consists of the sum of the following elements:

(a) Instruments issued by a bank that meet the criteria for inclusion in Additional Tier I capital (and are not included in CET1 capital);

(b) Share premium (stock surplus) resulting from the issue of instruments included in Additional Tier I capital;

(c) Instruments issued by consolidated subsidiaries of a bank and held by third parties that meet the criteria for inclusion in Additional Tier I capital, and are not included in CET1 capital, subject to terms and conditions at paragraph 3.5; and

(d) Regulatory adjustments applied in the calculation of Additional Tier I capital.

Criteria for Classification as Additional Tier I Capital

4.9 For purposes of paragraph 4.8 above, qualifying instruments shall be subject to the following conditions:

(a) Issued and paid-in;

principle to the mortgage lender. Mortgage servicing may be performed by the original lender, or the lender may sell the right to service a mortgage to another company, which performs the service for a fee.

(b) Subordinated to depositors, general creditors and subordinated debt of a bank;

(c) Is neither secured nor covered by a guarantee of the issuer or related entity, or other arrangement that legally or economically enhances the seniority of the claim vis-à-vis bank creditors;

(d) Is perpetual, i.e., there is no maturity date and there are no step-ups or other incentives to redeem;

(e) May be callable at the initiative of the issuer only after a minimum of five years:

(i) To exercise a call option, a bank must receive prior Bank of Botswana approval; and

(ii) A bank must not do anything which creates an expectation that the call will be exercised;

(f) A bank must not exercise a call unless:

(i) It replaces the called instrument with capital of the same or better quality and the replacement of this capital is done at conditions which are sustainable for the income capacity of a bank[14]; or

(ii) A bank demonstrates that its capital position will be well above the prescribed minimum capital requirement, following the exercise of the call option.

(g) Any repayment of principal (e.g., through repurchase or redemption) must be with prior Bank of Botswana and a bank should not assume or create market expectations that supervisory approval will be given;

(h) Dividend/coupon discretion:

(i) The bank must have full discretion at all times to cancel distributions/payments;

(ii) Cancellation of discretionary payments must not be an event of default;

(iii) A bank must have full access to cancelled payments to meet obligations as they fall due; and

(iv) Cancellation of distributions/payments must not impose restrictions on a bank, except in relation to distributions to common stockholders;

(i) Dividends/coupons must be paid out of distributable items;

[14] Replacement issues can be concurrent with, but not after the instrument is called.

(j) The instrument cannot have a credit sensitive dividend feature, that is, a dividend/coupon that is reset periodically, based in whole or in part, on a bank's credit standing;

(k) The instrument cannot contribute to liabilities exceeding assets, if such statement of financial position test forms part of national insolvency law;

(l) Instruments classified as liabilities for accounting purposes must have principal loss absorption through either (i) conversion to common shares at an objective pre-specified trigger point or (ii) a write-down mechanism which allocates losses to the instrument at a pre-specified trigger point. The write-down will have the following effects:

(i) Reduce the claim of the instrument in liquidation;
(ii) Reduce the amount re-paid when a call is exercised; and
(iii) Partially or fully reduce coupon/dividend payments on the instrument;

(m) Neither a bank nor a related party over which a bank exercises control or significant influence can have purchased the instrument, nor can a bank directly or indirectly have funded the purchase of the instrument;

(n) The instrument cannot have any features that hinder recapitalisation, such as provisions that require the issuer to compensate investors if a new instrument is issued at a lower price during a specified time frame; and

(o) If the instrument is not issued out of an operating entity or the holding company in the consolidated group (e.g., a special purpose vehicle – "SPV"), proceeds must be immediately available without limitation to an operating entity[15] or the holding company in the consolidated group, in a form which meets or exceeds all of the other criteria for inclusion in Additional Tier I capital.

Regulatory Adjustments in Additional Tier I Capital

4.10 The following items shall be fully deducted from Additional Tier I Capital:

(a) Direct investments in own Additional Tier I capital, net of any short positions, if the short positions involve no counterparty risk;

(b) Indirect investments in own Additional Tier I capital (e.g., through holdings of index securities in which the bank itself is a constituent), net of any short positions;

[15] An operating entity is an entity set up to conduct business with clients with the intention of earning a profit in its own right.

(c) Any own Additional Tier I capital, which the bank could be contractually obliged to purchase;

(d) Reciprocal cross holdings and the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation[16]; and

(e) Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (i.e., where the bank owns more than 10 percent of the issued common share capital or where the entity is an affiliate).

Additional Tier I Capital Threshold Deductions

4.11 Instead of a full deduction, aggregate amount of non-significant investments in Additional Tier I capital of unconsolidated financial institutions (banks, insurance and other financial entities), shall receive limited recognition when calculating Additional Tier I capital, with recognition capped at 10 percent of the bank's common equity (after the application of all regulatory adjustments set out under paragraph 4.10). That is, the excess above the 10 percent threshold must be deducted and the threshold amount shall be risk-weighted as appropriate.

Tier II Capital

4.12 The objective of Tier II capital is to provide loss absorption on a gone-concern basis.

4.13 Tier II capital consists of the sum of the following elements:

(a) Instruments issued by a bank that meet the criteria for inclusion in Tier II capital (and are not included in Tier I capital);

(b) Share premium (stock surplus) resulting from the issue of instruments included in Tier II capital;

(c) Instruments issued by consolidated subsidiaries of a bank and held by third parties that meet the criteria for inclusion in Tier II capital, and are not included in Tier I capital (minority interests);

(d) General provisions/general loan loss reserves - Provisions or loan-loss reserves held for future, presently unidentified losses, which are freely available to meet losses which subsequently materialise. NB: Provisions ascribed to identified deterioration of particular assets or known liabilities, whether individual or grouped, do not qualify to be included in Tier II capital. Furthermore, general provisions/general loan-loss reserves eligible for inclusion in Tier II capital will be limited to a maximum of 1.25 percentage points of credit risk-weighted assets;

[16]Holdings of Additional Tier 1 capital or similar instruments that are part of a reciprocal cross holding arrangement.

(e) Current year's unpublished profits; and

(f) Regulatory adjustments applied in the calculation of Tier II Capital.

Criteria for Inclusion in Tier II Capital

4.14 An instrument has to meet or exceed the following minimum set of criteria in order for it to be included in Tier II capital:

(a) Issued and paid-in;

(b) Subordinated to depositors and general creditors of a bank;

(c) Is neither secured nor covered by a guarantee of the issuer or related entity or other arrangement that legally or economically enhances the seniority of the claim vis-à-vis depositors and general bank creditors;

(d) Maturity:

(i) Minimum original maturity of at least five years;

(ii) Recognition in regulatory capital in the remaining five years before maturity will be amortised on a straight line basis. That is, during the last five years to maturity, a cumulative discount factor (amortization) of 20 percent per annum will be applied to reflect the diminishing value of these instruments as a continuing source of financial strength, and

(iii) There are no step-ups or other incentives to redeem.

(e) May be callable at the initiative of the issuer only after a minimum of five years:

(i) To exercise a call option, a bank must receive prior Bank of Botswana approval;

(ii) A bank must not do anything that creates an expectation that the call will be exercised[17];

(iii) A bank must not exercise a call unless:

- It replaces the called instrument with capital of the same or better quality and the replacement of this capital is done at conditions which are sustainable for the income capacity of the bank[18]; or

[17] An option to call the instrument after five years, but prior to the start of the amortisation period, will not be viewed as an incentive to redeem, as long as the bank does not do anything that creates an expectation that the call will be exercised at this point.

[18] Replacement issues can be concurrent with, but not after the instrument is called.

- A bank demonstrates that its capital position is well above the minimum capital requirements after the call option is exercised[19].

(f) The investor must have no rights to accelerate the repayment of future scheduled payments (coupon or principal), except in bankruptcy and liquidation;

(g) The instrument cannot have a credit sensitive dividend feature, that is a dividend/coupon that is reset periodically based in whole or in part on the banking organisation's credit standing;

(h) Neither the bank nor a related party over which the bank exercises control or significant influence can have purchased the instrument, nor can the bank directly or indirectly have funded the purchase of the instrument; and

(i) If the instrument is not issued out of an operating entity or the holding company in the consolidated group (eg a special purpose vehicle – "SPV"), proceeds must be immediately available without limitation to an operating entity[20] or the holding company in the consolidated group in a form which meets or exceeds all of the other criteria for inclusion in Tier II Capital.

Regulatory Adjustments in Tier II Capital

4.15 The following items shall be fully deducted from Tier II Capital:

(a) Direct investments in own Tier II capital, net of any short positions, if the short positions involve no counterparty risk;

(b) Indirect investments in own Tier II Capital (e.g., through holdings of index securities in which a bank itself is a constituent), net of any short positions;

(c) Any own Tier II capital, which the group could be contractually obliged to purchase;

(d) Reciprocal cross holdings and the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation[21]; and

(e) Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (i.e., where a bank owns more than 10 percent of the issued common share capital or where the entity is an affiliate).

[19] Minimum refers to the regulator's prescribed minimum requirement, which may be higher than the Basel III Pillar 1 minimum requirement.

[20] An operating entity is an entity set up to conduct business with clients with the intention of earning a profit in its own right.

[21] Holdings of Tier 2 capital or similar instruments that are part of a reciprocal cross holding arrangement.

Tier II Capital Threshold Deductions

4.16 Instead of a full deduction, the aggregate amount of non-significant investments in Tier II capital of unconsolidated financial institutions (banks, insurance and other financial entities), shall receive limited recognition when calculating Tier II capital, with recognition capped at 10 percent of the bank's common equity (after the application of all regulatory adjustments set out under paragraph 4.15). That is, the excess above 10 percent threshold must be deducted and the threshold amount shall be risk-weighted as appropriate.

Limits and Minima

4.17 The following limits have been abolished:

(a) Tier II capital of a bank limited to 100 percent of Tier I capital

(b) Subordinated Debt of a bank limited to 50 percent of Tier I capital

5. TRANSITIONAL ARRANGEMENTS

Non-qualifying Capital Instruments

5.1 A bank will phase out, over a period of five years, beginning January 1, 2016, capital instruments that no longer qualify as Tier I capital or Tier II capital. Fixing the base at the nominal amount of such outstanding instruments on January 1, 2016, their recognition will be capped at 80 percent from January 1, 2016, with the cap reducing by 20 percentage points in each subsequent year. This cap applies to each tier of capital separately and refers to the total amount of outstanding instruments that no longer meet the relevant qualifying criteria. To the extent that the instrument is redeemed, or its recognition in capital is amortised, after January 1, 2016, the nominal amount serving as a base is not reduced.

5.2 Only those instruments issued before January 1, 2016 qualify for the above transitional arrangements.

New Regulatory Adjustments

5.3 Regulatory adjustments introduced by the new rules (i.e., items not currently required to be deducted in the existing capital framework), shall be gradually **phased in** over a period of five years, beginning January 1, 2016. In particular, regulatory adjustments will begin at 20 percent of the required adjustments to the relevant tier on January 1, 2016, 40 percent on January 1, 2017, 60 percent on January 1, 2018, 80 percent on January 1, 2019 and 100 percent in January 1, 2020. During this transition period, the balance not deducted from capital will continue to be subject to the existing treatment.

6. CAPITAL ADEQUACY REQUIREMENTS

6.1 A bank shall maintain adequate financial records, including statements of financial position and comprehensive income, to enable the proper calculation of its capital adequacy ratios.

6.2 For a bank or banking group to be considered to be adequately capitalised, it shall, in addition to satisfying the minimum paid-up capital, maintain the following minimum capital ratios:

(a) CET1 Capital must be at least 4.5 percent of risk-weighted assets, at all times;

(b) The Tier I capital ratio shall be calculated as the adjusted Tier I capital[22], divided by the total risk-weighted assets[23] of a bank. The Tier I capital ratio must be at least 7.5 percent of risk-weighted assets at all times.

(c) Total Capital (Tier I Capital plus Tier II Capital) to risk-weighted assets, also referred to as minimum capital adequacy ratio, must be at least 15 percent of risk-weighted assets at all times.

6.3 Table 1 below shows a summary of the minimum regulatory capital requirements.

Table 1: Capital Adequacy Requirements (all numbers in percent)

	Common Equity Tier1	**Additional Tier I**	**Tier I Capital**	**Tier II Capital**	**Total Capital**
Minimum	4.5	3	7.5	7.5	15

6.4 The entire minimum capital adequacy ratio may be satisfied by Tier I capital amount.

[22] Adjusted Tier 1 Capital refers to Tier 1 capital net of regulatory adjustments and threshold deductions.

[23] Risk-weighted assets is equal to the sum of all on and off-balance sheet risk-weighted exposures and 6.7 times the total capital charge for market risk exposures and 6.7 times the total capital requirement for operational risk.

7. COMPUTATION OF CAPITAL ADEQUACY REQUIREMENTS

7.1 The regulatory capital adequacy requirement computations by a bank shall be based on an approach prescribed by the Bank for credit risk, market risk and operational risk. Where applicable, capital charges for other types of risks, not included in the calculation of the regulatory capital ratio (liquidity risk, interest rate risk, business risk and concentration risk), shall be assessed under Pillar 2 of the Basel II framework.

7.2 The formula for the computation of the regulatory capital adequacy ratio shall be:

CAR[24] = UC/(RWA for CR + [(Capital Charge for OR + Capital Charge for MR) * 6.7)] * 100 ≥15%

7.3 Risk-weighted on and off-balance assets for credit risk will be determined by multiplying the credit exposures by the appropriate risk-weights, dependent on the counterparty's risk rating, as applicable.

7.4 The amount of the risk-weighted assets for both operational risk and market risk shall be determined by multiplying the respective capital requirements by 6.7, the result of which is added to the risk-weighted assets for credit risk to come up with the total risk-weighted assets for a bank.

7.5 Each bank shall compute its capital adequacy requirements based on the SA for credit risk, a choice between BIA and SA for operational risk and SMM for market risk.

7.6 Any bank whose CAR falls below the prudential requirement of 15 percent will immediately be placed under a remedial programme, which may include the temporary suspension of lending activity, suspension of dividend payments, statement of financial position restructuring, recapitalisation or the revocation of the licence, in the event all remedial measures fail.

(a) Capital Charge for Credit Risk: The Standardised Approach

(i) External Credit Assessment

7.7 The SA for credit risk involves the measurement of credit risk using standardised risk-weights prescribed by the Basel Committee on Banking Supervision, adopted by Bank of Botswana, and supported by external credit assessments. For purposes of assigning risk-weights for claims on counterparties, a bank shall recognise the ratings of Standard & Poors Ratings Services, Moodys Investors Service and Fitch Ratings. The Bank shall also, at its discretion, recognise the ratings of any other external credit assessment institution (ECAI) upon application by the ECAI, or the bank on behalf of the ECAI, provided that they meet the eligibility criteria specified below.

[24] Capital Adequacy Ratio (CAR); Unimpaired Capital (UC); Risk-weighted Assets (RWA); Credit Risk (CR); Operational Risk (OR); Market Risk (MR).

7.8 A bank must use the chosen ECAIs and their ratings consistently for each type of claim, for both risk-weighting and risk management purposes. A bank will not be allowed to "cherry-pick" the assessments provided by different ECAIs. In the case of unrated exposures, the applicable risk-weight shall be 100 percent or more, as may be prescribed by the Bank from time to time.

7.9 A bank shall only be permitted to use solicited ratings.

7.10 External assessments for one entity within a corporate group cannot be used to risk-weight other entities within the same group.

Multiple Assessments

7.11 If there are two assessments by ECAIs chosen by a bank, which map into different risk-weights, the higher risk-weight will be applied.

7.12 If there are three or more assessments with different risk-weights, the assessments corresponding to the two lowest risk-weights should be referred to and the higher of those two risk-weights will be applied.

Domestic Currency and Foreign Currency Assessments

7.13 Where a borrower's domestic currency ratings are separate from the foreign currency ratings, a bank shall use a borrower's domestic currency rating for exposures denominated in domestic currency and foreign currency ratings for exposures denominated in foreign currency. For example, for an exposure to a South African bank denominated in rand, use South Africa's domestic/local currency rating; and for an exposure to a South African bank denominated, say, in US dollars, use South Africa's foreign currency rating.

7.14 For risk-weighting purposes, only long-term assessments shall be allowed in this capital standard.

Eligibility Criteria for Recognition of ECAIs

7.15 An ECAI must satisfy each of the following six criteria:

(a) ***Objectivity***: The methodology for assigning credit assessments must be rigorous, systematic, and subject to some form of validation based on historical experience. Moreover, assessments must be subject to ongoing review and responsive to changes in the financial condition. Before being recognised by supervisors, an assessment methodology for each market segment, including rigorous back testing, must have been established for at least one year, and preferably three years.

(b) ***Independence***: An ECAI should be independent and should not be subject to political or economic pressures that may influence the rating. The assessment process should be as free as possible from any constraints that could arise in

situations where the composition of the Board of Directors or the shareholding structure of the assessment institution may be seen as creating a conflict of interest.

(c) ***International Access/Transparency***: The individual assessments should be available to both domestic and foreign institutions with legitimate interests and at equivalent terms. In addition, the general methodology used by the ECAI should be publicly available.

(d) ***Disclosure***: An ECAI should disclose the following information: its assessment methodologies, including the definition of default, the time horizon, and the meaning of each rating; the actual default rates experienced in each assessment category; and the deterioration of credit rating, e.g., the likelihood of AA ratings becoming A over time.

(e) ***Resources:*** An ECAI should have sufficient resources to carry out high quality credit assessments. These resources should allow for substantial ongoing contact with senior and operational levels within the entities assessed, in order to add value to the credit assessments. Such assessments should be based on methodologies combining qualitative and quantitative approaches.

(f) ***Credibility:*** To some extent, credibility is derived from the criteria above. In addition, the reliance on an ECAI's external credit assessments by independent parties (investors, insurers, trading partners) is evidence of the credibility of the assessments of an ECAI. The credibility of an ECAI is also underpinned by the existence of internal procedures to prevent the misuse of confidential information. In order to be eligible for recognition, an ECAI does not have to assess firms in more than one country.

7.16 In addition to meeting the eligibility criteria outlined above, a selected ECAI must abide by the International Organisation of Securities Commissions (IOSCO) Code of Conduct Fundamentals for Credit Rating Agencies.

(ii) **Treatment of On-balance Sheet Exposures**

7.17 All credit exposures shall be risk-weighted net of specific provisions.

7.18 On-balance sheet exposures to be risk-weighted under the SA for credit risk shall fall into the following categories, consistent with the Basel II framework:

Claims on Exposures to Sovereigns and their Central Banks

7.19 Claims on sovereigns and their central banks (exposure to sovereigns and their central banks) shall be risk-weighted as follows:

Table 2: Claims on Exposure to Sovereigns and Central Banks

Credit Rating	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk-weight percent	0	20	50	100	150	100

(i) All claims on the Government of Botswana and the Bank of Botswana, which are denominated and funded in Pula, shall be assigned a preferential risk-weight of 0 percent. This preferential risk-weight shall also be applied to exposures fully guaranteed by the Government of Botswana and denominated in Pula; and

(ii) Where a sovereign's foreign currency ratings are separate from the domestic currency ratings, requirements of paragraph 7.13 above shall apply. That is, claims on other sovereigns denominated in currencies other than such countries national currencies, and claims on the Government of Botswana denominated in foreign currency, will be assigned risk-weights based on the foreign currency ratings of that sovereign.

Claims on Exposures to the Bank for International Settlements (BIS) and International Monetary Fund (IMF)

7.20 Claims on the BIS and IMF shall be risk-weighted at 0 percent.

Claims on Exposures to Public Sector Entities[25] (PSEs)

7.21 Claims on domestic PSEs (exposure to recognised parastatals, local authorities and other statutory entities) will be assigned a risk-weight one category less favorable than that assigned to claims on the Botswana Government (option 1 for claims on banks). Claims on foreign PSEs will also be assigned a risk-weight one category less favorable than that assigned to claims on their sovereigns.

Claims on Exposures to Multilateral Development Banks (MDBs)

7.22 Claims on highly rated MDBs[26] shall be assigned a risk-weight of 0 percent. The risk-weights applied to claims on other MDBs will generally be based on external credit assessments as set out under Option 2 for claims on banks (table 3 below), but without a preferential treatment for short-term claims.

[25] PSEs include all statutory banks; Debswana; parastatals; Local Government Authorities; and other wholly owned and/or controlled by Government.

[26] The MDBs eligible for a 0 percent risk-weight are: The World Bank Group; Asian Development Bank; African Development Bank; European Bank for Reconstruction and Development; Inter-American Bank; European Investment Bank; European Investment Fund; Nordic Investment Bank; Caribbean Development Bank; Islamic Development Bank; Council for Europe Development Bank.

Table 3: Claims on Exposures to MDBs

Credit Rating	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk-weight (percent)	20	50	50	100	150	50

Claims on Exposures to Banks and Securities Firms

7.23 Claims on banks shall be assigned risk-weights one category less favorable than their sovereign.

Table 4: Option 1 for Claims on Exposures to Banks

Sovereign Credit Rate	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk-weight (Percent)	20	50	100	100	150	100

7.24 Claims on securities firms will follow the rules for claims on corporates, subject to consultation with NBFIRA.

Claims on Corporates (Exposures to Private Sector Corporates)

7.25 Claims on unrated corporates, including insurance companies, will be assigned a standard risk-weight of 100 percent; no unrated corporate claim may be given a risk-weight lower than that of its sovereign of incorporation. The Bank may, at its sole discretion, vary the standard risk-weight for unrated corporates where a risk-weight higher than 100 percent is warranted. Rated claims on corporates shall be risk-weighted as follows:

Table 5: Claims on Exposures to Corporates

Credit Rate	AAA to AA-	A+ to A-	BBB+ to BB-	Below BB-	Unrated
Risk-weight (percent)	20	50	100	150	100

7.26 Where external credit ratings do not exist for individual corporates, a 100 percent risk-weight shall be applied to all corporate claims, subject to approval by the Bank.

7.27 For venture capital and private equity investments, a 150 percent risk-weight floor or more shall be applied, commensurate with the high risk associated with such assets.

Claims Included in the Regulatory Retail Portfolio (Satisfying the Qualification Criteria)

7.28 Claims that are included in the retail portfolio, which meet the qualifying criteria, shall attract a risk-weight of 75 percent, except as provided under the paragraph for past due loans (paragraph 7.33). Such claims must meet the following criteria:

(a) **Orientation criterion:** The exposure is to an individual person or persons or to a small business;

(b) **Product criterion:** The exposure takes the form of any of the following: revolving credits and lines of credit (including credit cards and overdrafts), personal term loans and leases[27] and small business[28] facilities and commitments. Mortgage loans and securities (such as bonds and equities) are excluded from this category;

(c) **Granularity criterion:** No aggregate exposure to one counterparty[29] should be allowed to exceed 0.2 percent of the overall retail portfolio; and

(d) **Low value of individual exposures:** The maximum aggregated retail exposure to one counterparty and groups of related counterparties must not exceed P10 million.

(e) Other retail portfolio not meeting any of the criteria under (a) to (d) above, will be risk-weighted at 100 percent.

7.29 On an ongoing basis, the Bank will evaluate the risk-weights assigned to the retail portfolio based on the default experience of these exposures and accordingly determine if these exposures warrant a risk-weight higher than 75 percent. This discretion would be applied to the banking industry as a whole.

Claims Secured by Residential Property (owner-occupied residential mortgages)

7.30 Claims secured by residential property, up to P10 million or such other figure as may be determined by the Bank from time to time, shall be risk-weighted at 35 percent, except as set out at paragraph 7.33 for past due loans. This preferential risk-weight is subject to the following conditions:

(a) Lending must be fully-secured by mortgages on residential property;

[27] A lease is a contractual arrangement calling for the lessee (user) to pay the lessor (owner) for use of an asset.

[28] Small business classification should be done in relation to turnover/revenue per annum up to a maximum of P4 million (as defined in the revised statutory returns).

[29] Aggregate exposure means gross amount (i.e., not taking any credit risk mitigation into account) of all forms of debt exposures (e.g., loans or commitments) that individually satisfy the three other criteria. In addition, "to one counterpart" means one or several entities that may be considered as a single beneficiary (e.g., in the case of a small business that is affiliated to another small business, the limit would apply to the bank's aggregated exposure to both businesses).

(b) The residential property must be owner-occupied or rented by the borrower to a third party, but used for residential purposes;

(c) The residential property must be valued according to strict valuation rules[30] and a the bank must ensure that the value of the property is assessed at least once every three years, or more frequently, if market conditions show signs of volatility;

(d) A bank must not only rely on the underlying property provided as collateral, but rather on the borrower's capacity to repay the debt from other sources;

(e) The property must be insured by a recognised third party insurer for fire and other perils throughout the lifespan of the loan;

(f) The Loan-to-Value ratio[31] must not exceed 90 percent. Where the LTV ratio exceeds 90 percent, the excess shall be risk-weighted at 75 percent; and

(g) Other residential property not meeting any of the criteria under (a) to (e) above, will be risk-weighted at 75 percent.

7.31 On an ongoing basis, the Bank will evaluate the risk-weights assigned to claims secured by residential property based on the default experience of these exposures and accordingly determine if these exposures warrant a risk-weight higher than 35 percent. This discretion would be applied to the banking industry as a whole.

Claims Secured by Commercial Real Estate

7.32 Claims secured by commercial real estate will be risk-weighted at 100 percent. That is, loans extended for shopping malls, office buildings, apartments for rent and similar commercial properties, shall be assigned a risk-weight of 100 percent.

Past Due Claims

7.33 For any unsecured portion of any loan (other than a qualifying residential mortgage loan) that is past due for more than 90 days, net of specific provisions (including partial write-offs), shall be assigned risk-weights in line with the table below:

[30] The valuation should be carried out by accredited valuers who are members of the Real Estate Institute. This includes but is not limited to a person who possesses the necessary qualifications, experience and is independent from the credit decision process.

[31] The loan-to-value ratio is defined as outstanding loan amount divided by the open market property value multiplied by 100.

Table 6: Treatment of Past Due Loans (more than 90 days, net of specific provisions)

Specific Provision (SP)	Risk-weight (Percent)
SP < 20 percent of outstanding loan amount	150
SP between 20 percent and 50 percent of outstanding loan amount	100
For loans secured by residential property, where such loans are past due for more than 90 days, and their SP < 20 percent	100
SP more than 50 percent of outstanding loan amount	50
For loans secured by residential property and SP is greater than 20 percent of outstanding loan amount	50

7.34 In defining the secured portion of the past due loan, eligible collateral and guarantees shall be the same as for credit risk mitigation purposes.

Other Assets

7.35 For all other assets, the standard risk-weight shall be 100 percent, except for cash, which shall be risk-weighted at 0 percent, and cash items in the process of collection, which shall be risk-weighted at 20 percent. This 100 percent risk-weight shall apply to the following:

(i) the amount of non-significant investments in the capital of banking, financial and insurance entities, to which a credit risk standardised approach applies, not deducted from capital;

(ii) bank premises, plant and equipment and other fixed assets; and

(iii) all other assets

Higher Risk Categories

7.36 The following claims shall be risk-weighted at 150 percent or higher:

(i) Venture capital and private equity investments shall receive a 150 percent risk-weight;

(ii) Threshold amounts of significant investments in the equity and regulatory capital instruments issued by unconsolidated financial institutions (banks, insurance and other financial entities); mortgage servicing rights and deferred tax assets (DTAs), not deducted in the calculation of CET1, shall attract a risk-weight of 250 percent (see para 4.7 (e)); and

(iii) Investment in commercial entities allowed as per paragraph 3.3 above and non-payment/delivery on non-PvP transactions shall be risk-weighted at 1250 percent.

7.37 The following table summarises the risk-weights to be applied to credit exposures under the SA.

Table 7: Summary of Risk-weights under the SA for Credit Risk

	Credit Rate						
Claims on Exposure	AAA to AA-	A+ to A-	BBB+ to BBB-	BBB+ to B-	Below B-/BB	Unrated	**Risk-Weight/CCF Percentage**
Government of Botswana and Bank of Botswana							0
Cash							0
Cash items in the process of collection							20
Sovereigns and Central Banks	0	20	50	100	150	100	
BIS, IMF							0
Domestic PSEs							20
PSEs	20	50	100	100	150	100	
Domestic Banks							20
Foreign Banks	20	50	100	100	150	100	
Security Firms	20	50	100	100	150	100	
Eligible Retail							75
Other Retail							100
Mortgages[32]							35
Corporates/Insurance Companies	20	50	100	100	150	100	100
MDBs	20	50	50	100	150	50	0/100
Commercial Real Estate	100	100	100	100	100	100	100
Other Assets[33]							100
Off-balance Sheet Items							CCF as approved by central bank (Table 8)
Past Due Items							100(20); 100(20); 150(20)
Other Non-Qualifying Residential Property							75
Significant investments in equity and regulatory capital instruments issued by unconsolidated financial institutions							250
Mortgage Servicing Rights							250
DTAs							250
Investments in commercial entities							1 250
Non-payment/delivery on non-DvP and non-PvP transactions							1 250
Venture capital and private equity investment							150

[32] Owner occupied or rented by the borrower to a third party, but used for residential purposes.
[33] Excludes cash items in the process of collection

(iv) Treatment of Off-balance Sheet Items

7.38 All off-balance sheet exposures under the SA will be converted into credit exposure equivalent through the use of credit conversion factors (CCFs). The process covers all off-balance sheet items, including both market-related transactions held in the banking and trading books, and non-market related transactions.

7.39 The total risk-weighted off-balance sheet credit exposures of a bank are the sum of the risk-weighted amounts of all its off-balance sheet exposures. The computation of risk-weighted amounts of off-balance sheet exposures is as follows:

(a) The nominal principal amounts of off-balance sheet exposures is multiplied by the CCF;

(b) The resulting credit equivalent amount is multiplied by the applicable risk-weight of the counterparty to bring the exposure on-balance sheet; and

(c) If the exposure is secured by eligible collateral, guarantee or credit derivative, the applicable credit risk mitigation techniques at paragraph 8, shall apply in reducing the regulatory capital charge of the exposure.

7.40 Table 8 below maps the CCFs to applicable non-market related off-balance sheet exposures under the SA.

Table 8: Credit Conversion Factors: Off-balance Sheet Items

Maturity/Commitment	Credit Conversion Factor (CCF) Percentage
Commitments: • Original maturity up to 1 year • Original maturity over 1 year • Unconditionally cancellable commitments without notice	 20 50 0
Direct credit substitutes: • Acceptances and endorsements • Guarantees on behalf of customers • Letter of credit issued by the bank with no title to underlying shipment; • Letter of credit confirmed by the bank; and Standby letters of credit serving as financial guarantee	100
Repo style transactions: • Sales and repurchase agreements and asset sales with recourse, where the credit risk remains with the bank.	100
Lending of banks securities or posting of securities as collateral: • Repurchase/reverse repurchase agreements and securities/borrowing transactions.	100
Forward asset purchases: • Commitment to purchase at a specified future date on prearranged terms, a loan, security or other asset from another party, including written put options on specified assets with the character or a credit enhancement.	100
Placements of forward deposits: • An agreement between a bank and another party where the bank will place a deposit at an agreed rate of interest at a predetermined future date.	100
Partly paid shares and securities: • Amounts owing on the uncalled portion of partly paid shares and securities held by a bank representing commitments with certain draw down conditions by the issuer at a future date.	100
Certain transaction related contingent items: • Performance bonds, warranties and indemnities • Bid or tender bonds; • Advance payment guarantees; • Customs and excise bonds; • Standby letter of credit related to particular contracts and non-financial transactions.	50
Note issuance facilities and revolving underwriting securities: • An arrangement whereby a borrower may draw down funds up to a prescribed limit over a predetermined period by making repeated note issues to the market. If the issue is unable to be placed in the market, the unplaced amount is to be taken up or funds made available by a bank being committed as an underwriter of the facility.	50
Short-term self-liquidating trade LCs/Trade related contingent items with an original maturity below 6 months: • These are contingent liabilities arising from trade-related obligations, secured against an underlying shipment of goods for both issuing and confirming bank.	20

7.41 The credit equivalent amount of Over the Counter (OTC) derivatives (market related off-balance sheet transactions) that exposes a bank to counterparty credit risk is to be calculated under the rules set forth in Annexure 1.

7.42 A bank must closely monitor securities, commodities and foreign exchange transactions that have failed, starting the first day they fail. A capital charge for failed transactions must be calculated in accordance with Annexure 2.

7.43 With regards to unsettled securities, commodities, and foreign exchange transactions, the Bank is of the opinion that banks are exposed to counterparty credit risk from the trade date, irrespective of the booking or the accounting of the transaction. Therefore, a bank is encouraged to develop, implement and improve systems for tracking and monitoring the credit risk exposure arising from unsettled transactions, as appropriate, for producing management information that facilitates action on a timely basis. Furthermore, when such transactions are not processed through a delivery-versus-payment (DvP) or payment-versus-payment (PvP) mechanism, a bank must calculate a capital charge as set out in Annexure 2.

7.44 The capital requirements for failed trades and non-DvP transactions outlined in this section, applies in addition to (i.e., it does not replace) the requirements for the transactions themselves under this framework.

8. RECOGNITION OF CREDIT RISK MITIGANTS IN CALCULATING REGULATORY CAPITAL ADEQUACY RATIOS FOR BANKS

8.1 Banks use a number of techniques to mitigate credit risk; for example, exposures may be collateralised by first priority claims, in whole or in part, with cash or eligible securities; a loan exposure or other credit facility may be guaranteed by a third party; or a bank may buy a credit derivative to offset various forms of credit risk. A bank may also agree to net loans owed to it against deposits from the same counterparty (on-balance sheet netting or right of set-off). The explicit recognition of the expanded range of credit risk mitigation (CRM) techniques is intended to improve incentives for a bank to manage credit risk in a more effective manner.

8.2 The use of CRM techniques has the effect of either reducing or transferring credit risk. It is intended to increase prospects of recovery in the event of default or reduce the carrying amount of the exposure. However, the use of CRMs may simultaneously increase other risks (residual risks), such as legal, counterparty, operational, liquidity, basis and market risks. It is, therefore, important that a bank should put in place robust procedures and processes to control these risks, including a strategy; consideration of the underlying credit; valuation and policies specific to the CRM, as well management of concentration risk arising from a bank's use of CRM techniques. When these risks are not adequately controlled, the Bank shall impose additional capital charges or take other supervisory actions it deems fit, including add-on capital under Pillar II.

8.3 Consistent with the SA for credit risk, banks in Botswana will be permitted to take into account CRMs, as shown in Annexure 3.

Minimum Requirements for the Recognition of CRM Techniques

8.4 In order for a bank to obtain regulatory capital relief for the use of any CRM technique, the following conditions shall be met:

(a) A bank should meet the CRM disclosure requirements as detailed under Pillar III - Market Discipline;

(b) All documentation used in collateralised transactions and for documenting on-balance sheet netting, guarantees and credit derivatives, must be binding on all parties and legally enforceable in all relevant jurisdictions. A bank must have undertaken sufficient legal review to verify this and have a sound legal basis to reach this conclusion, and undertake such further reviews as necessary to ensure ongoing enforceability;

(c) The legal mechanism by which collateral is pledged or transferred must ensure that a bank has the right to liquidate or take legal possession of it, in a timely manner, in the event of default, insolvency or bankruptcy of the counterparty (and where applicable, take legal action on the custodian holding the collateral or legal possession of collateral);

(d) A bank shall take all steps necessary to fulfill those requirements under the law applicable to a bank's interest in the collateral for obtaining and maintaining an enforceable security interest, i.e., by registering it or for exercising a right to net or set-off in relation to title transfer collateral;

(e) In order for collateral to provide protection, the credit quality of the counterparty and the value of the collateral must not have a material positive correlation. For example, securities issued by the counterparty, or by any related group entity, would provide little protection and so would be ineligible;

(f) A bank must have clear and robust procedures for the timely liquidation of collateral to ensure that any legal conditions required for declaring the default of the counterparty and liquidating the collateral are observed and that the collateral can be liquidated promptly;

(g) Where the collateral is held by an independent custodian or an equally independent third party, a bank must take reasonable steps to ensure that the custodian segregates the collateral from its own assets;

(h) When cash on deposit, certificates of deposit or comparable instruments issued by a lending bank are held as collateral at a third-party bank, in a non-custodial arrangement, if they are openly pledged/assigned to a lending bank, and if the pledge/assignment is unconditional and irrevocable, the exposure amount covered by the collateral (after any necessary haircuts for currency risk), will receive the risk-weight of the third-party bank;

(i) A capital requirement will be applied to a bank on either side of the collateralised transaction: For example, both repos and reverse repos will be subject to capital requirements. Likewise, both sides of a securities lending and borrowing transaction will be subject to explicit capital charges, as will the posting of securities in connection with a derivative exposure or other borrowing and;

(j) Where a bank, acting as an agent, arranges a repo-style transaction (i.e., repurchase/reverse repurchase and securities lending/borrowing transactions) between a customer and a third party, and provides a guarantee to a customer that the third party will perform on its obligations, then the risk to a bank is the same as if the bank had entered into the transaction as a principal. In such circumstances, a bank shall be required to calculate capital requirements as if it were itself the principal.

CRM Approaches

8.5 A bank shall select one, but not both of the following approaches, and apply that approach to its entire on- and off-balance sheet banking book exposures that are subject to credit risk mitigation:

(a) **The Simple Approach**; or

(b) **The Comprehensive Approach** to credit risk mitigation.

8.6 A bank shall advise the Bank, which of the above CRM approaches it has chosen to use for its banking book exposures. With respect to trading book exposures, only the Comprehensive Approach will be allowed.

8.7 A bank shall also use the Comprehensive Approach to calculate the counterparty risk charges for over-the-counter (OTC) derivatives and repo-style transactions in the trading book.

8.8 Partial collateralisation shall be recognised in both approaches.

8.9 Mismatches in the maturity[34]of the underlying exposure and the collateral shall only be allowed under the Comprehensive Approach, as set out in paragraph 8.33.

8.10 Where there is a maturity mismatch and the CRM has an original maturity of less than one year, the CRM is not recognised for regulatory capital purposes, i.e., hedges with maturity mismatches will only be recognised when their original maturities are greater than or equal to one year. In addition, partial recognition for maturity mismatches shall be given to the CRM for regulatory capital purposes, as detailed in paragraph 8.34.

The Simple Approach

8.11 Under this approach, the risk-weight(s) applicable to the collateral or to the guarantor/protection provider, is substituted for the risk-weight of the counterparty, subject to a floor of 20 percent, except under conditions specified in Annexure 3D .

8.12 Eligible collateral for credit risk under both the Simple Approach and the Comprehensive Approach is outlined in Annexure 3.

Financial Collateral for On-balance Sheet Exposures

8.13 In addition to the general operational requirements outlined in the preceding paragraphs, for the collateral to be recognised, it must satisfy the following conditions:

(a) The eligible collateral must be pledged for at least the full life of the exposure, with no possibility of mismatches in the maturity or currency of the underlying exposure;

(b) The eligible collateral must be marked-to-market and revalued with a minimum frequency of six months or marked-to-model, where there is no use of a stock exchange;

[34] For the purpose of calculating risk-weighted assets, a maturity mismatch occurs when the residual maturity of a hedge is less than that of the underlying exposure.

(c) The portion of the claims collateralised by the market value of the recognised collateral shall attract a risk-weight of the collateral instrument, subject to a floor of 20 percent, except under the conditions specified under *"Exceptions to the Risk-weight Floor of Collateralised Exposures" (Annexure 3D).* The remainder of the exposure (uncollateralised) shall attract the risk-weight of the counterparty; and

(d) Eligible collateral is restricted to instruments that can be quickly disposed of and converted to cash (financial collateral). Physical collateral is ineligible because it cannot always fulfill this condition.

Guarantees and Credit Derivatives

8.14 Where guarantees or credit derivatives are direct claims on the protection buyer, explicitly referenced to a specific exposure, irrevocable and unconditional, and the Bank is satisfied that a bank fulfills operational requirements as outlined in Annexure 3A and 3C, the Bank may allow a bank to take account of such credit protection in calculating capital requirements. Eligible guarantors/protection providers are outlined in Annexure 3.

8.15 Where a claim on a counterparty is secured by a guarantee from an eligible guarantor[35], and where the guarantee meets all the requirements specified in Annexures 3A and 3B, the portion of the claim that is supported by the guarantee, shall be risk-weighted according to the risk-weight of the guarantor (unless the risk-weight of the original counterparty is lower). The unsecured portion of the claim shall be risk-weighted according to the risk-weight applicable to the original counterparty.

8.16 When a bank hedges a banking book credit risk exposure using a derivative booked in its trading book (i.e., using an internal hedge), the banking book position is not deemed to be hedged for capital purposes unless a bank purchases from an eligible third party protection provider, a credit derivative meeting the operational requirements for credit derivatives in Annexure 3B vis-à-vis the banking book exposure. Where such third party protection is purchased and is recognised as a hedge of a banking book exposure for regulatory capital purposes, neither the internal or external credit derivative hedge would be included in the trading book for regulatory capital purposes.

Proportional Cover

8.17 Where the credit protection value held, is less than the amount of the exposure, and the secured and unsecured portions are of equal seniority, (i.e., a bank and the credit protection provider share losses on a pro-rata basis), the protected portion of the exposure shall receive the treatment applicable to eligible guarantees/credit derivatives, with the remainder treated as unsecured.

[35] The range of eligible guarantors/protection providers is at Annexure 3.

Sovereign guarantees and counter-guarantees

8.18 Claims guaranteed by the Government of Botswana (or Bank of Botswana) denominated and funded in local currency, and claims covered by a guarantee which is counter-guaranteed by the Government of Botswana, shall receive a preferential risk-weight of 0 percent, provided they meet the following requirements (e.g., a bond issued by parastatal guaranteed by the Government of Botswana):

(a) The Government of Botswana counter-guarantee covers all credit risk elements of the claim;

(b) Both the original guarantee and the counter-guarantee meet all operational requirements for guarantees (Annexure 3 and 3A), except that the counter guarantee need not be direct and explicit to the original claim; and

(c) A bank is able to satisfy the Bank that the cover is robust and that no historical evidence suggests that the coverage of the counter-guarantee is less than that of a direct sovereign guarantee.

On-balance Sheet Netting

8.19 Where a bank;

(a) Has a well-founded legal basis for concluding that the netting or offsetting agreement is enforceable in each relevant jurisdiction, regardless of whether the counterparty is insolvent or bankrupt;

(b) is able, at any time, to determine those assets and liabilities of the same counterparty that are subject to the netting agreement;

(c) monitors and controls its roll-over risks; and

(d) monitors and controls the relevant exposures on a net basis.

8.20 As a general rule, no bank will be permitted to apply the on-balance sheet netting for retail deposits or any other deposits in the ordinary course of business, unless it meets the legal criteria and bilateral netting rules (set-off principle) outlined in Annexure 4.

8.21 A bank may calculate capital requirements on the basis of the net exposure of loans and deposits. In this case, and for the determination of regulatory capital purposes only, assets (loans) are treated as exposures and liabilities (deposits), as collateral.

Other Items Related to the Treatment of CRM Techniques

Treatment of Pools of CRMs

8.22 The treatment of pools of CRMs will be as follows:

(a) A bank will be required to subdivide the exposure into portions covered by each type of CRM technique (e.g., portion covered by collateral and portion covered by guarantee);

(b) A bank will calculate the risk-weighted assets for each portion separately; and

(c) A bank will sum up the results.

8.23 Where there is more than one (1) credit protection from a single protection provider, with different maturities, the credit protection must be subdivided into separate maturities and apply steps (ii) and (iii) above.

First-to-Default Credit Derivatives

8.24 There are cases where a bank obtains credit protection for a basket of reference names, and where the first default among the reference names triggers the credit protection and the credit event also terminates the contract. In this case, a bank may get regulatory capital relief for the asset within the basket with the lowest risk-weighted amount, but only if the notional amount is less than or equal to the notional amount of the credit derivative.

8.25 With regard to a bank providing credit protection through such an instrument, if the product has an external credit assessment from an eligible credit assessment institution, the risk-weight applied to securitisation tranches will be applied. If the product is not rated by an eligible external credit assessment institution, the risk-weights of the assets included in the basket will be aggregated up to a maximum of 1 250 percent, and multiplied by the nominal amount of the protection provided by the credit derivative, to obtain the risk-weighted asset amount.

Second-to-Default Credit Derivatives

8.26 In the case where the second default among the assets within the basket triggers the credit protection, the bank obtaining the credit protection through such a product will only be able to get capital relief if first-default protection has also been obtained or when one of the assets within the basket has already defaulted.

8.27 For a bank providing credit protection through such a product, the capital treatment is the same as above, with one exception. The exception is that, in aggregating the risk-weights, the asset with the lowest risk-weighted amount can be excluded from the calculation.

The Comprehensive Approach

Collateralised Transactions

8.28 The comprehensive approach allows offsetting of collateral against exposures, by effectively reducing the exposure amount by the value ascribed to the collateral. Under this approach, a bank is required to adjust both the exposure amount and the value of the

collateral, to account for any possible fluctuations caused by market movements, by using a system of 'haircuts' prescribed by the Bank of Botswana.

8.29 Where there is no maturity mismatch, the adjusted exposure (E*) to the counterparty, shall be calculated (to take account of the effect of the collateral in mitigating the credit risk of the exposure), using the following procedure:

(a) Adjust both the amount of the exposure and the value of the collateral using the appropriate standard supervisory haircuts (H), provided in Table 9;

(b) The resulting amounts represent the "volatility adjusted amounts" for both the exposure (EV) and collateral (CV). The EV will be higher than the original exposure and the CV will be lower than the original value of the collateral, unless both are cash, in the same currency;

(c) Where the exposure and collateral amounts are held in different currencies, an additional adjustment must be made to the volatility adjusted collateral amount to take account of possible future fluctuations in exchange rates (Hfx).

(d) For a collateralised transaction, the exposure amount after taking into account the credit risk mitigation (E*) is calculated as outlined below,

$$E^* = \max \{0, [E \times (1 + He) - C \times (1 - Hc - Hfx)]\}$$
$$EV = (1+He)*E$$
$$CV = (1-Hc - Hfx)*C$$

Therefore,

$$E^* = \max \{0, [E V - CV]\}$$

Where:

E^* = the exposure value after the credit risk mitigation
E = current value of the exposure amount

He = haircut appropriate to the exposure amount
C = current value of collateral held
Hc = Haircut appropriate to the value of collateral
Hfx = Haircut appropriate for currency mismatch between the collateral and exposure
EV = Volatility Adjusted Exposure
CV = Volatility Adjusted Collateral

(e) The exposure amount after credit risk mitigation (E*) will be multiplied by the risk-weight (RW) of the counterparty, to obtain the risk-weighted asset (RWA) amount for the collateralised transaction, including any further adjustment for foreign exchange risk, as shown below:

$$RWA = E^* \times RW$$

(f) Where the EV≤CV, E* shall be taken to be zero, and the risk-weighted assets would, therefore, be zero.

Standard Supervisory Haircuts

8.30 While the Basel II framework, in principle, permits a bank two options for calculating haircuts, namely, (a) Standard Supervisory Haircuts and (b) own-estimate haircuts, which will be derived by a bank from own internal estimates of market price volatility, all banks in Botswana will be required to use the Standard Supervisory Haircuts, as set out in Table 9 below. The Standard Supervisory Haircuts are based on a 10-business day holding period and daily mark-to-market or remargining, and are expressed as percentages.

8.31 "Own estimated haircuts", estimated individually by a bank, will be considered at a later stage. Similarly, value-at-risk modelling for repo-style transactions will not be considered at this stage.

Table 9: Standard Supervisory Haircuts

Issue Rating for Debt Securities	**Residual Maturity**	**Sovereigns[36, 37] (Percent)**	**Other Issuers[38] (Percent)**
AAA to AA-/A-1	≤1 year	0.5	1
	>1 year, ≤5 years	2	4
	>5 years	4	8
A^+ to BBB-/ A-2/A-3/P-3 and unrated bank securities per Annexure 3	≤1 year	1	2
	>1 year, ≤5 years	3	6
	>5 years	6	12
BB^+ to BB-	All	15	
Main index equities (including convertible bonds) and Gold		15	
Other equities (including convertible bonds) listed on a recognised exchange		25	
UCITS/Mutual funds		Highest haircut applicable to any security in which the fund can invest	
Cash in the same currency		0	
Cash in different currencies		8	

8.32 For transactions in which a bank lends non-eligible instruments (e.g., non-investment grade corporate debt securities), the haircut to be applied on the exposure should be the

36 Includes PSEs which are treated as sovereigns by the national supervisor.

[37] Multilateral Development Banks receiving a 0 percent risk weight will be treated as sovereigns

[38] Includes PSEs which are not treated as sovereigns by the national supervisor.

same as the one for equity traded on a recognised exchange, that is not part of a main index (25 percent).

Maturity Mismatches

8.33 Under all CRM treatments, the effective maturity of the underlying exposure and maturity of the hedge, shall both be defined conservatively. The effective maturity of the underlying exposure, should be gauged as the longest possible remaining time before the counterparty is scheduled to fulfill its obligation, taking into account any applicable grace period. For the hedge, embedded options, which may reduce the term of the hedge, should be taken into account so that the shortest possible effective maturity is used. Where a call is at the discretion of the protection seller, the maturity will always be at the first call date. If the call is at the discretion of the protection buying bank, but the terms of the arrangement at origination of the hedge contain a positive incentive for the bank to call the transaction before contractual maturity, the remaining time to the first call date will be deemed to be the effective maturity. For example, where there is a step-up in cost in conjunction with a call feature or where the effective cost of cover increases over time, even if the credit quality remains the same or increases, the effective maturity will be the remaining time to the first call.

Adjustment for Maturity Mismatches

8.34 A maturity mismatch occurs when the remaining period to maturity of the hedge is less than that of the underlying exposure. Hedges with maturity mismatches are only recognised when their original maturities are greater than or equal to one year. As a result, the maturity of hedges for exposures with original maturities of less than one year, must be matched to be recognised. In all cases, hedges with maturity mismatches will no longer be recognised when they have a residual maturity of three months or less. Where there is a maturity mismatch, the following adjustment shall be applied:

$$Pa = P \times (t - t^*)/(T - t^*)$$
$$t^* = 0.25$$

Therefore,

$$Pa = P \times (t - 0.25) / (T - 0.25)$$

where:

Pa = value of the credit protection adjusted for maturity mismatch
P = value of the credit protection (e.g., collateral amount, guarantee amount) adjusted for any haircuts
t = residual maturity of the credit protection arrangement, expressed in years
T = residual maturity of the exposure, expressed in years (up to 5 years).
t* = minimum residual maturity period (3 months)

Treatment of Guarantees and Derivatives

8.35 The treatment of guarantees and derivatives under the Comprehensive Approach is similar to the treatment under the Simple Approach above.

On-balance Sheet Netting

8.36 The bank may use the net exposure of loans and deposits as the basis for calculating its capital requirement, provided the conditions outlined in paragraphs 8.19 to 8.20 and the legal criteria and bilateral netting rules (set-off principle) outlined in Annexure 4, are met.

8.37 The haircuts will be zero, except when a currency mismatch exists.

8.38 A 10-business day holding period will apply when daily mark-to-market is conducted and all the requirements in respect of the under listed apply:

(a) Standard supervisory haircuts (see paragraph 8.30)

(b) The scaling up/down of the supervisory haircut (depending on the type of transaction and frequency of revaluation)(see paragraph 8.52), and

(c) Maturity mismatches (see paragraph 8.33).

Cross-netting

8.39 Netting across positions in the *banking* and *trading* books shall only be done if the transactions to be netted satisfy the following conditions:

(i) All transactions are marked-to-market daily.

(ii) The collateral instruments used in the transactions are recognised as eligible financial collateral in the banking book.

8.40 The formula in paragraph 8.29 (iv) shall be adapted as under, to calculate capital requirements for transactions with netting agreements:

$$E^* = \max \{0, [E \times (1 + He) - C \times (1 - Hc - Hfx)]\}$$
$$= \max \{0, [(E - C) + (E \times He) + (C \times Hc) + (C \times Hfx)]\}$$

8.41 The procedure below shall apply to take account of the effect of the master netting agreements when a bank uses standard supervisory haircuts:

$$E^* = \max \{ 0, [(\sum(E) - \sum(C)) + \sum(Es \times Hs) + (Efx \times Hfx)]\}$$

Where:

E^*	=	The exposure value after netting
E	=	The value of the exposure before risk mitigation
C	=	The value of the collateral received

E_S	=	The absolute value of the net position in a given instrument
H_S	=	Haircut appropriate to Es
E_{fx}	=	Absolute value of the net position in a currency different from the settlement currency.
H_{fx}	=	Haircut appropriate for currency mismatch

8.42 The intention here is to obtain a net exposure amount after netting of the exposures and collateral and have an add-on amount reflecting possible price changes for the securities involved in the transactions and for foreign exchange risk if any. The net long or short position of each security included in the netting agreement will be multiplied by the appropriate haircut. All other rules regarding the calculation of haircuts stated in the preceding paragraphs equivalently apply for banks using bilateral netting agreements to repo-style transactions.

Other Items Related to the Treatment of CRM Techniques

Treatment of Pools of CRMs

8.43 Under the comprehensive approach, where a bank has more than one CRM covering a single exposure (e.g. a bank has both collateral and guarantee partially covering an exposure), procedures outlined in paragraph 8.22 under the Simple Approach will be followed.

8.44 Where the collateral is a basket of assets, the haircut on the basket shall be:

$$H = \sum_i a_i H_i \qquad (i = 1, 2, 3, \ldots\ldots, n)$$

Where:

a_i *is* the weight of an asset in the basket (as measured by units of currency);
H_i is the haircut applicable to that asset; and
n is the number of assets in the basket.

First-to-Default Credit Derivatives

8.45 There are cases where a bank obtains credit protection for a basket of reference names, and where the first to default among the reference names triggers the credit protection, and the credit event also terminates the contract. In this case, a bank may recognise regulatory capital relief for the asset within the basket with the lowest risk-weighted amount, but only if the notional amount is less than or equal to the notional amount of the credit derivative.

8.46 With regard to a bank providing credit protection through such an instrument, if the product has an external credit assessment from an eligible credit assessment institution, the risk-weight applied to securitisation tranches will be applied. If the product is not rated by an eligible external credit assessment institution, the risk-weights of the assets included in the basket will be aggregated up to a maximum of 1250 percent, and multiplied by the nominal amount of the protection provided by the credit derivative, to obtain the risk-weighted asset amount.

Second-to-Default Credit Derivatives

8.47 In the case where the second default among the assets within the basket triggers the credit protection, the bank obtaining credit protection through such a product will only be able to recognise any capital relief if the first-default protection has also been obtained or when one of the assets within the basket has already defaulted

8.48 For a bank providing credit protection through such a product, the capital treatment is the same as above, with one exception. The exception is that, in aggregating the risk-weights, the asset with the lowest risk-weighted amount can be excluded from the calculation.

Adjustments to the Standard Supervisory Haircuts where Marking-to-Market or Re-margining is not on a Daily Basis

8.49 Different holding periods are appropriate for some transactions, depending on the nature and frequency of their revaluation and remargining.

8.50 The process for collateral haircuts distinguishes between:

(a) Repo-style transactions;

(b) "Other capital-market-driven transactions" (i.e., OTC derivatives transactions and margin lending);and

(c) Secured lending[39]

8.51 The minimum holding periods for each of the various products above are summarised in Table 10 below:

Table 10: Minimum Holding Periods for Various Products

Transaction Type	Minimum Holding Period	Condition
Repo-style transactions	5 business days	Daily remargining
Other capital market transactions	10 business days	Daily remargining
Secured lending	20 business days	Daily revaluation

8.52 When the remargining or revaluation is not done on a daily basis, the standard supervisory haircuts must be scaled up depending on the actual number of business days in between the remargining or revaluation days, using the square root of time formula below and the minimum holding periods given in Table 10 above:

[39] Documentation in capital-market-driven transactions and repo-style transactions contains remargining clauses, but that for secured lending transactions, does not.

$$H = H_M \sqrt{\frac{N_R + (T_M - 1)}{T_M}}$$

Where:

H	=	Adjusted haircut.
H_M	=	Haircut under the minimum conditions, (i.e., the standard supervisory haircuts).
T_M	=	Minimum holding period for the type of transaction as per Table 10
N_R	=	Actual number of business days between remargining for capital market transactions *or* revaluation for secured exposures.

Conditions for Zero Haircut

8.53 A zero haircut may be applied to repo-style transactions, where the counterparty is a core market participant[40], and the following conditions are satisfied:

(a) both the exposure and the collateral are cash or a sovereign security qualifying for a 0 percent risk-weight under the standardised approach for credit risk;

(b) both the exposure and the collateral are denominated in the same currency;

(c) either the transaction is overnight or both the exposure and the collateral are marked-to-market daily, and are subject to daily remargining;

(d) following a counterparty's failure to remargin, the time that is required between the last mark-to-market before the failure to remargin, and the liquidation of the collateral, is considered to be no more than four business days;

(e) the transaction is settled across a settlement system proven for that type of transaction;

(f) the documentation covering the agreement is standard market documentation for repo-style transactions in the securities concerned;

(g) the transaction is governed by documentation specifying that if the counterparty fails to satisfy an obligation to deliver cash or securities or to deliver margin or otherwise defaults, then the transaction is immediately terminable; and

(h) upon any default event, regardless of whether the counterparty is insolvent or bankrupt, a bank has the unfettered, legally enforceable right to immediately seize and liquidate the collateral for its benefit.

[40] Core market participants include Botswana Government, Bank of Botswana, domestic banks, domestic PSEs and security firms.

Treatment of Financial Collateral for Off-Balance Sheet Exposures

Non market-related transactions

8.54 The credit equivalent amount (CEA) of a transaction is obtained by multiplying the value of the transaction (TV) by its CCF and substitute it for the term (1 + He) × E in the expression for E*.

The CEA of a transactions shall be derived as follows:

$E_V = TV \times CCF$
$C_V = (1 - Hc - Hfx) \times C$
$E^* = (E_V - C_V)$ when $E_V > C_V$ and
$RWA = E^* \times RW_C = (E_V - C_V) \times RW_C$

Where:

Ev	=	Volatility Adjusted Exposure
Cv	=	Volatility Adjusted collateral
E*	=	The exposure value after risk mitigation
RW_C	=	The risk-weight of the counterparty.
RWA	=	Risk-weighted assets

Market-related transactions

8.55 In the case of OTC derivative exposures, the term (1+He)*E in the expression for E* above is replaced by the CEA of the OTC derivative (see Annexure 1 for OTC conversion factors).

8.56 The CEA amount of OTC derivatives is obtained by using the *current exposure* (mark-to-market) method, i.e., the sum of the replacement cost and the potential future exposure, as given below:

Risk-weighted Asset for Individual Contract

8.57 For single contracts, the *CEA* (i.e., the on-balance sheet equivalent) will be calculated using the *current exposure method*, as follows:

CEA (market-related) = RC + add-on (where RC has a positive value)

$E_V = (1 + He) \times E$

Therefore: $E_V = RC + add\text{-}on$
$= RC + (FV \times CCF)$
And $E^* = \{(RC + add\text{-}on) - C_V\}$

Where:

RC	=	The replacement cost (obtained by marking contract to market to arrive at the current value of the exposure).
Add-on	=	The amount for potential future exposure (obtained by multiplying the applicable CCF by the face value of the transaction).

Cv = The volatility adjusted collateral amount (equal to the value of the collateral multiplied by the appropriate haircut (Table 9) or zero if no eligible collateral is applied to the transaction).

RW_C = The risk-weight of the counterparty.

Therefore,

The risk-weighted asset (RWA) will be given as: $RWA = E^* \times RW_C$

Bilateral Netting (More than one contract with the same counterparties)

8.58 This section outlines methods for calculating the exposure amounts for instruments with counterparties. For capital adequacy purposes, the legal criteria and bilateral netting rules (set-off principle) outlined in Annexure 4 must be satisfied for a bank to perform bilateral netting.

8.59 The credit exposure on bilaterally netted forward transactions will be calculated as the sum of the net mark-to-market replacement cost, if positive, plus an add-on based on the notional underlying principal. The add-on for netted transactions (A_{Net}) will equal the weighted average of the gross add-on (A_{Gross}) and the gross add-on adjusted by the ratio of the net current replacement cost to gross current replacement cost (NGR).

8.60 That is, when effective bilateral netting contracts are in place, the RC will be replaced with the net replacement cost (Net RC) , if positive, and the add-on will be the add-on for the netted transactions (A_{Net}) expressed as:

$$A_{Net} = 0.4\times A_{Gross}[41] + 0.6\times NGR\times A_{Gross}$$

Where:

NGR = Net RC/Gross RC subject to legally enforceable netting agreements.

8.61 The scale of the gross add-ons to apply in this formula will be the same as those for non-netted transactions as set out in paragraphs 8.54 to 8.57 above. For the purpose of calculating potential future credit exposure to a netting counterparty for forward foreign exchange contracts and other similar contracts in which notional principal is equivalent to cash flows, notional principal is defined as the net receipts falling due on each value date in each currency. The reason for this is that offsetting contracts in the same currency maturing on the same date will have lower potential future exposure, as well as lower current exposure.

[41] A_{Gross} equals the sum of the individual add-on amounts (calculated by multiplying the notional principal amount by the appropriate add-on of all transactions subject to legally enforceable netting agreements with the same counterparty.

9. CAPITAL CHARGE FOR OPERATIONAL RISK

9.1 For purposes of this document, operational risk is defined as: "the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events". This definition includes legal risk[42], but excludes strategic and reputational risk.

9.2 A bank operating in Botswana will have a choice between the Basic Indicator Approach (BIA) and Standardised Approach (SA) for the determination of the regulatory capital charge for operational risk.

9.3 A bank shall advise the Bank on the approach it intends to adopt, prior to the implementation of the approach.

9.4 The Bank shall, however, assess as to whether the approach proposed to be adopted by a bank suits its risk profile and risk management capabilities.

9.5 A bank will not be allowed to revert to a simpler approach (BIA), once it has been approved for SA.

Basic Indicator Approach

9.6 Under the BIA, the regulatory capital charge for operational risk will be equal to 15 percent (denoted α) of the average of the previous three years bank's positive annual gross income.

9.7 The three-year average gross income would be calculated on the basis of the last three 12 monthly observations at the end of the financial year. When audited figures are not available, audited Returns may be used. This computation of the capital charge for operational risk may be expressed as follows:

$$K_{BIA} = \left[\sum (GI_{1..n} \times \alpha)\right] \Big/ n$$

Where:

K_{BIA} = The capital charge under the Basic Indicator Approach

GI = Annual gross income, where positive, over the previous three years

n = Number of the previous three years for which gross income is positive

α = 15 percent, which is set by the Basel Committee, relating the industry-wide level of required capital to the industry-wide level of the indicator.

[42] Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements.

9.8 If, for any given observation, the gross income is negative or equal to zero, this figure shall not be taken into account in the calculation of the three-year average[43]. The positive years' gross income is then divided by the total number of positive years. However, if the negative gross income distorts a bank's Pillar 1 capital charge, the Bank will consider appropriate supervisory action under Pillar 2.

9.9 When a bank makes a material acquisition, the operational risk capital calculation should be adjusted to reflect those activities. Since the gross income calculation is based on a rolling three years average, the most recent year gross income for the acquired business should be based on actual gross income amounts reported by the acquired business. Estimates may be used for the previous two years when actual amounts are not available.

9.10 When an institution makes a divestiture, the gross income calculation may be adjusted, with Bank of Botswana, to reflect this divestiture.

Qualifications

9.11 Gross income will be defined as net interest income plus net non-interest income.

9.12 Gross income will be calculated before the deductions of provisions (e.g., for unpaid interest) and operating expenses (including fees paid for outsourcing services rendered by third parties).

9.13 The following elements shall be excluded in the calculation of the average annual gross income:

(a) Realised profits/losses from the sale of securities in the banking book[44];

(b) Income from extraordinary or irregular items[45];

(c) Income derived from insurance; and

Exceptions under the BIA

9.14 A bank that does not have sufficient income data to meet the three-year requirement may, subject to approval, use its forecast net income projections for all or part of the three-year period to calculate its capital charge under the BIA.

[43] That is, if the gross income for any of the previous three years is negative or zero, the figures for that year will be **excluded from both the numerator and the denominator,** when calculating the capital charge.

[44] Realised profits/losses from securities classified as "held to maturity" and "available for sale" which constitute items of the banking book.

[45] Extraordinary items are those items that have affected a bank's profit or business during the year, but are not expected to recur regularly. Examples include the sale of a subsidiary, or payments in connection with a lawsuit. These events are not expected to occur in the normal course of banking business. As such, they are separated on the income statement and classified as either non-recurring or extraordinary items.

General Compliance

9.15 Although no specific criteria are set out for use of the BIA, a bank using this method are encouraged to comply with *the Basel Committee's Principles for Sound Practices for the Management and Supervision of Operational Risk.* This guidance requires an individual bank to have robust governance arrangements, effective risk management processes and adequate internal control mechanisms appropriate to its size, nature, scale and complexity. A bank is also required to make sufficient public disclosures to allow market participants to assess its approach to operational risk management.

9.16 A bank's definition of operational risk should encompass the full range of material operational risks that each bank faces and should capture the most significant causes for severe operational losses.

Standardised Approach

9.17 A bank permitted to use the Standardised Approach (SA) shall divide its activities into eight business lines: corporate finance, trading and sales, retail banking, commercial banking, payment and settlement, agency services, asset management and retail brokerage. The business lines are defined in detail in paragraphs 9.26 - 9. 27 below.

9.18 A bank intending to use SA for calculating the capital charge for operational risk requires prior approval of the Bank of Botswana, and shall meet the criteria outlined in paragraph 9.28 below.

9.19 A bank that opts for SA will be required to map its overall annual gross income into the eight business lines as outlined in Table 11 below. To calculate a capital charge for each business line, the gross income of each business line shall be scaled by a fixed factor (denoted beta). The table below outlines the business lines and their respective betas.

Table 11: Business Lines and Corresponding Beta Factors

Business Line	Beta Factors (Percent)
Corporate finance (β_1)	18
Trading and sales (β_2)	18
Retail banking (β_3)	12
Commercial banking (β_4)	15
Payments and settlements (β_5)	18
Agency services (β_6)	15
Asset management (β_7)	12
Retail brokerage (β_8)	12

9.20 A bank's total operational risk capital charge shall be calculated as the three year average of the simple summation of the regulatory capital charge for each business line in each year. Annex 5 outlines how the capital charge for operational risk should be calculated under SASA. The total capital charge is expressed as follows:

$$K_{TSA} = \left\{\sum_{years\ 1-3} \max[\sum(GI_{1-8} \times \beta_{1-8}), 0]\right\} \Big/ 3$$

Where:

K_{TSA} = The capital charge under the Standardised Approach

GI_{1-8} = Annual gross income in a given year, as defined above in the Basic Indicator Approach, for each of the eight business lines

β_{1-8} = A fixed percentage, set by the Basel Committee, relating the level of required capital to the level of the gross income for each of the eight business lines. The values of the betas are detailed below.

9.21 In any given year, **only 50 percent** of the negative capital charges (resulting from negative gross income) in any business line, may offset positive capital charges in other business lines. However, where the aggregate capital charge across all business lines within a given year is negative, then the input to the numerator for that year will be zero[46]. The denominator will remain three (3), representing the three years included in the calculation.

[46] As under the Basic Indicator Approach, if negative gross income distorts a bank's Pillar 1 capital charge under the Standardised Approach, appropriate supervisory action under Pillar 2 shall be taken.

9.22 When a bank makes a material acquisition, the operational risk capital calculation should be adjusted to reflect those activities. For banks using SA, the gross income from the most recent year for the acquired business must be mapped into the eight business lines. Once a bank has obtained the percentage allocation of the gross income from the acquired entity across the eight business lines for the most recent year, it may apply this allocation to the previous two years of gross income. The mapping results can be applied to the total gross income of the acquired business for the previous two years to determine the percentage assigned to the eight business lines.

9.23 When a bank makes a divestiture, the gross income calculation may be adjusted, with supervisory approval, to reflect this divestiture.

The Qualifying Criteria for the Use of the Standardised Approach

9.24 A bank using TSA should meet the criteria set out below:

(a) In order to qualify for the use of SA, a bank must satisfy the Bank that, at a minimum:

- Its board of directors and senior management, as appropriate, are actively involved in the oversight of the operational risk management framework;
- It has an operational risk management system that is conceptually sound and is implemented with integrity; and
- It has sufficient resources in the use of the approach in the major business lines, as well as the control and audit areas.

(b) A bank intending to adopt SA must ready its systems before a 12 month initial trial run of SA.

(c) A bank must develop specific policies and have documented criteria for mapping gross income for current business lines and activities into the standardised framework. The criteria must be reviewed and adjusted for new or changing business activities, as appropriate. The principles for business line mapping are set out in paragraph 9.25 below.

(d) A bank must have an adequate operational risk management system[47] with clear responsibilities assigned to an operational risk management function.[48] The

[47] The term operational risk management system does not necessarily refer to a technology application for implementing operational risk management across the institution, although this may be a part of an institution's approach to managing operational risk. Rather, the term system refers to the collective polices and processes in place for identifying, assessing, monitoring and controlling operational risk across the institution.

[48]The size and complexity of an institution may not warrant the existence of a specific organisational unit dedicated to operational risk management. Where this is the case, an institution should be able to demonstrate to the Bank how its operational risk management framework is appropriate to the size and complexity of the institution's operations. Where an independent unit does not exist, the above responsibilities should be assigned to individuals within the institution, who are independent from the releant business line.

operational risk management function is responsible for developing strategies to identify, assess, monitor and control/mitigate operational risk; for codifying bank's policies and procedures concerning operational risk management and controls; for the design and implementation of the bank's operational risk assessment methodology; and for the design and implementation of a risk-reporting system for operational risk.

(e) As part of the bank's internal operational risk assessment system, the bank must systematically track relevant operational risk data, including material losses by business line. Its operational risk assessment system must be closely integrated into the risk management processes of the bank. Its output must be an integral part of the process of monitoring and controlling the bank's operational risk profile. For instance, this information must play a prominent role in risk reporting, management reporting and risk analysis. The bank must have techniques for creating incentives to improve the management of operational risk throughout the firm.

(f) There must be regular reporting of operational risk exposures, including material operational losses, to business unit management, senior management and to the Board of Directors. A bank must have procedures for taking appropriate action according to the information within the management reports.

(g) A bank's operational risk management system must be well documented, and must have a routine in place for ensuring compliance with a documented set of internal policies, controls and procedures concerning the operational risk management system, which must include policies for the treatment of non-compliance issues.

(h) A bank's operational risk management processes and assessment system must be subject to validation and regular independent review. These reviews must include both the activities of the business units and of the operational risk management function. Where the size and complexity of the institution may not warrant the existence of a specific organisational unit dedicated to operational risk management, independent review should focus on the operational risk management processes and may be integrated with the review of the respective business activities.

(i) A bank's operational risk assessment system (including the internal validation processes) must be subject to regular review by external auditors and/or supervisors.

9.24 If a bank using SA no longer meets the qualifying criteria for this approach, such a bank may be requested to revert to the BIA for all or some of its operations.

Principles for Business Line Mapping

9.25 Under SA, all activities of a bank must be mapped into one of the eight business lines. In doing so, the gross income from all of the bank's activities will be taken into account in calculating the operational risk capital charge under SA. To facilitate the mapping of

various activities into appropriate business lines, banks must follow guidance provided below:

Business Line Mapping – Template

9.26 In the business line mapping template outlined in Table 12 below, Level 1 refers to the main eight business lines; Level 2 refers to the segregation of the main business lines into sub-groups and; activity groups relate to a further description of Level 2, indicating specific activities that can be included in a specific business line.

9.27 The procedure that is to be followed in the mapping of the business lines and their gross incomes follows a reverse order. That is, a bank should identify the activity group to which the function it is performing belongs; the activity group will be related to the Level 2 business line; the Level 2 business line in turn will be related to one of the eight business lines.

Table 12: Mapping of Business Lines

Level 1	**Level 2**	**Activity Groups**
Corporate Finance	Corporate Finance	Mergers and acquisitions, underwriting, privatisations, securitisation, research, debt (government, high yield), equity, syndications, IPO, secondary private placements
	Municipal/Government Finance	
	Merchant Banking	
	Advisory Services	
Trading and Sales	Sales	Fixed income, equity, foreign exchanges, commodities, credit, funding, own position securities, lending and repos, brokerage, debt, prime brokerage
	Market Making	
	Proprietary Positions	
	Treasury	
Retail Banking (includes small businesses as defined in foot note 25)	Retail Banking	Retail lending and deposits, banking services, trust and estates
	Private Banking	Private lending and deposits, banking services, trust and estates, investment advice
	Card Services	Merchant/commercial/corporate cards, private labels and retail
Commercial Banking	Commercial Banking	Project finance, real estate, export finance, trade finance, factoring, leasing, lending, guarantees, bills of exchange
Payment and Settlement[49]	External Clients	Payments and collections, funds transfer, clearing and settlement
Agency Services[50]	Custody	Escrow, depository receipts, securities lending (customers) corporate actions
	Corporate Agency	Issuer and paying agents
	Corporate Trust	
Asset Management	Discretionary Fund Management	Pooled, segregated, retail, institutional, closed, open, private equity
	Non-Discretionary Fund Management	Pooled, segregated, retail, institutional, closed, open
Retail Brokerage	Retail Brokerage	Execution and full service

[49] Payment and settlement losses related to a bank's own activities would be incorporated in the loss experience of the affected business line.

[50] Includes agency services to insurance companies.

Business Line Mapping – Guidance

9.28 Institutions should develop a business line mapping process consistent with the principles outlined below:

(a) All activities must be mapped into the eight level 1 business lines in a mutually exclusive and jointly exhaustive manner;

(b) Any banking or non-banking activity, which cannot be readily mapped into the business line framework, but which represents an ancillary function to an activity included in the framework, must be allocated to the business line it supports. If more than one business line is supported through the ancillary activity, an objective mapping criteria must be used.

(c) When mapping gross income, if an activity cannot be mapped into a particular business line, then the business line yielding the highest charge must be used. The same business line equally applies to any associated ancillary activity.

(d) A bank may use internal pricing methods to allocate gross income between business lines, provided that total gross income for the bank (as would be recorded under the Basic Indicator Approach), still equals the sum of gross income for the eight business lines.

(e) The mapping of activities into business lines for operational risk capital purposes must be consistent with the definitions of business lines used for regulatory capital calculations in other risk categories, i.e., credit and market risk. Any deviations from this principle must be clearly motivated and documented.

(f) The mapping process used must be clearly documented. In particular, written business line definitions must be clear and detailed enough to allow third parties to replicate the business line mapping. Documentation must, among other things, clearly motivate any exceptions or overrides and be kept on record.

(g) Processes must be in place to define the mapping of any new activities or products.

(h) Senior management is responsible for the mapping policy (which is subject to the approval by the board of directors).

(i) The mapping process of business lines must be subject to independent review, for example, by internal audit.

9.29 The mapping process should be objective, verifiable and repeatable, such that the overall operational risk capital would not change by a material amount based on misclassification of business line mapping.

9.30 When a bank undergoes internal management restructuring, the regulatory mapping would not have to be restated for prior periods if the institution can demonstrate that this type of restructuring would not result in material differences in the operational risk capital charge.

When management restructuring occurs, this assessment should be documented by the institution and be made available to the Bank upon request.

Supplementary Guidance to Mapping of Gross Incomes

9.31 A bank would be expected to follow the guidance provided below to map its gross income:

(a) Gross income for retail banking consists of net interest income on loans and advances to retail customers and SMEs treated as retail, plus fees related to traditional retail activities, net income from swaps and derivatives held to hedge the retail banking book, and income on purchased retail receivables. To calculate net interest income for retail banking, a bank takes the interest earned on its loans and advances to retail customers less the weighted average cost of funding of the loans (from whatever source ─ retail or other deposits);

(b) Similarly, gross income for commercial banking consists of the net interest income on loans and advances to corporate (plus SMEs treated as corporates), interbank and sovereign customers and income on purchased corporate receivables, plus fees related to traditional commercial banking activities including commitments, guarantees, bills of exchange, net income (e.g. from coupons and dividends) on securities held in the banking book, and profits/losses on swaps and derivatives held to hedge the commercial banking book. Again, the calculation of net interest income is based on interest earned on loans and advances to corporate, interbank and sovereign customers less the weighted average cost of funding for these loans (from whatever source);

(c) For trading and sales, gross income consists of profits/losses on instruments held for trading purposes (i.e., in the mark-to-market book), net of funding cost, plus fees from wholesale broking; and

(d) For the other five business lines, gross income consists primarily of the net fees/commissions earned in each of these businesses. Payment and settlement consists of fees to cover provision of payment/settlement facilities for wholesale counterparties. Asset management is management of assets on behalf of others.

10. THE CAPITAL CHARGE FOR MARKET RISK

10.1 This section of the Directive outlines the approach to be used by a bank to compute the capital charge for market risk in its trading and banking book. Market risk is broadly defined as the risk of losses in on- and off-balance sheet positions arising from movements in market prices and comprises:

(a) The interest rate and equity risks pertaining to financial instruments in the **trading book**; and [51]

(b) Foreign exchange risk and commodities risk in the **trading** and **banking books**.

10.2 The trading book consists of positions in financial instruments and commodities held either with trading intent or in order to hedge other elements of the trading book. Positions held with trading intent are those held intentionally for short-term resale and/or with the intent of benefiting from actual or expected short-term price movements or to lock in arbitrage profits, and may include proprietary positions, positions arising from client servicing and market making.

10.3 All other on- and off-balance sheet positions that are not defined as trading book positions should be classified as exposures in the banking book. Generally, all derivative instruments should be classified in the trading book, except for those which have hedged a banking book position. However, certain credit derivative instruments and structured investments may be classified as banking book positions, particularly long-term investments which are illiquid and/or have significant credit risk elements.

10.4 There are two broad measures of measuring market risk, being, Standardised Measurement Method (SMM) and Internal Models Method (IMM). However, banks in Botswana will be permitted to use the SMM. The SMM is based on a building block approach, where a standardised supervisory capital charge is applied separately to each risk category and aggregated to derive the market risk capital charge.

(a) Scope of the Capital Charges under the SMM

10.5 A bank shall ensure that it holds capital commensurate with the level of market risk in its trading and banking books. For the purpose of this Directive, the market risk management policy of a bank shall incorporate an internal definition and clear-cut distinction between its banking book and trading book, the latter incorporating all financial instruments held for 'trading activities'.

10.6 The market risk capital charge is divided into four components, namely; interest rate

[51] Interest rate risk arising from non-trading activities will be explicitly dealt with under Pillar II of the Basel II framework.

risk, equity risk, foreign exchange risk and commodities risk capital. Therefore, the capital charge for market risk shall be the sum of individually calculated capital charges for these four components. This capital charge includes the general market risk capital charge across all four risk components, and a specific risk capital charge for interest rate and equity positions (see Table 13). In addition, a capital charge for the price risk of options will be calculated and incorporated within the relevant risk component. Specific risk arises from the idiosyncratic characteristics associated with a particular issuer, especially the issuer's credit worthiness, whilst general market risk results from systematic market risk factors which affect general market prices.

Table 13: Treatment of Specific and General Market Risk

General Market Risk	**Interest Rate Risk**	**Equity Risk**	**Foreign Exchange Risk**	**Commodity Risk**
	Trading Book		**Trading and Banking Book**	
	√	√	√	√
Specific Risk	√	√	×	×

10.7 In addition to the capital charge for general market risk and specific risk, a bank will be required to calculate the counterparty credit risk capital charge for OTC derivatives, repo-style and other transactions in the trading book.

10.8 Guidance on prudent valuations; systems and controls; valuation methodology; price verification; valuation adjustments; trading book policy statement and treatment of counterparty credit risk in the trading book, is attached as Annexure 6.

(b) **Treatment of Counterparty Credit Risk in the Trading Book**

10.9 A bank will also be required to calculate the counterparty credit risk capital charge for OTC derivatives, repo-style and other transactions classified in the trading book. The risk-weights to be used in this calculation must be consistent with those used for calculating the capital requirements in the banking book.

10.10 The repo-style transactions, which are included in the trading book, may be used as eligible collateral and instruments that do not qualify as eligible collateral under the banking book, shall attract a haircut, at the level applicable to non-main index equities listed on a recognised exchange (currently 25 percent).

10.11 The counterparty credit risk capital charge for single name credit derivative

transactions in the trading book will be calculated using the potential future exposure add-on factors in Table 14 below.

Table 14: Potential Future Exposure Add-on Factors

	Protection Buyer (Percent)	Protection Seller (Percent)
Total Return Swap		
Investment grade reference obligation^	5	5
Non-investment grade reference obligation	10	10
Credit Default Swap		
Investment grade reference obligation	5	5*
Non-investment grade reference obligation	10	10*

^ Investment grade refers to securities with an external credit rating of BBB+ and above.

* The protection seller of a credit default swap shall only be subject to the add-on factor where it is subject to closeout upon the insolvency of the protection buyer while the underlying is still solvent. Add-on should then be capped to the amount of unpaid premiums.

There will be no difference depending on residual maturity.

10.12 Where the credit derivative is a first to default transaction, the add-on will be determined by the lowest credit quality underlying in the basket; that is, if there are any non-qualifying items in the basket, the non-qualifying reference obligation add-on should be used. For second and subsequent to default transactions, underlying assets should continue to be allocated according to the credit quality; that is, the second lowest credit quality will determine the add-on for a second to default transaction.

(c) The Standardised Measurement Method

(i) **Interest Rate Risk**

10.13 This part of the Directive describes the standard framework for measuring the risk of holding or taking positions in debt securities and other interest rate related financial instruments in the trading book. Interest rate risk is the risk that movements in interest rates will have an adverse effect on the value of on- and off-balance sheet positions. The financial instruments covered under this risk element include all fixed-rate and floating-rate debt securities and instruments that share similar characteristics as debt securities, including non-convertible preference shares. Convertible bonds, that is debt issues or preference shares that are convertible into common shares of the issuer, will be treated as debt securities, if the instruments trade like debt securities or as equities, if they trade like equities.

10.14 Interest rate sensitive instruments are normally affected by general changes in market interest rates, known as general market risk, and changes in factors related to a specific issuer, known as specific risk. Therefore, the capital charge for interest rate risk is the sum of two separately calculated charges, one for specific risk in each security, whether long or short, and another for general market risk of the portfolio, where long and short positions may be offset.

Specific Interest Rate Risk

10.15 The capital requirement for specific risk is designed to protect a bank against adverse movements in the price of a particular security, owing to factors related to the credit worthiness of the issuer. In measuring specific risk, offsetting will be restricted to matched[52] positions in the **identical issue**. Even if the issuer is the same, **no offsetting** is permitted between different issues, since differences in coupon rates, liquidity, call features, etc., mean that prices may diverge in the short run.

10.16 Table 15 below provides the applicable specific risk capital charges for interest rate related financial instruments. Issues by public sector entities and a domestic bank will attract a standard specific risk capital charge of 1.6 percent. The specific risk capital charges for holding interest rate related financial instruments, issued by a foreign bank, will be based on the external ratings of the foreign bank, while the specific risk capital charges for the holding of interest rate related financial instruments issued by foreign sovereigns, will be based on the external ratings of the foreign sovereigns.

[52] A matched position is the value of the offsetting position. It is the smaller of the absolute value of the long and short positions.

Table 15: Specific Risk Capital Charges for Interest Rate Related Financial Instruments

	Remaining Maturity		
	6 months or less	**> 6m to 24 months**	**Over 24 months**
	(Percent)		
Corporates and Securities Firms			
AAA to A-	0.25 0.25	1.00 1.00	1.60
BBB+ to BBB-	1.00 0.25	1.60 1.00	3.00 2.00
BB+ to B-	8.00		
Below B-	12.00		
Unrated	8.00		
Domestic bank	1.60		
Foreign bank ∞			
AAA to A-	0.25 1.00	1.00 1.60	1.60
BBB+ to BBB-	1.00 1.00	1.60 2.00	3.00
BB+ to B-	8.00		
Below B-	12.00		
Unrated	8.00 1.00		
Public Sector Entities (PSE)	1.60		
Government of Botswana #	0		
Foreign Sovereigns *			
AAA to AA-	0		
A+ to BBB-	0.25 1.00	1.00 1.60	1.60
BB+ to B-	8.00		
Below B-	12.00		
Unrated	8.00		

∞Including interest rate related financial instruments issued and guaranteed by a licensed bank.

Including interest rate related financial instruments issued or guaranteed by the Government of Botswana or the Bank of Botswana, as well as securities issued through special purpose vehicles established by the Bank.

* Including exposures to highly-rated Multilateral Development Banks (MDBs) that qualify for the preferential risk-weight, as described in this Directive.

Specific Risk Capital Charges for Positions Hedged by Credit Derivatives

10.17 No specific risk capital requirement will apply to both sides of a position, if the values of two legs (long and short) always move in the opposite direction, and broadly to the **same extent**. This condition is subject to:

i) The two legs consisting of completely identical instruments; or,

ii) A long cash position is hedged by a total rate of return swap (or vice versa) and there is an exact match between the reference obligation and the underlying exposure (that is the cash position).[53]

10.18 An 80 percent offset will be recognised when the value of two legs always move in the opposite direction, but not broadly to the same extent. This would be the case when a long cash position is hedged by a credit default swap or a credit linked note (or vice versa), and there is an exact match in terms of the reference obligation, the maturity of both the reference obligation and the credit derivative, and the currency of the underlying exposure. In addition, key features of the credit derivative contract (for example credit event definitions and settlement mechanisms) should not cause the price movement of the credit derivative to materially deviate from the price movements of the cash position. To the extent that the transaction transfers risk (that is taking into account the restrictive payout provisions, such as fixed payouts and materiality thresholds), an 80 percent specific risk offset will be applied to the side of the transaction with the higher capital charge, while the specific risk requirement on the other side will be zero.

The Bank will not allow any partial offsetting beyond as outlined above.

General Market Interest Rate Risk

10.19 The capital requirements for general market risk are designed to capture the risk of loss arising from changes in market interest rates. A bank may opt for either the "maturity" method or the 'duration' method. A bank with the necessary capacity may opt for the duration method, but should, however, seek the prior consent of the Bank, and apply the method on a consistent and continuous basis. Similarly, a change of the method should be approved by the Bank. Under both methods, positions are allocated across a maturity ladder template of time bands and the capital charge is then calculated as the sum of four components:

i) A 100 percent capital charge on the overall net open position (weighted) in the entire trading book;

ii) A smaller proportion of the matched positions in each time band (the 'vertical disallowance'). The vertical disallowance accounts for the basis and gap risk that arise because each time band includes different instruments of differing maturities. The vertical disallowance charge levied on a matched position is:

- 10 percent under the maturity method; and

[53] The maturity of the swap itself may be different from that of the underlying exposure.

- 5 percent if the bank uses the duration method.

iii) The larger proportion of the matched positions across different time bands to account for the correlation of risk factors across time bands (the horizontal disallowance). The horizontal disallowance is standard across both methods; and,

iv) A net charge for positions in options, where appropriate, on treatment of options (Annexure 7).

10.20 Separate maturity ladders should be constructed for each currency in which positions are significant, thus 5 percent or more of a bank's total assets, while a single maturity ladder should be used for currencies with insignificant positions. Capital charges for each currency is calculated separately and then aggregated, with no offsetting between positions of opposite signs.

The Maturity Method

10.21 Under the maturity method, the market value of long or short positions in debt securities and other sources of interest rate exposures, including derivative instruments, are mapped into the relevant time bands as specified in **Table 16**. Fixed-rate instruments shall be mapped according to the residual term to maturity and floating-rate instruments according to the residual term to the next re-pricing date. Two maturity ladders will be constructed depending on the coupon rate as follows:

i) A 13 time-band maturity ladder for securities with coupon rates of more than 3 percent; and

ii) A 15 time-band maturity ladder for zero coupon or deep discounted securities, with coupon rates of less than 3 percent.

Table 16: Maturity Method – Time Bands and Weights

Zone	Time Bands (Coupon 3 Percent or more)	Time Bands (Coupon less than Percent)	Risk-weight (Percent)
1	1 month or less > 1 and up to 3 months > 3 and up to 6 months > 6 and up to 12 months	1 month or less > 1 and up to 3 months > 3 and up to 6 months > 6 and up to 12 months	0.00 0.20 0.40 0.70
2	> 1 and up to 2 years > 2 and up to 3 years > 3 and up to 4 years	> 1.0 and up to 1.9 years > 1.9 and up to 2.8 years > 2.8 and up to 3.6 years	1.25 1.75 2.25
3	> 4 and up to 5 years > 5 and up to 7 years > 7 and up to 10 years > 10 and up to 15 years > 15 and up to 20 years > 20 years	> 3.6 and up to 4.3 years > 4.3 and up to 5.7 years > 5.7 and up to 7.3 years > 7.3 and up to 9.3 years > 9.3 and up to 10.6 years > 10.6 and up to 12 years > 12 and up to 20 years > 20 years	2.75 3.25 3.75 4.50 5.25 6.00 8.00 12.50

General Market Risk Capital Charge under the Maturity Method

10.22 The computation of the capital charge for general market interest rate risk will follow a five-stage process, after slotting the securities by their respective residual maturities and coupon rates. The following steps shall apply:

(a) Risk-weight the positions in each time band by the respective risk-weight;

(b) Add the weighted positions in each time bucket to produce an overall net long/short position, and apply a 100 percent charge to the resulting net position.

(c) Apply a vertical disallowance charge of 10 percent to the matched position within each time band.

(d) Calculate the horizontal disallowance charge on a three (3) stage process, as per Table 17 below:

- First calculate the horizontal disallowance within each individual zone. This charge will be made to a zone that has offsetting positions (long and short) and applied to the matching/smaller of the two positions. The charge is scaled as under column 3 of Table 17; and

- Calculate the horizontal disallowance between adjacent zones and apply charge as in column 4 of Table 17;

- Calculate the horizontal disallowance between zones 1 and 3 and apply a 100 percent charge.

(e) Add up the capital charges for each currency to produce the overall capital charge for general market risk.

Table 17: Horizontal Disallowances

Zones	Time Band	Within the Zone (Percent)	Between Adjacent Zones (Percent)	Between Zone 1 and 3 (Percent)
Zone 1	0 – 1 month > 1 – 3 months > 3 – 6 months > 6 – 12 months	40	40	100
Zone 2	> 1 – 2 years > 2 – 3 years > 3 – 4 years	30		
Zone 3	> 4 – 5 years > 5 – 7 years > 7 – 10 years > 10 – 15 years > 15 – 20 years > 20 years	30	40	

10.23 The general market risk capital requirement shall be calculated as shown in table 18 below:

Table 18: Calculating the General Market Interest Rate Risk

Steps	Rounds	Weighted Position	Risk-Weight (Percent)
Net position (Step i and ii)		Net short or long weighted positions	100
Vertical disallowances (Step iii)		Matched weighted positions in all maturity bands	10
Horizontal disallowances (Step iv)	Round 1	Matched weighted positions within Zone 1	40
		Matched weighted positions within Zone 2	30
		Matched weighted positions within Zone 3	30
	Round 2	Matched weighted positions between Zones 1 & 2	40
		Matched weighted positions between Zones 2 and 3	40
	Round 3	Matched weighted positions between Zones 1 and 3	100

The Duration Method

10.24 The duration method is the more accurate of the two measurement methods and may be used by a bank which has capacity, and is subject to prior regulatory approval. A bank which opts to use this method must do so consistently. The method measures the general market interest rate risk by separately calculating the price sensitivity of each position.

10.25 The procedure for calculating the capital charge for general market interest rate risk is similar as under the maturity method, except for two differences that arise in selecting the risk-weight and the percentage for vertical disallowance. The interest rate price sensitivity is determined as a product of duration of the position and the assumed change in yield (unlike under the Maturity Approach where price sensitivity is reflected by an assigned risk-weight). The vertical disallowance is set at 5 percent to recognise the improved accuracy of measurement with this method.

The positions in each currency are slotted in the respective duration-based time bands, as given in Table 19 below.

Table 19: Duration Method - Time Bands and Assumed Changes in Yield

Zone	Duration Band	Changes in Yield (Percent)
1	1 month or less > 1 - 3 months > 3 - 6 months > 6 - 12 months	1.00 1.00 1.00 1.00
2	> 1.0 - 1.9 years > 1.9 - 2.8 years > 2.8 - 3.6 years	0.90 0.80 0.75
3	> 3.6 - 4.3 years > 4.3 - 5.7 years > 5.7 - 7.3 years > 7.3 - 9.3 years > 9.3 - 10.6 years >10.6 - 12 years > 12 - 20 years > 20 years	0.75 0.70 0.65 0.60 0.60 0.60 0.60 0.60

10.26 The mechanics of this method are as follows:

i) Calculate the price sensitivity of each instrument in terms of a change in interest rates of between 0.6 and 1.0 percentage points, depending on the maturity of the instrument;

ii) Slot the resulting price sensitivity measures into a duration-based ladder of 15 time bands; obtain the net position and apply a 100 percent capital charge;

iii) Subject long and short positions in each time band to a 5 percent vertical disallowance to capture basis and gap risk;

iv) Carry forward the net positions in each time band for horizontal offsetting, subject to the disallowances set in Table 18 above; and

v) The market risk capital charge will be the aggregation of ii to iv above.

Treatment of Interest Rate Derivatives, Repo and Reverse Repo Transactions

10.27 The market risk measurement system should include all interest rate derivatives, off-balance sheet instruments, repos and reverse repos in the trading book, which would react to changes in interest rates (for example forward rate agreements (FRAs)), other forward contracts, bond futures, interest rate and cross-currency swaps, and forward foreign exchange positions).

10.28 The derivatives should be converted into positions in the relevant underlying, and subject to specific and general market risk charges. To determine the capital charge under any of the two standardised methods described above, the amounts reported should be the market value of the principal amount of the underlying or of the notional underlying. A summary of the rules dealing with interest rate derivatives is set out in Annexure 7, Table 4.

10.29 While interest rate and cross-currency swaps, FRAs, forward foreign exchange contracts and interest rate futures will not be subject to a specific risk charge, they are subjected to counterparty credit risk. Similar treatment also applies to futures on an interest rate index. In the case of contracts where the underlying is a specific debt security, or an index representing a basket of debt securities, a specific risk charge will apply according to the credit risk of the issuer.

10.30 All derivative products are subject to general market risk in the same manner as cash positions, with the exception of fully matched positions in identical instruments. The various categories of instruments should be slotted into the maturity ladder and treated according to the rules identified earlier.

Allowable Offsetting of Matched Positions

10.31 In calculating the capital charge for interest rate risk (for both specific and general market risk), a bank may exclude altogether, long and short positions (both actual and notional) in identical instruments with exactly the same issuer, coupon, currency and maturity. A matched position in a future or forward contract and its corresponding underlying, may also be fully offset, and thus excluded from the calculation. No offsetting will be allowed between positions in different currencies; the separate legs of cross currency swaps or forward foreign exchange deals are to be treated as notional positions in the relevant instruments, and included in the appropriate calculation for each currency.

10.32 In addition, opposite positions in the same category of instruments can, in certain circumstances, be regarded as matched and allowed to fully offset. However, the positions must relate to the same underlying instruments, be of the same nominal value and be denominated in the same currency.

(ii) **Equity Position Risk**

10.33 This part sets out the minimum capital requirements to cover the risk of equity positions in the trading book. Equity risk is the risk that movements in equity prices will negatively affect the value of an equity position. The capital charges for equity risk is expressed in terms of two separately calculated charges for the specific risk of holding positions in an individual equity and for the general market risk of holding positions in the market as a whole. It applies to long and short positions in all instruments that exhibit market behavior similar to equities. Equity positions must be calculated on a market-by-market basis; thus separate calculations have to be carried out for each national market in which the bank holds equity.

10.34 The instruments covered include ordinary shares, whether voting or non-voting, convertible securities that behave like equities, and commitments to buy or sell

equity securities. In addition, equity include equity derivatives, stock indices, index arbitrage and any other on/off balance sheet positions that are affected by changes in equity prices.

Specific Equity Risk

10.35 The Specific Equity Risk applies to the bank's gross equity position. The gross position should be the sum of the absolute value of all net positions in each **individual equity**. The capital charge for specific risk will be 8 percent on the gross equity position, unless the portfolio is both liquid and well-diversified[54], in which case the charge will be 4 percent.

General Market Equity Risk

10.36 This risk will be assessed as the difference between the sum of the longs and the shorts of **all equity** positions (that is the overall net position) in a recognised equity market. The general equity risk charge will be 8 percent.

10.37 Besides the general market risk, a further capital charge of 2 percent will apply to the net long or short position in an index contract comprising a diversified portfolio of equities. The capital charge reflects the execution risk associated with indices.

Offsetting

10.38 The long and short positions in the same issue may be fully offset and reported on a net basis.

Equity Derivatives

10.39 A capital charge shall be calculated for equity derivatives and off-balance sheet positions which are affected by changes in equity and equity index prices. The positions in the equity derivatives should be converted into positions in the relevant underlying stock or index, and subjected to the following requirements:

i) Futures and forward contracts relating to individual equities should, in principle, be reported at current market prices;

ii) Futures relating to stock indices should be reported as the marked-to-market value of the notional underlying equity portfolio;

iii) Equity swaps are to be treated as two notional positions;[55]

iv) Equity options and stock index options should either be "carved out" together with the associated underlying cash or forward, or be incorporated

[54] An index shall be deemed to be well diversified and liquid if it consists listed stocks covering at least 90 percent of the sectors and is listed on a recognisable exchange.

[55] For example, an equity swap in which a bank is receiving an amount based on the change in the value of a particular equity or stock index and paying a different index, will be treated as a long position in the former and a short position in the latter.

in the measure of general market risk according to the delta-plus method, see Annexure 7 on treatment of options.

The treatment of equity derivatives is summarised in Table 20 below.

Table 20: Treatment of Equity Derivatives

Instrument	Specific Risk	General Market Risk
Exchange Traded or OTC future		
- Individual equity	Yes	Yes, as underlying
Index	2 percent	Yes, as underlying
Options		
- Individual equity	Yes	Either, i) "carve-out" together with the associated hedging positions and derive the capital charge by the Simplified approach, OR,
- Index	2 percent	ii) General market risk charge according to the delta plus method (gamma and vega should receive separate capital charges)*

* Gamma - is the rate of change of the delta. (Delta is the sensitivity of option value to a small change in the price of the underlying asset).
Vega - is the sensitivity of an option value to the volatility of the underlying asset

Offsetting of Matched Equity Derivative Positions

10.40 Matched positions in each identical equity or stock index in each market may be fully offset, resulting in a single net short or long position, to which the specific and general market risk charges will apply. For example, a future contract in a given equity may be offset against an opposite cash position in the same equity. However, the interest rate risk arising from the future contract will be dealt with under interest rate risk.

(iii) **Foreign Exchange Risk**

10.41 This part sets out the minimum capital requirement to cover the risk of holding or taking positions in foreign currencies, including gold.[56] Foreign exchange risk is the risk that the value of foreign exchange positions may be adversely affected by movements in currency exchange rates. Foreign exchange risk incurs only general market risk.

10.42 A bank in Botswana will use the shorthand method, which treats all currencies equally. Under this method, the nominal amount or net present value of the net position in each foreign currency, and in gold, is converted at spot rates into the reporting currency.

10.43 The calculation of the foreign exchange capital requirement under the SMM, involves two steps. The first step is to measure the exposure in a single currency position (that is the net open position of a single currency). The second step is to measure the risks inherent in a bank's portfolio of net long and short positions in different currencies (that is the total net long and net short position in foreign currencies).

Measuring the Exposure in a Single Currency

10.44 A bank's net open position in each currency should be calculated by aggregating the following positions:

i) The net spot position (that is all assets less all liabilities, including accrued interest, denominated in the particular currency);

ii) The net forward position (that is the present value of all amounts to be received, less the present value[57] of all amounts to be paid, under forward foreign exchange transactions, including currency futures and the principal on currency swaps not included in the spot position);

iii) Guarantees and contingencies that are certain to be called and are likely to be irrecoverable;

[56] Gold is to be dealt with as a foreign exchange position rather than a commodity because its volatility is more in line with foreign currencies and banks manage it in a similar manner to foreign currencies.

[57] Forward currency and gold prices are normally valued at current spot market exchange rates. However, a bank which bases its normal management accounting on net present values, is expected to use the net present values of each position, discounted using the current interest rates and valued at current spot rates.

iv) The net future income/expenses not yet accrued, but already fully hedged; and

v) Any other item representing a profit or loss in foreign currencies.

Some of the foreign exchange positions will be reported and evaluated at market value, while some may be reported and evaluated at book value, in the case of an inactive market.

The Treatment of Structural Positions

10.45 Matched foreign currency asset and liability positions will protect a bank against loss from movements in exchange rates, but will not necessarily protect its capital. A bank will, therefore, be allowed to take short positions in the domestic currency to guard against the erosion of capital that arises from the domestic currency depreciation. This deliberate position to partially or fully hedged against the adverse effect of foreign exchange rate movements on the bank's capital, will be excluded from the calculation of net open currency positions, subject to the following conditions:

(a) The positions must be "structural", i.e. of a non-dealing nature;

(b) The positions do no more than protect a bank's capital adequacy ratio; and,

(c) The exclusion of the positions are approved by ALCO/Risk Committee, or other competent authority delegated by the Board, and must be applied consistently throughout the life of the assets.

The Treatment of Interest, Other Income and Expenses in Foreign Currency

10.46 Interest accrued (that is earned but not yet received) and accrued expenses (incurred but not paid) should be included as a position. Unearned but expected future interest and anticipated expenses may be excluded, except when the amounts are certain and a bank has taken the opportunity to hedge them. If a bank includes future income/expenses, the treatment should apply on a consistent basis, and not restricted to those expected future flows that would reduce the position.

Measuring the Foreign Exchange Risk in a Portfolio of Foreign Currency Positions and Gold

10.47 The net position of the combined trading and banking book in each foreign currency is converted at spot rates (as at date of reporting) into the reporting currency. The overall net open position is then measured by aggregating:

(a) The sum of the net short positions or the sum of the net long positions, whichever is the greater; with

(b) The net position (short or long) in gold , regardless of whether it is positive or negative.

10.48 The capital charge will be 8 percent of the overall net open position.

(iv) Commodities Risk

10.49 This part establishes a minimum capital standard to cover the price risk of taking exposure in commodities, including precious metals, excluding gold (which i s treated under foreign exchange risk)**.** A commodity is defined as a physical product that can be traded on a secondary market and can be in the form of agricultural products, minerals (including oil) and precious metals.

10.50 All commodity derivatives and off-balance sheet positions, which are affected by changes in commodity prices, should be included in this measurement framework.

10.51 Commodity risk can be measured in a standardised manner, using either the simplified approach or a maturity ladder approach, which captures interest rate risk and forward gap risk separately. These approaches are both only appropriate for a bank which, in relative terms, conducts only a limited amount of commodities business, but given the limited magnitude of commodity trading in Botswana, banks will only be restricted to the simplified approach.

10.52 The funding of commodities positions may well expose a bank to interest rate or foreign exchange risk, and the relevant positions should be included under the measure of interest rate and foreign exchange risk.

The Simplified Approach

10.53 In calculating the capital charges under both the simplified and the maturity ladder approaches, a bank will first have to express each commodity position (spot plus forward) in terms of the standard unit of measurement (barrels, kilos, grams etc.). The net position in each commodity is then converted at current spot rates into Botswana Pula. Some of the commodity positions will be reported and evaluated at market value, while some may be reported and evaluated at book value, in the case of an inactive market.

10.54 Under the simplified approach, the capital charge will then be a sum of two charges;

(a) 15 percent of the net position, long or short, in each commodity[58];

(b) 3 percent of the bank's gross commodity positions, that is, the sum of the net long and net short positions in each commodity, calculated using the current spot price. This charge addresses the basis risk, interest rate risk and forward gap risk.[59]

[58] Including all commodity derivatives and off-balance sheet positions affected by changes in commodity prices.

[59] **Basis risk** - the risk that the relationship between the prices of similar commodities alters through time; **Interest rate risk** - the risk of a change in the cost of carry for forward positions and options; **Forward gap risk** - the risk that forward prices may change for reasons other than a change in interest rates;

Offsetting

10.57 Under the standardised measures, long and short positions in each commodity may be reported on a net basis for the purposes of calculating open positions. Positions in different commodities will, however, not be offsettable in this manner.

Treatment of Commodity Derivatives

10.57 All commodity derivatives and off-balance sheet positions affected by changes in commodity prices should be included in the commodities risk measurement framework. To calculate the market risk, commodity derivatives should be converted into notional commodities positions and assigned to maturities as follows:

(a) Futures and forward contracts relating to individual commodities should be incorporated as notional amounts of barrels, kilos and so on, and assigned a maturity with reference to the expiry date;

(b) Commodity swaps, where one leg is a fixed price and the other the current market price, should be incorporated as two positions. Each position should be equal to the notional amount of the contract, with a position corresponding to each payment on the swap and slotted into the maturity ladder accordingly. The positions are long positions if a bank is paying fixed and receiving floating, and short positions if a bank is receiving fixed and paying floating; and

(c) Commodity swaps, where the legs are in different commodities, should be incorporated in the relevant maturity ladder. Offsetting is only allowed if the commodities belong to the same sub-category.

(v) **Options**

10.58 Owing to the difficulties of measuring price risk for options, two approaches will be permissible. A bank which solely **use purchased** options will be allowed to use the Simplified Approach, whilst a bank that also **writes** options, will be expected to use the Delta-Plus Approach.

a) The Simplified Approach

10.59 Under this approach, positions on options are not subjected to the Standardised Measurement Method but are rather "carved-out" and subject to separately calculated capital charges that incorporate both general market risk and specific risk. The capital risk charges generated are then added back to the capital charges for the relevant risk category, i.e., a capital charge on an option on an equity, will be added to equity risk.

b) The Delta-Plus Approach

10.60 The Delta-Plus approach uses the sensitivity parameters associated with options to measure their market risk and capital requirements. Under this method, the delta-weighted position of each option becomes part of the measurement methodology and the delta equivalent amount is subjected to applicable general market risk

charges. Nevertheless, separate capital charges will be applied to the Gamma and Vega risks of the option positions. In addition, the specific risk capital charge will be determined by multiplying the delta-equivalent of each option by the specific risk-weights under interest rate risk and equity risk.

11. PILLAR II: SUPERVISORY REVIEW PROCESS (SRP)

11.1. The Supervisory Review Process (SRP) aims to ensure that a bank has adequate capital to support its operations at all times. It also promotes the adoption of a more forward looking approach to capital management and encourages a bank to develop and employ more rigorous risk management techniques. In addition, a bank is expected to operate above the minimum capital requirements. Thus, the underlying aim of the Pillar II process is to enhance the link between a bank's risk profile, its risk management systems and capital.

11.2 The SRP is underpinned by the following four principles:

(a) A bank's own assessment of capital adequacy in relation to its risk profile, and a strategy for maintaining its capital level;

(b) A review and evaluation of a bank's internal capital adequacy assessments and strategy by the Bank, as well as the assessment of a bank's ability to monitor and ensure compliance with the regulatory capital requirements. The Bank shall, therefore, take appropriate supervisory action, if not satisfied with the result of this process;

(c) The Bank's expectation that a bank will operate above the minimum regulatory capital ratios, and the ability of the Bank to require a bank, to hold capital in excess of the minimum (calculated under Pillar 1);

(d) Supervisory intervention at an early stage to prevent capital from falling below the minimum levels required to support the risk profile of a bank, and require rapid remedial action if capital is not maintained or restored.

11.3 Thus, the SRP fosters a continuous dialogue between a bank and the supervisor, such that when deficiencies are identified, prompt and decisive action can be taken to reduce the risk or restore capital.

11.4 The SRP also introduces two critical risk management concepts, namely, the use of economic capital and enhancement of corporate governance.

11.5 Under Pillar II, the adequacy of a bank's capital will be assessed by both the bank and Bank of Botswana. This encompasses:

(i) An Internal Capital Adequacy Assessment Process (ICAAP) to be carried out by a bank, in accordance with the broad guidance provided in this section, and a separate ICAAP Reporting Template; and

(ii) A Supervisory Review and Evaluation Process (SREP) to be conducted by the Bank on a bank's ICAAP, including an assessment of the quality of the control environment within which the ICAAP is implemented. While the Bank makes use of the information from a bank's ICAAP to assess the quality of risk management, the Bank does not approve a bank's ICAAP.

11.6 This Directive describes the key elements of an ICAAP, including the determination of internal capital targets that are commensurate with a bank's risk profile and control environment.

Scope of Application

11.7 The expectations set out under this section of the Directive shall apply to all banks on a solo and consolidated basis.

11.8 A bank should submit to the Bank a board-approved ICAAP document by September 1, 2018[60]. The document should be comprehensive and reflective of a bank's size, nature of business and complexity of business activities.

11.9 A subsidiary of a foreign bank may employ the ICAAP methodology of its parent bank. However, if it chooses to do so, it will have to demonstrate to the Bank how the methodology has been adjusted to reflect the specificities of the local jurisdiction and risks to which it is exposed.

The Internal Capital Adequacy Assessment Process (ICAAP)

11.10 A bank should have an ICAAP in place for assessing its overall capital adequacy in relation to its risk profile, and a strategy for maintaining appropriate capital levels. In particular, the ICAAP aims to:

(a) Adequately identify, measure, monitor, control and mitigate all the material risks; and determine how such risks affect the bank's overall capital adequacy;

(b) Develop a strategy for maintaining adequate capital levels, consistent with a bank's risk profile, taking into account its strategic focus and business plans, as well as its operating environment; and

(c) Enforce rigorous, continuous, forward looking stress testing that identifies possible events or changes in market conditions that could adversely impact a bank's capital.

11.11 The level of sophistication of a bank's ICAAP should be proportionate to its size, nature of business and complexity of its activities, and operating environment, as well as a bank's risk appetite. The Bank also expects that the ICAAP be embedded within a bank's internal risk management framework, and not developed solely for regulatory compliance purposes. Information derived from the ICAAP should, therefore, influence decision making within a bank, and be used to determine other management processes and business applications (e.g. limit setting, product design/pricing and performance measurement).

11.12 The ICAAP reporting template broadly prescribes the fundamental features of an ICAAP.

11.13 A bank must ensure that its ICAAP is rigorous and includes the following five main features:

[60] Based on 2017 audited financial statements

(a) Board and senior management oversight;
(b) Comprehensive risk assessment;
(c) Sound capital management;
(d) Sound compensation practices (deferred);
(e) Monitoring and reporting of risk and capital; and
(f) Internal control review

Board and Senior Management Oversight

11.14 The Board of Directors and senior management of a bank are responsible for ensuring that a bank maintains an appropriate level and quality of capital for a bank's risk profile and business plan. For this purpose, the Board and senior management must understand the nature and materiality of risks inherent in a bank's activities on a continuous basis. That is, the Board and senior management should be informed, on an on-going basis, about a bank's risks, as a bank's activities evolve.

11.15 In exercising its oversight role, the Board is expected to:

(a) Approve a bank's tolerance for risks (risk appetite) and capital management framework (which should include, among others, internal capital targets); and

(b) Ensure that senior management discharges its responsibilities in the development and effective implementation of the ICAAP.

11.16 In addition to the development and effective implementation of the ICAAP, senior management is expected, among other things, to:

(a) Ensure that all elements of the ICAAP, as stipulated in this Directive, are established and functioning effectively, and that these are subject to independent review on a periodic basis, including having:

(i) systems to assess risks, risk mitigation strategies and approaches that relate capital to the level of risk; and

(ii) processes for ensuring and monitoring the adequacy of capital allocated against material risks.

(b) Ensure that a comprehensive assessment of capital adequacy is conducted at least annually (or more frequently, as required), with the view of ascertaining whether internal capital targets continue to remain appropriate;

(c) Establish policies and procedures relating to the ICAAP, and communicate these effectively throughout the organization, as appropriate, and establish a method for monitoring compliance with them; and

(d) Ensure that appropriate documentation is maintained for all aspects of the ICAAP, as described in this Directive.

11.17 The Board and senior management oversight should be consistent with international best practices on corporate governance.

Comprehensive Risk Assessment

11.18 A bank's ICAAP should identify all material risks faced by a bank, and measure those risks that can be reliably quantified. The ICAAP should, therefore, address all material risks faced by a bank, as they relate to the adequacy of capital, including: risk types included in the calculation of minimum capital requirements (credit risk, market risk and operational risk); all risks that are not fully captured under Pillar 1 (e.g., concentration risk); those factors not taken into account by the Pillar 1 process (e.g., interest rate risk in the banking book, liquidity risk, IT risk, business and strategic risk); and factors external to a bank (e.g., business cycle effects). The techniques used in assessing material risks should be commensurate with the scope and complexity of a bank's operations.

11.19 A bank should have methodologies in place to assess the following risks, and any additional risks identified during the ICAAP:

Credit Risk

11.20 A bank should have the ability to assess credit risk at the portfolio level, as well as at the individual exposure or counterparty level. A bank must assess all exposures regardless of whether they are rated or unrated, and determine whether the risk weights applied to such exposures, under the Standardised Approach to Credit Risk, are appropriate for their inherent risk. In those instances, where a bank determines that the inherent risk of such an exposure, particularly if it is unrated, is significantly higher than that implied by the risk weight to which it is assigned, a bank must consider the higher degree of credit risk in the evaluation of its overall capital adequacy. At a minimum, the credit review assessment of capital adequacy should cover: risk rating systems, portfolio analysis/aggregation, credit derivatives, large exposures and risk concentrations.

11.21 Internal risk ratings are an important tool in monitoring credit risk. A bank's internal risk ratings must be adequate to support the identification and measurement of risk from all credit exposures, and should be integrated into a bank's overall analysis of credit risk and capital adequacy. Therefore, a bank will be required to have a well-documented internal credit rating model approved by the Board, and subject to external validation.

Credit Concentration Risk

11.22 Credit concentration risk is one of the specific types of credit risk. It is one of the risks considered, but not explicitly captured under the Pillar I, which the SRP tries to address. A bank's framework for managing credit concentration risk should be clearly documented, and should include credit concentration risk relevant to a bank, and how these concentrations and their corresponding limits are calculated. Limits should be defined in line with the existing Guidelines on Large Exposures, and a bank must ensure that it complies with these guidelines. A bank must also be able to demonstrate the extent to which it considers these concentrations in its internal assessment of capital adequacy under Pillar II.

11.23 A bank's assessment of concentration in counterparties must also include counterparty credit risk exposures emanating from trading in less liquid markets, and determine the effect that these might have on a bank's capital adequacy.

11.24 A bank must conduct periodic stress tests of its major credit risk concentrations and review the results of those tests to identify and respond to potential changes in market conditions that could adversely impact a bank's performance.

Residual Risk

11.25 Residual risk emanates from the use of credit risk mitigation techniques. This type of risk does not arise from a deterioration in a counterparty's creditworthiness, but could occur as a result of the partial performance or failure of credit risk mitigation techniques e.g., ineffective documentation (documentation risk), a delay, refusal or inability to timely realise payment from a guarantor (legal and liquidity risks), etc. A bank should identify all the material risks associated with its use of credit risk mitigation techniques and incorporate such risks into its ICAAP.

Market Risk

11.26 A bank must have methodologies that enable it to assess and actively manage all material market risks, whenever they arise, at position, desk, business line and bank-wide level. The assessment of the internal capital adequacy for market risk, at a minimum, should be based on both Value at Risk (VaR) modeling and stress testing. A bank's VaR model should be adequate 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. The VaR model estimates should be sensitive to changes in the risk profile of a bank's trading book.

11.27 A bank must demonstrate, in its ICAAP, that it has enough capital to not only meet the minimum capital requirements, but also to withstand a range of severe, but plausible market shocks, such as illiquidity of instruments, concentrated positions, one-way markets, non-linear/deep out-of-the money positions, events and jumps to default and the potential for significant shifts in correlations. Exercises that incorporate extreme events and shocks should also be tailored to capture key portfolio vulnerabilities to the relevant market developments.

Operational Risk

11.28 A bank should be able to assess the potential risks resulting from inadequate or failed internal processes, people, and systems, as well as from events external to a bank. This assessment should include the effects of extreme events and shocks relating to operational risk. Events could include a sudden increase in failed processes across business units, or a significant incidence of failed internal controls. In addition, gross income, used under the Basic Indicator and Standardised Approaches for operational risk, is only a proxy for the scale of operational risk exposure of a bank, and can in some cases (e.g., for banks with low margins or profitability), underestimate the need for capital for operational risk. In such cases, a bank has to provide additional capital.

Interest Rate Risk in the Banking Book (IRRBB)

11.29 A bank should identify the risks associated with interest rates changes affecting its on- and off-balance sheet exposures in the banking book, from both a short-term and long-term perspective. This might include the impact of changes due to parallel shocks, yield curve twists, yield curve inversions, changes in the relationships of rates (basis risk) and other relevant scenarios. A bank should be able to support its assumptions about the behavioral characteristics of its non-maturity deposits and other assets and liabilities, especially those exposures characterised by embedded optionality. Given the uncertainty in such assumptions, stress testing and scenario analysis should be used in the analysis of interest rate risk. While there could be several approaches to measure of IRRBB, a bank should, however, be free to adopt any approach or methodology for computing/quantifying the IRRBB, provided the technique is based on objective, verifiable and transparent methodology and criteria.

Liquidity and Funding Risks

11.30 A bank should understand the risks resulting from its inability to meet its obligations as they fall due, because of difficulty in liquidating assets (market liquidity risk) or in obtaining adequate funding (funding liquidity risk). This assessment should include an analysis of the sources and uses of funds, an understanding of the funding markets in which a bank operates, and an assessment of the efficacy of a contingency funding plan for events that could arise.

11.31 This part of the Directive should be used along with the Guideline on Liquidity Risk Management.

Other Material Risks

11.32 With regards to other risks, the Bank only provides indications of possible risk subtypes without systematically classifying these risks. As a result, a bank is responsible for classifying its specific risks under this category. In this regard, a bank is required to identify and assess any other risks it is materially exposed to, and the impact they may have on its overall capital adequacy. In this assessment, a bank should at least consider the following potential forms of other risks:

(a) *Business/Strategic Risk:* This could occur as a result of adverse business policy decisions, changes in the economic environment, deficient or insufficient implementation of decisions, or failure to adapt to changes in the business environment. A bank should assess the impact of its business plans on its capital over the time horizon which it uses in its business plan. It should also assess the impact on its capital of diversifying its activities and the risk it runs by failing to manage new businesses effectively.

(b) *Reputational Risk:* This could arise from an adverse perception of the image of a bank on the part of customers, counterparties, investors/lenders, employees, regulators, etc., with regard to competence, integrity and reliability.

(c) *Insurance Risk:* A bank using third party insurance to mitigate risk should ensure that the cover is adequate and actually covers the risks being considered. A bank must also consider the impact of payment delays after a claim, and how

this will affect its cash flow. In addition, a bank must establish if payment on any excess on the policy could have an impact on it.

(d) *Cross-Border Lending:* A bank that engages in cross-border lending is subject to increased risk including country risk, settlement risk, concentration risk, foreign currency risk, as well as regulatory, legal, compliance and operational risks, all of which should be reflected in the ICAAP.

(e) *Any Other Risk Identified:* A bank must identify any other risks specific to its operations and operating environment, and assess their impact on its capital under its ICAAP.

11.33 The risk factors discussed above (paragraphs 11.17 – 11.30) should not be considered an exhaustive list of those affecting any given bank. All relevant factors that present a material source of risk to capital, should be incorporated in a well-developed and documented ICAAP. Furthermore, a bank should be mindful of the effects to its capital adequacy, of concentrations that may arise within each risk type.

11.34 For each material risk identified, a bank should ensure that the risk assessments are supported by:

(a) Consistent and robust risk assessment approach;

(b) Quality data used for risk measurement; and

(c) Sound techniques and methodologies that are commensurate with a bank's size, nature of business and complexity of activities. A bank should additionally consider specific limitations that may exist on the use of particular techniques, when implemented under certain market conditions.

Quantitative and Qualitative Approaches in the ICAAP

11.35 All assessments of risks should incorporate both quantitative and qualitative elements. Generally, a quantitative approach should form the foundation of a bank's risk measurement framework. Risks that can be reliably measured should be quantified based on credible data and methodologies. However, a bank should be aware that when measuring risks, measurement errors always exists, and in many cases, the error is difficult to quantify. Where there is increased uncertainty related to modeling and business complexity, a bank must provide a larger capital cushion.

11.36 A bank should also consider the use of qualitative approaches that incorporate management experience and judgment, to supplement quantitative assessments of risks. Qualitative approaches are particularly important for risk types where common or widely accepted risk measurement techniques are absent, or where risk measurement may be difficult to relate to capital (e.g., liquidity risk). A bank should, however, be cognisant of the fact that qualitative approaches have their own inherent biases and assumptions that affect the credibility of risk assessment. Accordingly, a bank should recognise those biases and assumptions embedded in and the limitations of the qualitative approaches.

11.37 The confidence that a bank places in the results of its ICAAP should depend on the quality and robustness of the associated risk assessments. A bank's ICAAP should, therefore, reflect an appropriate level of conservatism to account for uncertainty in risk identification and quantification (e.g. errors in risk estimations and measurements), as well as possible weaknesses in risk mitigation or control.

Sound Capital Management

11.38 Based on the material risks identified, a bank should assess its overall capital adequacy, and develop a strategy for maintaining capital levels consistent with its risk profile and business plans. This should be reflected in a bank's capital planning process and the setting of internal capital targets.

11.39 A bank must ensure that well-defined processes are in place to assess its capital adequacy in relation to its risk profile. For risks that are not easily quantifiable or related to capital, focus should be directed at ensuring the effectiveness of their management and mitigation. Adequate systems and processes for managing these risks should be put in place and implemented effectively, with consideration for providing appropriate capital for any residual risks that cannot be reduced to satisfactory levels.

11.40 The capital planning process must be dynamic and forward-looking in relation to a bank's risk profile. A bank should, therefore, ensure that capital levels remain above the minimum regulatory capital requirements, as well as the capital required to support its overall risk profile (as implied by the ICAAP), over a capital planning horizon of at most three years. The size of the additional capital should take into account current and anticipated changes in a bank's risk profile and business plan and/or strategy.

11.41 A bank should also be cognisant of the stage of the business cycle in which it is operating, given the potential changes in the external environment. Therefore, rigorous, forward-looking stress testing should form an integral part of a bank's ICAAP.

11.42 The results of the stress tests should be considered when evaluating the appropriateness of a bank's capital plans and internal capital targets, with remedial actions identified to address any potential deficiencies in capital. These may include a review of earnings retention policies, in order to gradually build up additional capital, or an infusion of additional capital by shareholders, or any other remedial actions, which can be realistically carried out in a period of stress. This recognises the fact that accommodating additional capital needs may require time, and can be costly or difficult, especially at times when market conditions are unfavourable.

11.43 In assessing its capital adequacy, a bank should also evaluate the quality and capacity of its capital to absorb losses. The Bank expects a bank to clearly state the definition of capital used in any aspect of its ICAAP. Since components of capital have varying capacities to absorb losses, a bank should demonstrate how capital, as defined in its ICAAP, is able to absorb losses, both on a going concern and gone concern basis, particularly when internal definitions are broader than that employed for regulatory capital purposes. This should include an explanation of such differences, and analyses and reasons to support the use of any capital instrument not recognised for regulatory purposes. To facilitate supervisory reviews by the Bank, a bank should disclose internal capital targets expressed in the form of regulatory capital ratios, which include total

capital (regulatory capital base), Tier-1 (core capital) and common equity (core Tier-1) ratios.

11.44 The Bank expects that the planning and assessment of capital be formally conducted by senior management, at least annually. This review should include an analysis of how the internal capital adequacy measures (e.g., economic capital), if any, compare with regulatory capital, as well as whether existing additional capital held and internal capital targets continue to be appropriate. More frequent reviews should be undertaken if there are material changes in a bank's business strategy, scale of activities or when changes in the business environment suggest that current internal capital targets are no longer appropriate. The results of the reviews by senior management should be reported to the Board.

Monitoring and Reporting of Risk and Capital

11.45 A bank should institutionalise a robust system for the continuous monitoring and reporting of risk exposures, and for assessing how its changing risk profile affects its capital. The system should incorporate internal triggers to serve as early warning signals of deviations from internal capital targets and breaches of regulatory capital requirements. Formal procedures for reporting to the Board and the Bank, should be in place and strictly observed to ensure that capital restoration strategies are activated and implemented immediately.

11.46 A bank should notify the Bank in instances when capital levels have fallen, or are expected to fall, below internal capital targets. In such instances, a bank should explain the causes of the situation, and remedial actions to be taken. It is not the Bank's intention to penalise breaches, but the consistent failure to meet internal capital targets would signal deficiencies in capital management strategies or its implementation thereof, that in turn may affect a bank's supervisory risk assessment.

11.47 The Board and senior management should receive information of a bank's risk profile and capital needs in a manner appropriate to facilitate the informed conduct of their responsibilities in:

(i) Evaluating the level and trends of material risks and their effect on capital levels;

(ii) Evaluating the sensitivities and reasonableness of key assumptions used in the process of assessing material risks and capital;

(iii) Determining that a bank holds sufficient capital or has other mitigants in place against the various risks, and is in compliance with established (internal or regulatory) capital management policies; and

(i) Assessing and planning for a bank's future capital requirements and making adjustments to its strategic plans, as appropriate.

Internal Control Review

11.48 Effective control of the ICAAP includes independent reviews of risk management processes relating to the ICAAP to ensure their integrity, objectivity, and consistent application. This review should cover, at least an assessment of:

(a) The appropriateness of a bank's ICAAP in relation to the size, nature of business and complexity of its activities;

(b) Capability and competency of key staff members involved in the ICAAP;

(c) The quality and completeness of data inputs into the ICAAP;

(d) Identification of large exposures and risk concentrations;

(e) The reasonableness and validity of methodologies, assumptions and scenarios;

(f) The robustness of a bank's ICAAP-related risk monitoring and reporting systems (e.g. the content and timeliness of ICAAP-related management reports); as well as

(g) The performance and appropriateness of the use of third-party vendors and products, services and information, to the extent that they are employed within the ICAAP.

11.49 Reviews should be performed by independent and qualified functions that are not directly involved in the development or oversight of the ICAAP, and where necessary may include internal auditors and/or external auditors. Reviews should be carried out at regular intervals with regular reporting of the results to the board and senior management of the bank. A bank shall promptly address any deficiencies identified.

Reporting Requirements to the Bank

11.50 Based on the outcome of the ICAAP, as submitted to and approved by the Board, the ICAAP Report, in the format specified in the ICAAP Reporting Template, shall be submitted to the Bank once a year, three months after the financial year end, and should reach the Bank not later than three months after the expiration of its financial year.

Corrective/Remedial Measures

11.51 If a bank fails to comply with this Directive, the Bank may pursue any remedial measures as provided under the Act, or any other measures the Bank may deem appropriate, in the interest of prudent banking practice.

The Supervisory Review and Evaluation Process (SREP)

11.52 As part of the Bank's Risk-Based Supervisory Framework, a bank's ICAAP will be reviewed and evaluated against the expectations set out in the preceding paragraphs. This review will also consider the comprehensiveness of the ICAAP and the quality of risk management, to form a view on the appropriateness of a bank's internal capital targets, and its capacity to meet those targets. Based on these reviews, the Bank may require a bank to, among other things, take action to improve its capital and risk management processes, if it is not satisfied with a bank's ICAAP.

11.53 The engagement between the Bank and a supervised bank, will focus on how the assessment of the risks was undertaken; overall risk-bearing capacity; internal governance and the ICAAP and also, supervisory judgment and actions.

11.54 While the Board and senior management of a bank maintains the primary responsibility for a bank's capital adequacy, the Bank reserves the power to intervene at an early stage to prevent a bank's capital from falling below the level that the Bank deems adequate to support the bank's risk profile, and will require rapid remedial action if capital is not maintained or restored. This may include altering a bank's risk profile through business or operational restrictions or directing a bank to raise additional capital.

12. PILLAR III: MARKET DISCIPLINE

12.1 The primary purpose of Pillar III is to supplement the minimum capital requirements (Pillar I) and the SRP (Pillar II) by introducing a set of disclosure requirements, which will allow market participants to influence the level of capital, risk assessment processes, capital adequacy and remuneration practices of a bank.

12.2 Improved transparency, underpinned by high quality and timely market disclosures, will enhance market discipline, efficiency and confidence. The key objective is, therefore, to provide a market driven incentive for a bank to conduct business in a safe and sound manner. A bank is, therefore, responsible, beyond the disclosure requirements set out in this Directive, for conveying adequate information regarding its actual risk profile and how these risks relate to capital.

12.3 The enhanced disclosures will also contribute to the Bank's supervisory monitoring efforts, while strengthening incentives for a bank to implement robust risk management systems to identify, measure, monitor and control risks.

12.4 In general, disclosures should be consistent with the scale, complexity and sophistication of a bank's approaches to risk management and capital adequacy assessments. The disclosures include qualitative and quantitative disclosures with respect to credit risk, market risk, operational risk and interest rate risk in the banking book.

12.5 In situations where the disclosure requirements under this Directive are made under the accounting requirements (International Accounting Standards/International Financial Reporting Standards) or made to satisfy the requirements of the Botswana Stock Exchange, a bank may rely on them to fulfill the applicable Pillar III requirements.

12.6 Generally, the Bank does not require the disclosures under this Directive to be audited by external auditors. The Bank, however, reserves the right to require an independent audit by an external audit or, at a bank's expense, if it doubts the accuracy and completeness of any disclosures. In this regard, a bank should ensure an appropriate verification of the disclosed information.

12.7 In deciding on the nature, type of information, format and frequency of disclosure, a bank should comply with the supervisory principles below:

(a) Medium and Location of Disclosures

12.8 A bank should publish the disclosure templates on a publicly accessible bank's internet website as well as published financial statements. All disclosure templates must be in the format prescribed in this Directive.

(b) Materiality of the Disclosures

12.9 In line with the International Financial Reporting Standards, a bank will adopt the "user test" in determining if, in relation to a particular circumstance, a user would consider any item to be material. This means that a bank should decide which disclosures are relevant for it, based on the materiality concept. An item would be considered to be

material if its omission or misstatement could change or influence the assessment or decision of a user relying on that information for the purpose of making informed and/or economic decisions.

(c) **Frequency of Disclosure**

12.10 The disclosures set out in this Directive shall be carried out on an annual basis, except for regulatory capital disclosures which must be disclosed on a quarterly basis. This notwithstanding, any material change of information on risk exposures or other items prone to rapid change, must be reported in the interim.

(d) **Disclosure of Propriety and Confidential Information**

12.11 A bank is required to strike an appropriate balance between the need for meaningful disclosure, and the protection of proprietary and confidential information. Where a bank perceives that disclosure of proprietary and confidential information might prejudice its position, a bank may not disclose such information. However, it shall disclose the fact that some information was not disclosed, and the reasons for not non-disclosure.

(e) **Disclosure of Comparative Information**

12.12 Comparative information regarding quantitative disclosures for the preceding financial year, must be reported, except for the first time adoption, where there are no corresponding disclosures in the previous reporting periods. Where there has been a material restatement of prior period figures, the nature of and the reason for the restatement must also be highlighted and form part of the disclosure.

12.13 A bank must also make available on its website or on publicly available regulatory reports, an archive of at least 5 years, of all templates relating to prior reporting periods.

(f) **The Disclosure Requirements**

(a) The Disclosure Policy

12.14 A bank should have a written disclosure policy, approved by the Board of Directors that addresses its approach for determining the content (including the appropriateness), materiality, frequency of public disclosures and internal controls over the disclosure process. These internal controls must include a process for verifying and reviewing the accuracy of the disclosures. Such verification should ensure that a bank's disclosures are consistent with the manner in which a bank assesses and manages its risks.

(b) Scope of Application

12.16 The disclosure requirements under this Directive shall apply to all banks on a solo and consolidated basis.

(c) Effective Date of Implementation of the Disclosures

12.17 The effective implementation date of the Disclosure Requirements is **January 1, 2016**, coinciding with the full implementation of Basel II in Botswana.

(d) The Disclosure Templates

12.18 A bank shall, at a minimum, disclose the information as set out in the Disclosure Templates below. In order to ensure comparability of these templates amongst different jurisdictions, a bank should not add, delete or change the definition of any row in the templates and to report a value of zero for the line items that are not applicable, such as capital buffers, that are not yet implemented in Botswana. The only, exception relates to the expansion of rows as under Table 26, for reconciliation purposes. The disclosure templates cover the following main areas:

(i) Regulatory Capital Requirements

12.19 Tables 22 and 24 are designed to capture the capital positions of a bank in terms of capital structure and capital adequacy, respectively, whereas Table 23 gives explanations of each row in Table 22. In addition, Tables 28 and 29 provides the main features of the regulatory capital instruments and explanation of each feature, respectively.

12.20 A bank should further disclose a full reconciliation of all regulatory capital elements under Table 21, back to the balance sheet in the audited financial statements, through the following steps:

Step 1:Disclose the reported balance sheet under the regulatory scope of consolidation (refer to Table 25). Disclose how the balance sheet in the published financial statements changes when the regulatory scope of consolidation is applied. If identical, a bank should state that there is no difference between the regulatory consolidation and accounting consolidation, and move to step 2 below. In addition, a bank is required to disclose the list of the legal entities that are included within the accounting scope of consolidation, but excluded from the regulatory scope of consolidation and vice versa. If some entities are included in both the regulatory scope of consolidation and accounting scope of consolidation, but the method of consolidation differs between these two scopes, a bank is required to list these legal entities separately, and explain the differences in the consolidation methods.

Step 2: Many of the elements used in the calculation of regulatory capital cannot be readily identified from the face of the balance sheet. Therefore, a bank should expand the lines of the balance sheet under the regulatory scope of consolidation to display all the components that are used in the composition of capital disclosure template (Table 26), and assign a reference number to the components.

Step 3: Map each of the components that are disclosed in step 2 above to the composition of capital disclosure template (Table 27)

(ii) Risk Management Processes

12.21 Consistent with the International Financial Reporting Standards, a bank must disclose both the quantitative and qualitative aspects of each separate risk area (e.g; credit risk, market risk, operational risk, interest rate risk in the banking book and equity risk). In describing its risk management objectives and policies, a bank must include:

- Strategies and processes for managing those risks;
- The structure and organisation of the relevant risk management function, including the title or position of Board and senior management official that oversees risk management;
- The scope and nature of risk reporting and measurement systems;
- Policies for hedging and mitigating risks, strategies and processes for monitoring the continuing effectiveness of hedges and mitigants; and
- A general description of the internal capital adequacy assessment process, as specified under Pillar II, including a description of the methodologies used.

12.22 Furthermore, a bank shall disclose additional information for the different risks, as described under Tables 30 - 36.

(iii) Remuneration

12.23 Additional Pillar III disclosure requirements on remuneration cover the main components of sound compensation practices. As a result, a bank is required to disclose qualitative and quantitative information about its remuneration practices, and policies as per Tables 38 and 38 (a) covering the following:

- The governance/committee structures;
- The design or operation of the remuneration and structure, frequency of review;
- The independence of remuneration for risk/compliance staff;
- The risk adjustment methodologies;
- The link between remuneration and performance;
- The long-term performance measures (deferral, clawback); and
- The types of remuneration (cash/equity, fixed/variable).

DISCLOSURE TEMPLATES

Table 21

Scope of application

Qualitative Disclosures	(a)	The name of a bank in the group to which this Framework applies.
	(b)	An outline of the difference in the basis of consolidation for accounting and regulatory purposes, within the group (a) that are fully consolidated. (b) that are pro-rata consolidated; (c) that are given a deduction treatment, and (d) equity accounted.
	(c)	Any restrictions, or other major impediments, on the transfer of funds or regulatory capital within the group.
Quantitative Disclosures	(d)	The aggregate amount of capital deficiencies in all subsidiaries, that are not included in the consolidation for regulatory purposes (i.e., that are deducted) and the name (s) of such subsidiaries.
	(e)	The aggregate amounts (e.g., current book value) of a bank's total interests insurance entities, which are risk-weighted, rather than deducted from capital, as well as their names, their country of incorporation or residence, the proportion of ownership interest and, if different, the proportion of voting power in these entities.

Table 22

Basel III Common Equity Tier I Disclosure Template

Common Equity Tier I capital: instruments and reserves		
1	Directly issued qualifying common share (and equivalent for non-joint stock companies) capital plus related stock surplus.	
2	Retained earnings	
3	Accumulated other comprehensive income (and other reserves)	
4	*Directly issued capital subject to phase out from CET1 CAPITAL (only applicable to non-joint stock companies)*	
5	Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1 CAPITAL)	
6	**Common Equity Tier I capital before regulatory adjustments**	
Common Equity Tier I capital: regulatory adjustments		
7	Prudential valuation adjustments	
8	Goodwill (net of related tax liability)	
9	Other intangibles other than mortgage-servicing rights (net of related tax liability)	
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability)	
11	Cash-flow hedge reserve	
12	Shortfall of provisions to expected losses	
13	Securitisation gain on sale (as set out in paragraph 562 of Basel II framework)	
14	Gains and losses due to changes in own credit risk on fair valued liabilities	
15	Defined-benefit pension fund net assets	
16	Investments in own shares (if not already netted off paid-in capital on reported balance sheet)	
17	Reciprocal cross-holdings in common equity	
18	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued share capital (amount above 10% threshold)	
19	Significant investments in the common stock of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions (amount above 10% threshold)	
20	Mortgage servicing rights (amount above 10% threshold)	
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability)	
22	Amount exceeding the 15% threshold	
23	of which: significant investments in the common stock of financials	
24	of which: mortgage servicing rights	
25	of which: deferred tax assets arising from temporary differences	
26	National specific regulatory adjustments	
27	Regulatory adjustments applied to Common Equity Tier I due to insufficient Additional Tier I and Tier II to cover deductions	

28	**Total regulatory adjustments to Common equity Tier I**	
29	**Common Equity Tier I capital (CET1 CAPITAL)**	
	Additional Tier I capital: instruments	
30	Directly issued qualifying Additional Tier I instruments plus related stock surplus	
31	of which: classified as equity under applicable accounting standards	
32	of which: classified as liabilities under applicable accounting standards	
33	*Directly issued capital instruments subject to phase out from Additional Tier I*	
34	Additional Tier I instruments (and CET1 CAPITAL instruments not included in row 5) issued by subsidiaries and held by third parties (amount allowed in group AT1)	
35	*of which: instruments issued by subsidiaries subject to phase out*	
36	**Additional Tier I capital before regulatory adjustments**	
	Additional Tier I capital: regulatory adjustments	
37	Investments in own Additional Tier I instruments	
38	Reciprocal cross-holdings in Additional Tier I instruments	
39	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued common share capital of the entity (amount above 10% threshold)	
40	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions)	
41	National specific regulatory adjustments	
42	Regulatory adjustments applied to Additional Tier I due to insufficient Tier II to cover deductions	
43	**Total regulatory adjustments to Additional Tier I capital**	
44	**Additional Tier I capital (AT1)**	
45	**Tier I capital (T1 = CET1 CAPITAL + AT1)**	
	Tier II capital: instruments and provisions	
46	Directly issued qualifying Tier II instruments plus related stock surplus	
47	*Directly issued capital instruments subject to phase out from Tier II*	
48	Tier II instruments (and CET1 CAPITAL and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group Tier II)	
49	*of which: instruments issued by subsidiaries subject to phase out*	
50	Provisions	
51	**Tier II capital before regulatory adjustments**	
	Tier II capital: regulatory adjustments	
52	Investments in own Tier II instruments	
53	Reciprocal cross-holdings in Tier II instruments	
54	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions, where the bank does not own more than 10% of the issued common share capital of the entity (amount above the 10% threshold).	
55	Significant investments in the capital banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions).	

56	National specific regulatory adjustments	
57	**Total regulatory adjustments to Tier II capital**	
58	**Tier II capital (T2)**	
59	**Total capital (TC = T1 + T2)**	
60	**Total risk-weighted assets**	
	Capital ratios and buffers	
61	Common Equity Tier I (as a percentage of risk weighted assets)	
62	*Tier I (as a percentage of risk-weighted assets)*	
63	*Total capital (as a percentage of risk weighted assets)*	
64	*Institution specific buffer requirement (minimum CET1 CAPITAL requirement plus capital conservation buffer plus countercyclical buffer requirements plus G-SIB buffer requirement, expressed as a percentage of risk weighted assets)*	
65	*of which: capital conservation buffer requirement*	
66	*of which: bank specific countercyclical buffer requirement*	
67	*of which: G-SIB buffer requirement*	
68		
	Common Equity Tier I available to meet buffers (as a percentage of risk weighted assets)	
	National Common Equity Tier I minimum ratio (if different from Basel III minimum)	
70	*National Tier I minimum ratio (if different from Basel III minimum)*	
71	*National total capital minimum ratio (if different from Basel III minimum)*	
	Amounts below the thresholds for deduction (before risk-weighting)	
72	*Non-significant investments in the capital of other financials*	
73	*Significant investments in the common stock of financials*	
74	*Mortgage servicing rights (net of related tax liability)*	
75	*Deferred tax assets arising from temporary differences (net of related tax liability)*	
	Applicable caps on the inclusion of provisions in Tier II	
76	*Provisions eligible for inclusion in Tier II in respect of exposures subject to standardised approach (prior to application of cap)*	
77	*Cap on inclusion of provisions in Tier II under standardised approach*	
78	*Provisions eligible for inclusion in Tier II in respect of exposures subject to internal ratings-based approach (prior to application of cap)*	
79	*Cap for inclusion of provisions in Tier II under internal ratings-based approach*	
	Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2015 and 1 Jan 2020)	
80	*Current cap on CET1 CAPITAL instruments subject to phase out arrangements*	
81	*Amount excluded from CET1 CAPITAL due to cap (excess over cap after redemptions and maturities)*	
82	*Current cap on AT1 instruments subject to phase out arrangements*	
83	*Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)*	
84	*Current cap on T2 instruments subject to phase out arrangements*	
85	*Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)*	

Table 23

Explanation of each row of the common disclosure Row number	**Explanation**
1	Instruments issued by the parent company of the reporting group that meet all of the CET1 CAPITAL entry criteria set out in the Directive. This should be equal to the sum of common stock (and related surplus only) and other instruments for non-joint stock companies, both of which must meet the common stock criteria. This should be net of treasury stock and other investments in own shares to the extent that these are already derecognised on the balance sheet under the relevant accounting standards. Other paid-in capital elements must be excluded. All minority interest must be excluded.
2	Retained earnings, prior to all regulatory adjustments. In accordance with the Directive, this row should include interim profit and loss that has met any audit, verification or review procedures that the Bank has put in place. Dividends are to be removed in accordance with the applicable accounting standards, i.e. they should be removed from this row when they are removed from the balance sheet of the bank.
3	Accumulated other comprehensive income and other disclosed reserves, prior to all regulatory adjustments.
4	Directly issued capital instruments subject to phase-out from CET1 CAPITAL in accordance with the requirements of the Directive. This is only applicable to non-joint stock companies. Banks structured as joint-stock companies must report zero in this row.
5	Common share capital issued by subsidiaries and held by third parties. Only the amount that is eligible for inclusion in group CET1 CAPITAL should be reported here, as determined by the application of the Directive.
6	Sum of rows 1 to 5.
7	Prudential valuation adjustments according to the Directive.
8	Goodwill net of related tax liability, as set out in the Directive.
9	Other intangibles other than mortgage-servicing rights (net of related tax liability), as set out in the Directive.
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability), as set out in the Directive.

11	The element of the cash-flow hedge reserve described in the Directive.
12	Shortfall of provisions to expected losses as described in the Directive.
13	Securitisation gain on sale (as set out in paragraph 562 of Basel II framework)
14	Gains and losses due to changes in own credit risk on fair valued liabilities, as described in the Directive.
15	Defined-benefit pension fund net assets, the amount to be deducted as set out in the Directive.
16	Investments in own shares (if not already netted off paid-in capital on reported balance sheet), as set out in the Directive.
17	Reciprocal cross-holdings in common equity, as set out in the Directive.
18	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation where the bank does not own more than 10% of the issued share capital (amount above 10% threshold), amount to be deducted from CET1 CAPITAL in accordance with the Directive.
19	Significant investments in the common stock of banking, financial and insurance entities that are outside the scope of regulatory consolidation (amount above 10% threshold), amount to be deducted from CET1 CAPITAL in accordance with the Directive.
20	Mortgage servicing rights (amount above 10% threshold), amount to be deducted from CET1 CAPITAL in accordance with the Directive.
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability), amount to be deducted from CET1 CAPITAL in accordance with the Directive.
22	Total amount by which the 3 threshold items exceed the 15% threshold, excluding amounts reported in rows 19 to 21, calculated in accordance with the Directive.
23	The amount reported in row 22 that relates to significant investments in the common stock of financials
24	The amount reported in row 22 that relates to mortgage servicing rights.
25	The amount reported in row 22 that relates to deferred tax assets arising from temporary differences.

26	Any specific regulatory adjustments that the Bank required to be applied to CET1 CAPITAL in addition to the Basel III minimum set of adjustments. Guidance should be sought from the Bank.
27	Regulatory adjustments applied to Common Equity Tier I due to insufficient Additional Tier I to cover deductions. If the amount reported in row 43 exceeds the amount reported in row 36 the excess is to be reported here.
28	Total regulatory adjustments to Common equity Tier I, to be calculated as the sum of rows 7 to 22 plus rows 26 and 27.
29	Common Equity Tier I capital (CET1 CAPITAL), to be calculated as row 6 minus row 28.
30	Instruments issued by the parent company of the reporting group that meet all of the AT1 entry criteria set out in the Directive and any related stock surplus as set out in the Directive. All instruments issued by subsidiaries of the consolidated group should be excluded from this row. This row may include Additional Tier I capital issued by an SPV of the parent company only if it meets the requirements set out in the Directive.
31	The amount in row 30 classified as equity under applicable accounting standards.
32	The amount in row 30 classified as liabilities under applicable accounting standards.
33	Directly issued capital instruments subject to phase out from Additional Tier I in accordance with the requirements of the Directive.
34	Additional Tier I instruments (and CET CAPITAL instruments not included in row 5) issued by subsidiaries and held by third parties, the amount allowed in group AT1 in accordance with the Directive.
35	The amount reported in row 34 that relates to instruments subject to phase out from AT1 in accordance with the Directive.
36	The sum of rows 30, 33 and 34.
37	Investments in own Additional Tier I instruments, amount to be deducted from AT1 in accordance with the Directive.
38	Reciprocal cross-holdings in Additional Tier I instruments, amount to be deducted from AT1 in accordance with the Directive.

39	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation where the bank does not own more than 10% of the issued common share capital of the entity (net of eligible short positions), amount to be deducted from AT1 in accordance with the Directive.
40	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions), amount to be deducted from AT1 in accordance with the Directive..
41	Any specific regulatory adjustments that the Bank require to be applied to AT1 in addition to the Basel III minimum set of adjustments. Guidance should be sought from the Bank.
42	Regulatory adjustments applied to Additional Tier I due to insufficient Tier II to cover deductions. If the amount reported in row 57 exceeds the amount reported in row 51 the excess is to be reported here.
43	The sum of rows 37 to 42.
44	Additional Tier I capital, to be calculated as row 36 minus row 43.
45	Tier I capital, to be calculated as row 29 plus row 44.
46	Instruments issued by the parent company of the reporting group that meet all of the Tier II entry criteria set out in the Directive and any related stock surplus as set out in the Directive. All instruments issued of subsidiaries of the consolidated group should be excluded from this row. This row may include Tier II capital issued by an SPV of the parent company only if it meets the requirements set out in the Directive.
47	Directly issued capital instruments subject to phase out from Tier II in accordance with the Directive.
48	Tier II instruments (and CET1 CAPITAL and AT1 instruments not included in rows 5 or 32) issued by subsidiaries and held by third parties (amount allowed in group Tier II), in accordance with the Directive.
49	The amount reported in row 48 that relates to instruments subject to phase out from T2 in accordance with the Directive.
50	Provisions included in Tier II, calculated in accordance with the Directive.
51	The sum of rows 46 to 48 and row 50.

52	Investments in own Tier II instruments, amount to be deducted from Tier II in accordance with the Directive.
53	Reciprocal cross-holdings in Tier II instruments, amount to be deducted from Tier II in accordance with the Directive.
54	Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation where the bank does not own more than 10% of the issued common share capital of the entity (net of eligible short positions), amount to be deducted from Tier II in accordance with the Directive.
55	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation (net of eligible short positions), amount to be deducted from Tier II in accordance with the Directive.
56	Any specific regulatory adjustments that the bank requires to be applied to Tier II in addition to the Basel III minimum set of adjustments. Guidance should be sought from the Bank.
57	The sum of rows 52 to 56.
58	Tier II capital, to be calculated as row 51 minus row 57.
59	Total capital, to be calculated as row 45 plus row 58.
60	Total risk weighted assets of the reporting group.
61	Common Equity Tier I (as a percentage of risk weighted assets), to be calculated as row 29 divided by row 60 (expressed as a percentage).
62	Tier I ratio (as a percentage of risk weighted assets), to be calculated as row 45 divided by row 60 (expressed as a percentage).
63	Total capital ratio (as a percentage of risk weighted assets), to be calculated as row 59 divided by row 60 (expressed as a percentage).
64	Institution specific buffer requirement (minimum CET1 CAPITAL requirement plus capital conservation buffer plus countercyclical buffer requirements plus G-SIB buffer requirement, expressed as a percentage of risk weighted assets). To be calculated as 4.5% plus 2.5% plus the bank specific countercyclical buffer requirement calculated in accordance with paragraphs 142 to 145 of Basel III plus the bank G-SIB requirement (where applicable) as set out in *Global systemically important banks: assessment methodology and the additional loss absorbency requirement: Rules text (November 2011)*. This row will show the CET1 CAPITAL ratio below which the bank will become subject to constraints on distributions.

65	The amount in row 64 (expressed as a percentage of risk weighed assets) that relates to the capital conservation buffer), ie banks will report 2.5% here.
66	The amount in row 64 (expressed as a percentage of risk weighed assets) that relates to the bank specific countercyclical buffer requirement.
67	The amount in row 64 (expressed as a percentage of risk weighed assets) that relates to the bank's G-SIB requirement.
68	Common Equity Tier I available to meet buffers (as a percentage of risk weighted assets). To be calculated as the CET1 CAPITAL ratio of the bank, less any common equity used to meet the bank's Tier I and Total capital requirements.
69	Common Equity Tier I minimum ratio as per the Directive.
70	Tier I minimum ratio as per the Directive.
71	Total capital minimum ratio as per the Directive.
72	Non-significant investments in the capital of other financials, the total amount of such holdings that are not reported in row 18, row 39 and row 54.
73	Significant investments in the common stock of financials, the total amount of such holdings that are not reported in row 19 and row 23.
74	Mortgage servicing rights, the total amount of such holdings that are not reported in row 20 and row 24.
75	Deferred tax assets arising from temporary differences, the total amount of such holdings that are not reported in row 21 and row 25.
76	Provisions eligible for inclusion in Tier II in respect of exposures subject to standardised approach, calculated in accordance with the Directive, prior to the application of the cap.
77	Cap on inclusion of provisions in Tier II under standardised approach, calculated in accordance with the Directive of Basel III.
78	Provisions eligible for inclusion in Tier II in respect of exposures subject to internal ratings-based approach, calculated in accordance paragraph 61 of Basel III, prior to the application of the cap.

79	Cap for inclusion of provisions in Tier II under internal ratings-based approach, calculated in accordance paragraph 61 of Basel III.
80	Current cap on CET1 CAPITAL instruments subject to phase out arrangements as per the Directive.
81	Amount excluded from CET1 CAPITAL due to cap (excess over cap after redemptions and maturities).
82	Current cap on AT1 instruments subject to phase out arrangements in accordance with the Directive.
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities) as per the Directive.
84	Current cap on T2 instruments subject to phase out arrangements, as per the Directive.
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities), as per the Directive.

Table 24

Capital Adequacy

Qualitative Disclosures	(a)	A summary discussion of a bank's approach to assessing the adequacy of its capital to support current and future activities.
Quantitative Disclosures	(b)	Capital requirements for credit risk: • Portfolios subject to the standardised approach, disclosed separately for each portfolio;
	(d)	Capital requirements for market risk • Standardised Measurement Approach; • Internal models approach – Trading book.
	(e)	Capital requirements for operational risk • Basic indicator approach; • Standardised approach;
	(f)	Total and Tier I capital ratio;

Table 25

	Balance sheet as in published financial statements	**Under regulatory scope of consolidation**
	As at period end	**As at period end**
Assets		
Cash and balances at central banks		
Items in the course of collection from other banks		
Trading portfolio assets		
Financial assets designated at fair value		
Derivative financial instruments		
Loans and advances to banks		
Loans and advances to customers		
Reverse repurchase agreements and other similar secured lending		
Available for sale financial investments		
Current and deferred tax assets		
Prepayments, accrued income and other assets		
Investments in associates and joint ventures		
Goodwill and intangible assets		
Property, plant and equipment		
Total assets		
Liabilities		
Deposits from banks		
Items in the course of collection due to other banks		
Customer accounts		
Repurchase agreements and other similar secured borrowing		
Trading portfolio liabilities		
Financial liabilities designated at fair value		
Derivative financial instruments		
Debt securities in issue		
Accruals, deferred income and other liabilities		
Current and deferred tax liabilities		
Subordinated liabilities		
Provisions		
Retirement benefit liabilities		
Total liabilities		
Shareholders' Equity		
Paid-in share capital		
Retained earnings		
Accumulated other comprehensive income		
Total shareholders' equity		

Table 26

Expanded Regulatory Balance Sheet

	Balance sheet as in published financial statements	**Under regulatory scope of consolidation**	**Reference**
	As at period end	**As at period end**	
Assets			
Cash and balances at central banks			
Items in the course of collection from other banks			
Trading portfolio assets			
Financial assets designated at fair value			
Derivative financial instruments			
Loans and advances to banks			
Loans and advances to customers			
Reverse repurchase agreements and other similar secured lending			
Available for sale financial investments			
Current and deferred tax assets			
Prepayments, accrued income and other assets			
Investments in associates and joint ventures			
Goodwill and intangible assets			
of which goodwill			a
of which other intangibles (excluding MSRs)			b
of which MSRs			c
Property, plant and equipment			
Total assets			
Liabilities			
Deposits from banks			
Items in the course of collection due to other banks			
Customer accounts			
Repurchase agreements and other similar secured borrowing			
Trading portfolio liabilities			
Financial liabilities designated at fair value			
Derivative financial instruments			
Debt securities in issue			
Accruals, deferred income and other liabilities			

Current and deferred tax liabilities			
Of which DTLs related to goodwill			d
Of which DTLs related to intangible assets (excluding MSRs)			e
Of which DTLs related to MSRs			f
Subordinated liabilities			
Provisions			
Retirement benefit liabilities			
Total liabilities			
Shareholders' Equity			
Paid-in share capital			
of which amount eligible for CET1 CAPITAL			h
of which amount eligible for AT1			i
Retained earnings			
Accumulated other comprehensive income			
Total shareholders' equity			

Table 27
Extract of Basel III common disclosure template (with added column)

Common Equity Tier I capital: instruments and reserves			
		Component of regulatory capital reported by bank	Source based on Reference numbers/letters of the balance sheet under the regulatory scope of consolidation from step 2.
1	Directly issued qualifying common share (and equivalent for non-joint stock companies) capital plus related stock surplus.		h
2	Retained earnings		
3	Accumulated other comprehensive income (and other reserves)		
4	*Directly issued capital subject to phase out from CET1 CAPITAL (only applicable to non- joint stock companies)*		
5	Common share capital issued by subsidiaries and held by third parties (amount) allowed in group CET1 CAPITAL)		
6	**Common Equity Tier I capital before**		
7	Prudential valuation adjustments		
8	Goodwill (net of related tax liability)		a-d

Table 28

Main features template

1	Issuer	
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	
3	Governing law(s) of the instrument	
	Regulatory treatment	
4	Transitional Basel III rules	
5	Post-transitional Basel III rules	
6	Eligible at solo/group/group and solo	
7	Instrument type (types to be specified by each jurisdiction)	
8	Amount recognised in regulatory capital (Currency in mil, as of most recent reporting date)	
9	Par value of instrument	
10	Accounting classification	
11	Original date of issuance	
12	Perpetual or dated	
13	Original maturity date	
14	Issuer call subject to prior supervisory approval	
15	Optional call date, contingent call dates and redemption amount	
16	Subsequent call dates, if applicable	
	Coupons / dividends	
17	Fixed or floating dividend/coupon	
18	Coupon rate and any related index	
19	Existence of a dividend stopper	
20	Fully discretionary, partially discretionary or mandatory	
21	Existence of step up or other incentive to redeem	
22	Noncumulative or cumulative	
23	Convertible or non-convertible	
24	If convertible, conversion trigger (s)	
25	If convertible, fully or partially	
26	If convertible, conversion rate	
27	If convertible, mandatory or optional conversion	
28	If convertible, specify instrument type convertible into	
29	If convertible, specify issuer of instrument it converts into	
30	Write-down feature	
31	If write-down, write-down trigger(s)	
32	If write-down, full or partial	

33	If write-down, permanent or temporary	
34	If temporary write-down, description of write-up mechanism	
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	
36	Non-compliant transitioned features	
37	If yes, specify non-compliant features	

Table 29

Further explanation of items in main features disclosure template

1	Identifies issuer legal entity. *Free text*
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement) *Free text*
3	Specifies the governing law(s) of the instrument *Free text*
4	Specifies the regulatory capital treatment during the Basel III transitional Basel III phase (ie the component of capital that the instrument is being phased-out from). *Select from menu: [Common Equity Tier I] [Additional Tier I] [Tier II]*
5	Specifies regulatory capital treatment under Basel III rules not taking into account transitional treatment. *Select from menu: [Common Equity Tier I] [Additional Tier I] [Tier II] [Ineligible]*
6	Specifies the level(s) within the group at which the instrument is included in capital. *Select from menu: [Solo] [Group] [Solo and Group]*
7	Specifies instrument type, varying by jurisdiction. Helps provide more granular understanding of features, particularly during transition. *Select from menu: menu options to be provided to banks by each jurisdiction*
8	Specifies amount recognised in regulatory capital. *Free text*
9	Par value of instrument *Free text*
10	Specifies accounting classification. Helps to assess loss absorbency. *Select from menu: [Shareholders' equity] [Liability – amortised cost] [Liability – fair value option] [Non-controlling interest in consolidated subsidiary]*
11	Specifies date of issuance. *Free text*
12	Specifies whether dated or perpetual. *Select from menu: [Perpetual] [Dated]*
13	For dated instrument, specifies original maturity date (day, month and year). For perpetual instrument put "no maturity". *Free text*
14	Specifies whether there is an issuer call option. Helps to assess permanence. *Select from menu: [Yes] [No]*
15	For instrument with issuer call option, specifies first date of call if the instrument has a call option on a specific date (day, month and year) and, in addition, specifies if the instrument has a tax and/or regulatory event call. Also specifies the redemption price. Helps to assess permanence. *Free text*

16	Specifies the existence and frequency of subsequent call dates, if applicable. Helps to assess permanence. *Free text*
17	Specifies whether the coupon/dividend is fixed over the life of the instrument, floating over the life of the instrument, currently fixed but will move to a floating rate in the future, currently floating but will move to a fixed rate in the future. *Select from menu: [Fixed], [Floating] [Fixed to floating], [Floating to fixed]*
18	Specifies the coupon rate of the instrument and any related index that the coupon/dividend rate references. *Free text*
19	Specifies whether the non-payment of a coupon or dividend on the instrument prohibits the payment of dividends on common shares (ie whether there is a dividend stopper). *Select from menu: [yes], [no]*
20	Specifies whether the issuer has full discretion, partial discretion or no discretion over whether a coupon/dividend is paid. If the bank has full discretion to cancel coupon/dividend payments under all circumstances it must select "fully discretionary" (including when there is a dividend stopper that does not have the effect of preventing the bank from cancelling payments on the instrument). If there are conditions that must be met before payment can be cancelled (eg capital below a certain threshold), the bank must select "partially discretionary". If the bank is unable to cancel the payment outside of insolvency the bank must select "mandatory". *Select from menu: [Fully discretionary] [Partially discretionary] [Mandatory]*
21	Specifies whether there is a step-up or other incentive to redeem. *Select from menu: [Yes] [No]*
22	Specifies whether dividends / coupons are cumulative or noncumulative. *Select from menu: [Noncumulative] [Cumulative]*
23	Specifies whether instrument is convertible or not. Helps to assess loss absorbency. *Select from menu: [Convertible] [Nonconvertible]*
24	Specifies the conditions under which the instrument will convert, including point of non-viability. Where one or more authorities have the ability to trigger conversion, the authorities should be listed. For each of the authorities it should be stated whether it is the terms of the contract of the instrument that provide the legal basis for the authority to trigger.
25	conversion (a contractual approach) or whether the legal basis is provided by statutory means (a statutory approach). *Free text*
26	For conversion trigger separately, specifies whether the instrument will: (i) always convert fully; (ii) may convert fully or partially; or (iii) will always convert partially *Free text referencing one of the options above*
27	Specifies rate of conversion into the more loss absorbent instrument. Helps to assess the degree of loss absorbency. *Free text*
28	For convertible instruments, specifies whether conversion is mandatory or optional. Helps to assess loss absorbency. *Select from menu: [Mandatory] [Optional] [NA]*

29	For convertible instruments, specifies instrument type convertible into. Helps to assess loss absorbency. *Select from menu: [Common Equity Tier I] [Additional Tier I] [Tier II] [Other]*
30	If convertible, specify issuer of instrument into which it converts. *Free text*
31	Specifies whether there is a write down feature. Helps to assess loss absorbency. *Select from menu: [Yes] [No]*
32	Specifies the trigger at which write-down occurs, including point of non-viability. Where one or more authorities have the ability to trigger write-down, the authorities should be listed. For each of the authorities it should be stated whether it is the terms of the contract of the instrument that provide the legal basis for the authority to trigger write-down (a contractual approach) or whether the legal basis is provided by statutory means (a statutory approach). *Free text*
33	For each write-down trigger separately, specifies whether the instrument will: (i) always be written down fully: (ii) may be written down partially; or (iii) will always be written down partially. Helps assess the level of loss absorbency at write-down. *Free text referencing one of the options above*
34	For write down instrument, specifies whether write down is permanent or temporary. Helps to assess loss absorbency. *Select from menu: [Permanent] [Temporary] [NA]*
35	For instrument that has a temporary write-down, description of write-up mechanism. *Free text*
36	Specifies instrument to which it is most immediately subordinate. Helps to assess loss absorbency on gone-concern basis. Where applicable, banks should specify the column numbers of the instruments in the completed main features template to which the instrument is most immediately subordinate. *Free text*
37	Specifies whether there are non-compliant features. *Select from menu: [Yes] [No]*
38	If there are non-compliant features, asks bank/institution to specify which ones. Helps to assess instrument loss absorbency. *Free text*

Table 30

Credit risk: general disclosures for all banks

Qualitative Disclosures	(a)	The general qualitative disclosure requirement. Definitions of past due and impaired (for accounting purposes); • Description of approaches followed for specific and general allowances and statistical methods;
Quantitative Disclosures	(b)	Total gross credit risk exposures, plus average gross exposure over the period broken down by major types of credit exposure.
	(c)	Geographic distribution of exposures, broken down in significant areas by major types of credit exposure.
	(d)	Industry or counter-party type distribution of exposures, broken down by major types of credit exposure.
	(e)	Residual contractual maturity breakdown of the whole portfolio, broken down by major types of credit exposure.
	(f)	By major industry or counterparty type: • Amount of impaired loans and if available, past due loans provided; separately; • Specific and general allowances; and • Charges for specific allowances and charge-offs during the period.
	(g)	Amount of impaired loans and, if available, past due loans provided separately broken down by significant geographic areas including, if practical, the amounts of specific and general allowances related to each geographical area.
	(h)	Reconciliation of changes in the allowances for loan impairment.
	(i)	For each portfolio, the amount of exposures subject to the standardised approach.

Table 31

Credit risk: disclosures for portfolio subject to the standardised approach

Qualitative Disclosures	(a)	For portfolios under the standardised approach: • Names of ECAIs and ECAs used, plus reasons for any changes; • Types of exposure for which each agency is used; • A description of the process used to transfer public issue ratings onto comparable assets in the banking book; and • The alignment of the alphanumerical scale of each agency used with the risk buckets.
Quantitative Disclosures	(b)	• For exposure amounts after risk mitigation subject to the standardised approach, amount of a bank's outstandings (related and unrated) in each risk bucket as well as those that are deducted.

Table 32

Credit risk mitigation: disclosures for standardised approach

Qualitative Disclosures	(a)	The general qualitative disclosure requirement with respect to credit risk mitigation including: • Policies and processes for, and an indication of the extent to which the bank makes use of, on-and off-balance sheet netting; • Policies and processes for collateral valuation and management; • A description of the main types of collateral taken by the bank; • The main types of guarantor/credit derivative counterparty and their creditworthiness; and • Information about (market or credit) risk concentrations within the mitigation taken.
Quantitative Disclosures	(b)	For each separately disclosed credit risk portfolio under the standardised approach, the total exposure (after, where applicable, on-or off-balance sheet netting) that is covered by : • guarantees and credit derivatives; and • eligible collateral after application of standardised supervisory haircuts.

Table 33

General disclosure for exposures related to counterparty credit risk

Qualitative Disclosures	(a)	The general qualitative disclosure requirement with respect to derivatives and CCR, including; • Discussion of methodology used to assign economic capital and credit limits for counterparty credit exposures; • Discussion of policies for securing collateral and establishing credit reserves; • Discussion of policies with respect to wrong-way risk exposures; • Discussion of the impact of the amount of collateral the bank would have to provide given a credit rating downgrade.
Quantitative Disclosures	(b)	Gross positive fair value of contracts, netting benefits, netted current credit exposure, collateral held (including type, e.g cash, government securities, etc), and net derivatives credit exposure. The notional value of credit derivative hedges, and the distribution of current credit exposure by types of credit exposure.
	(c)	Credit derivatives transactions that create exposures to CCR (notional value), segregated between the use for institution's own credit portfolio, as well as in its intermediation activities, including the distribution of the credit derivatives products used, broken down further by protection bought and sold within each product group.

Table 34

Market risk: disclosures for banks using the standardised approach

Qualitative Disclosures	(a)	The general qualitative disclosure requirement for market risk including the portfolios covered by the standardised approach.
Quantitative Disclosures	(b)	The capital requirements for: • interest rate risk; • equity position risk; • foreign exchange risk; and • commodity risk.

Table 35

Operational risk

Qualitative Disclosures	(a)	In addition to the general qualitative disclosure requirement, the approach for operational risk capital assessment for which the bank chose.
Quantitative Disclosures	(b)	Description of either the BIA or SA used by the bank, including a discussion of relevant internal and external factors considered in the bank's measurement approach.

Table 36

Equities: disclosures for banking book positions

Qualitative Disclosures	(a)	The general qualitative disclosure requirement with respect to equity risk, including: • differentiation between holdings on which capital gains are expected and those taken under other objectives including for relationship and strategic reasons; and • discussion of important policies covering the valuation and accounting of equity holdings in the banking book. This includes the accounting techniques and valuation methodologies used, including key assumptions and practices affecting valuation as well as significant changes in these practices.
Quantitative Disclosures	(b)	• Value disclosed in the balance sheet of investments, as well as the fair value of those investments, for quoted securities, a comparison to publicly quoted share values where the share price is materially different from fair value.
	(c)	The types and nature of investments, including the amount that can be classified as; • Publicly traded; and • Privately held.
	(d)	The cumulative realised gains (losses) arising from sales and liquidations in the retaining period.
	(e)	• Total unrealised gains (losses) • Total latent revaluation gains (losses) • Any amounts of the above included in Tier I and/or Tier II capital.
	(f)	Capital requirements broken down by appropriate equity groupings, consistent with the bank's methodology, as well as the aggregate amounts and the type of equity investments subject to any supervisory transition or grandfathering provisions regarding regulatory capital requirements.

Table 37

Interest rate risk the banking book (IRRBB)

Qualitative Disclosures	(a)	The general qualitative requirement, including the nature of IRRBB and key assumptions, including assumptions regarding loan prepayments and behaviour of non-maturity deposits, and frequency of IRRBB measurements.
Quantitative Disclosures	(b)	The increase (decline) in earnings or economic value (or relevant measure used by management) for upward and downward rate shocks according to management's method for measuring IRRBB, broken down by currency (as relevant).

Table 38

Remuneration

Qualitative disclosures	(a)	Information relating to the bodies that oversee remuneration. Disclosures should include: • Name, composition and mandate of the main body overseeing remuneration. • External consultants whose advice has been sought, the body by which they were commissioned, and in what areas of the remuneration process. • A description of the scope of the bank's remuneration policy (eg by regions, business lines), including the extent to which it is applicable to foreign subsidiaries and branches. • A description of the types of employees considered as material risk takers and as senior managers, including the number of employees in each group.
	(b)	Information relating to the design and structure of remuneration processes. Disclosures should include: • An overview of the key features and objectives of remuneration policy. • Whether the remuneration committee reviewed the firm's remuneration policy during the past year, and if so, an overview of any changes that were made. • A discussion of how the bank ensures that risk and compliance employees are remunerated independently of the businesses they oversee.

	(c)	Description of the ways in which current and future risks are taken into account in the remuneration processes. Disclosures should include: • An overview of the key risks that the bank takes into account when implementing remuneration measures. • An overview of the nature and type of the key measures used to take account of these risks, including risks difficult to measure (values need not be disclosed). • A discussion of the ways in which these measures affect remuneration. • A discussion of how the nature and type of these measures has changed over the past year and reasons for the change, as well as the impact of changes on remuneration.
	(d)	Description of the ways in which the bank seeks to link performance during a performance measurement period with levels of remuneration. Disclosures should include: • An overview of main performance metrics for bank, top-level business lines and individuals. • A discussion of how amounts of individual remuneration are linked to bank-wide and individual performance. • A discussion of the measures the bank will in general implement to adjust remuneration in the event that performance metrics are weak.[2]
	(e)	Description of the ways in which the bank seek to adjust remuneration to take account of longer-term performance. Disclosures should include: • A discussion of the bank's policy on deferral and vesting of variable remuneration and, if If the fraction of variable remuneration that is deferred differs across employees or groups of employees, a description of the factors that determine the fraction and their relative importance. • A discussion of the bank's policy and criteria for adjusting deferred remuneration before vesting and (if permitted by national law) after vesting through clawback arrangements.
	(f)	Description of the different forms of variable remuneration that the bank utilises and the rationale for using these different forms. Disclosures should include: • An overview of the forms of variable remuneration offered (ie cash, shares and share-linked instruments and other forms[3]). • A discussion of the use of the different forms of variable remuneration and, if the mix of different forms of variable remuneration differs across employees or groups of employees), a description the factors that determine the mix and their relative importance.

Quantitative disclosures	(g)	Number of meetings held by the main body overseeing remuneration during the financial year and remuneration paid to its member.
	(h)	Number of employees having received a variable remuneration award during the financial year. Number and total amount of guaranteed bonuses awarded during the financial year. Number and total amount of sign-on awards made during the financial year. Number and total amount of severance payments made during the financial year.
	(i)	Total amount of outstanding deferred remuneration, split into cash, shares and share-linked instruments and other forms. Total amount of deferred remuneration paid out in the financial year.
	(j)	Breakdown of amount of remuneration awards for the financial year to show: - fixed and variable. - deferred and non-deferred. - different forms used (cash, shares and share-linked
	(k)	Quantitative information about employees' exposure to implicit (eg fluctuations in the value of shares or performance units) and explicit adjustments (e.g., malus, clawbacks or similar reversals or downward revaluations of awards) of deferred remuneration and retained remuneration: Total amount of outstanding deferred remuneration and retained remuneration exposed to ex post explicit and/or implicit adjustments. Total amount of reductions during the financial year due to ex post explicit adjustments. Total amount of reductions during the financial year due to ex post implicit adjustments.

[2] This should include the bank's criteria for determining "weak" performance metrics. A description of the elements corresponding to other forms of variable remuneration (if any) should be provided.

Table 38(a)

Table 38 (a) to be completed separately for senior management

Total value of remuneration awards for the current fiscal year	**Unrestricted**	**Deferred**
Fixed remuneration		
☐ Cash-based	x	x
☐ Shares and share-linked instruments	x	x
☐ Other	x	x
Variable remuneration		
☐ Cash-based	x	x
☐ Shares and share-linked instruments	x	x
☐ Other	x	x

Issued this 8TH day of SEPTEMBER 2015

DIRECTOR
BANKING SUPERVISION DEPARTMENT

13. ANNEXURES

Annexure 1

Annexure 1: The Current Exposure Method

1. A bank shall use the Current Exposure method (often called the Replacement Cost method) to calculate the credit equivalent amount for OTC derivatives.

2. Under this method, a bank must calculate the current replacement cost (RC) by marking contracts to market, thus capturing the current exposure, without any need for estimation, and then adding a factor (the "add-on") to reflect the potential future exposure over the remaining life of the contract. In order to calculate the credit equivalent amount of these instruments under the current exposure method, a bank would sum:

   (i) The total replacement cost (obtained by "marking-to-market") of all its contracts with positive values; and
   (ii) An amount for potential future credit exposure (the "add-on") calculated on the basis of the total notional principal amount of its book, split by residual maturity as follows:

Table 1: Potential Future Credit Exposure Add-on Factors

	Interest Rate Contracts (percent)	**FX and Gold Contracts (percent)**	**Equity Contracts (percent)**	**Precious Metals, Except Gold (percent)**	**Other Commodities (percent)**
One year or less	0.0	1.0	6.0	7.0	10.0
Over one year to five years	0.5	5.0	8.0	7.0	12.0
Over five years	1.5	7.5	10.0	8.0	15.0

Notes:

(a) For contracts with multiple exchanges of principal, the factors are the number of remaining payments in the contract.

(b) For contracts that are structured to settle outstanding exposures, following specified payment dates, and where the terms are reset such that the market value of the contract is zero on these specified dates, the residual maturity would be set equal to the time until the next reset date. In the case of interest rate contracts with remaining maturities of more than one year, that meet the above criteria, the add-on factor is subject to a floor of 0.5 percent.

(a) Forwards, swaps, purchased options and similar derivative contracts not covered by any of the columns of this matrix, are to be treated as "other commodities".

(b) No potential future credit exposure would be calculated for single currency floating/floating interest rate swaps; the credit exposure on these contracts would be evaluated solely on the basis of their mark-to-market value.

3. A bank must ensure that the add-ons are based on effective, rather than apparent notional amounts. In the event that the stated notional amount is leveraged or enhanced by the structure of the transaction, a bank must use the effective notional amount when determining the potential future exposure.

4. A bank can obtain capital relief from collateral as defined in the CRM section of this Directive. The methodology for the recognition of eligible collateral should be as prescribed by the Bank in the CRM section.

5. The counterparty credit risk exposure amount for single name credit derivative transactions in the trading book will be calculated using the potential future exposure add-on factors set out in paragraph 10.10 of the Market Risk section of this Directive.

6. To determine capital requirements for hedged banking book exposures, the treatment for credit derivatives in this Directive applies to the investment grade[61] credit derivative instruments.

7. Where a credit derivative is an nth-to-default transaction (such as a first-to-default transaction), the treatment specified under paragraph 10.11 of the market risk section applies.

8. Once a bank has calculated the credit equivalent amounts, they are to be **weighted** according to the category of the counterparty, including the concessionary weighting, in respect of exposures backed by eligible guarantees and collateral.

[61] Investment grade refers to securities with an external credit rating of BBB+ and above (paragraph 10.10 of the Market Risk section)

Annexure 2: Capital Treatment for Failed Trades and Non-DvP Transactions

Overarching Principles

1. A bank should continue to develop, implement and improve systems for tracking and monitoring credit risk exposures arising from unsettled and failed transactions, as appropriate, for producing management information that facilitates action on a timely basis.

2. Transactions settled through a delivery-versus-payment system (DvP)[62], providing simultaneous exchanges of securities for cash, expose firms to a risk of loss on the difference between the transaction, valued at the agreed settlement price, and the transaction valued at current market price (i.e., positive current exposure). Transactions where cash is paid without receipt of the corresponding receivable (securities, foreign currencies, gold, or commodities) or, conversely, deliverables were delivered without receipt of the corresponding cash payment (non-DvP, or free-delivery), expose firms to a risk of loss on the full amount of cash paid or deliverables delivered. The current rules set out specific capital charges that address these two kinds of exposures.

3. Capital treatment discussed in this annexure is applicable to all transactions on securities, foreign exchange instruments and commodities that give rise to a risk of delayed settlement or delivery. This includes transactions through recognised clearing houses that are subject to daily mark-to-market and payment of daily variation margins and that involve mismatched trade. Repurchase and reverse repurchase agreements, as well as securities lending and borrowing that have failed to settle, are excluded from this capital treatment[63].

4. In cases of a system wide failure of a settlement or clearing system, the Bank will use its discretion to waive capital charges, until the situation is rectified.

5. Failure by counterparty to settle a trade in itself will not be deemed a default for purposes of credit risk under this Directive.

Capital Requirements

6. For DvP transactions, if the payments have not yet taken place five business days after the settlement date, a bank must calculate a capital charge by multiplying the positive current exposure of the transaction, by the appropriate factor, according to Table 2 below.

[62] For the purpose of this Capital Directive, DvP transactions include payment-versus-payment (PvP) transactions.

[63] All repurchase and reverse-repurchase agreements, as well as securities lending and borrowing, including those that have failed to settle, are treated in accordance with the section on credit risk mitigations of this Directive.

Table 2: Potential Future Credit Exposure Add-on Factors

Number of working days after the agreed settlement date	**Corresponding risk multiplier (percent)**
From 5 to 15	8
From 16 to 30	50
From 31 to 45	75
46 or more	100

7. For non-DvP transactions (i.e., free deliveries), after the first contractual payment/delivery leg, a bank that has made the payment, will treat its exposure as a loan, if the second leg has not been received by the end of the business day. The risk-weights set forth in this Directive for the relevant banking exposure shall be used. However, when exposures are not material, a bank will apply a uniform 100 percent risk- weight to these exposures, in order to avoid the burden of a full credit assessment. If five business days after the second contractual payment/delivery date, the second leg has not yet effectively taken place, a bank that has made the first payment leg will deduct from capital, the full amount of the value transferred, plus the replacement cost, if any. This treatment will apply until the second payment/delivery leg is effectively made.

Annexure 3: Eligible Collateral for Credit Risk

Annexure 3

Table 3: Eligible Collateral for Credit Risk

Eligible Collateral Under the Simple Approach
Cash (including CoDs) deposit with the bank which is incurring the counterparty exposure or similar products issues by the lending bank.
Debt securities rated by a recognised external credit assessment institution where either: • At least BB- if issued by sovereigns or PSEs that are treated as sovereigns; • At least BBB- if issued by other entities, including banks and securities firms; or • At least A-3/P-3 for short-term debt instruments.
Securities that are issued by: • Government of Botswana (Treasury bills, bonds) • Bank of Botswana (Bills)
Debt securities not rated by a recognised external credit assessment institution where these are: • Issued by a bank; • Listed on recognised stock exchange; • Classified as senior debt; • All rated issues of the same seniority by the issuing bank must be rated at least BBB-/P-3 by a recognised credit assessment institution; and • The bank holding the debt has no information that suggests that the debt security justifies a rating below the above level. Bank of Botswana approval must be sought before recognising these as eligible collateral.
Undertakings for Collective Investment in Transferable Securities (UCITS) and mutual funds where: • A price for the units is publicly quoted daily; and • The UCITS/mutual fund is limited to investing in instruments listed above.
Equities (including convertible bonds) included in a main index

Eligible Collateral Under the Comprehensive Approach
All of the instruments in Eligible Collateral Under The Simple Approach;
Equities (including convertible bonds) which are not included in a main index but which are listed on a recognized exchange;
UCITS/mutual funds which include such equities.

Eligible Guarantors/Protection Providers for Credit Risk
1. Sovereigns[64], PSEs, banks[65] and security firms with a risk-weight of 20 percent or better and a lower risk-weight than the counterparty.
2. Other entities rated A- or better. This would include credit protection provided by parent, subsidiary and affiliate companies when they have a lower risk weight than the obligor.

[64] This includes the Bank for International Settlements, the International Monetary Fund, the European Central Bank and the European Community, as well as those MDBs currently eligible for a 0 percent risk weight.
[65] This includes other MDBs.

Annexure 3A: Requirements for Eligible Guarantees and Credit Derivatives

The following conditions must be met for the credit protection deriving from a guarantee (counter-guarantee) or credit derivative to be recognised:

(a) The credit protection must represent a direct claim on the protection provider.

(b) The guarantee or credit derivative must be explicitly referenced to specific exposures or a pool of exposures, so that the extent of the credit protection must be clearly defined and incontrovertible.

(c) The credit protection contract must not contain any clause, the fulfillment of which is outside the direct control of the lender, that:

i. Would allow the protection provider to unilaterally cancel the protection

ii. Would increase the effective cost of protection, as a result of the deteriorating credit quality of the protected exposure.

iii. Would prevent the protection provider from being obliged to pay out in a timely manner, in the event that the original obligor fails to make any payments due.

iv. Could allow the maturity of the credit protection to be reduced by the protection provider.

(d) It must be legally effective and enforceable in all jurisdictions which are relevant at the time of the conclusion of the credit agreement.

Annexure 3B: Additional Requirements for Eligible Guarantees

In addition to the legal certainty requirements for a guarantee to be eligible, the following conditions must also be satisfied:

(a) Upon default or non-payment by a counterparty, a bank must have the right to pursue in a timely manner, the guarantor, for any monies under the claim, in respect of which the guarantee is provided.

(b) The guarantor must either make a lump sum payment of all monies under the claim to the bank or assume the payment obligations of the counterparty that was covered by the guarantee.

(c) A bank must have the right to receive any such payments from the guarantor, without first having to take legal action in order to pursue the counterparty for payment.

(d) The guarantee must be an explicitly documented obligation assumed by the guarantor.

(e) The guarantee must cover all types of payments the underlying obligor is expected to make in respect of the claim.

(f) Where a guarantee covers payment of the principal only, interest and other amounts not covered by the guarantee must be treated as the uncovered portion.

Annexure 3C: Additional Operational Requirements for Credit Derivatives

1. In order for a credit derivative contract to be recognised, the following conditions must also be satisfied:

(a) The credit events specified by the contracting parties must, at a minimum, cover:

(i) failure to pay the amounts due under the terms of the underlying obligation that are in effect at the time of such failure (with a grace period that is closely in line with the grace period in the underlying obligation);

(ii) bankruptcy, insolvency or inability of the obligor to pay its debts, or its failure or admission in writing of its inability generally to pay its debts as they become due, and analogous events; and

(iii) restructuring of the underlying obligation involving forgiveness or postponement of principal, interest or fees that results in a credit loss event (i.e. charge-off, specific provision or other similar debit to the profit and loss account). When restructuring is not specified as a credit event, the requirements of paragraph 2 below shall apply;

(b) If the credit derivative covers obligations that do not include the underlying obligation, section (g) below governs whether the asset mismatch is permissible;

(c) The credit derivative shall not terminate, prior to the expiration of any grace period required for a default on the underlying obligation to occur, as a result of a failure to pay, subject to the provisions of paragraph 8.33; of the Credit Risk Mitigation Techniques section.

(d) In the case of credit derivatives allowing for cash settlement, a robust valuation process must be in place in order to estimate loss reliably. There must be a clearly specified period for obtaining post-credit-event valuations of the underlying obligation. If the reference obligation specified in the credit derivative for purposes of cash settlement is different from the underlying obligation, section (g) below governs whether the asset mismatch is permissible;

(e) If the protection purchaser's right/ability to transfer the underlying obligation to the protection provider is required for settlement, the terms of the underlying obligation must provide that any required consent to such transfer may not be unreasonably withheld;

(f) The identity of the parties responsible for determining whether a credit event has occurred must be clearly defined. This determination must not be the sole responsibility of the protection provider. The protection buyer must have the right/ability to inform the protection provider of the occurrence of a credit event;

(g) A mismatch between the underlying obligation and the reference obligation under the credit derivative (i.e., the obligation used for purposes of determining the cash

settlement value or the deliverable obligation) or between the underlying obligation and the obligation used for purposes of determining whether a credit event has occurred, is permissible if;

(i) the reference obligation or the obligation used for purposes of determining whether a credit event has occurred, as the case may be, ranks *pari passu* with,
or is junior to the underlying obligation; and

(ii) the underlying obligation and reference obligation share the same obligor (i.e., the same legal entity) and legally enforceable cross-default or cross acceleration clauses are in place.

2. When the restructuring of the underlying obligation is not covered by the credit derivative, but the other requirements above are met, partial recognition of the credit derivative shall be allowed. If the amount of the credit derivative is less than or equal to the amount of the underlying obligation, 60 percent of the amount of the hedge shall be recognised as covered. If the amount of the credit derivative is larger than that of the underlying obligation, then the amount of the eligible hedge is capped at 60 percent of the amount of the underlying obligation.

3. Only credit default swaps and total return swaps that provide credit protection equivalent to guarantees, shall be eligible for recognition subject to the operational requirements set out under the Requirements for Eligible Guarantees and Credit Derivatives.

Annexure 3D: Exceptions to the Risk-weight Floor of Collateralised Exposures

A lower risk-weight shall apply, instead of the 20 percent floor, in the following cases:

(i) A 0 percent risk-weight will be applicable, if the exposure and the collateral are denominated in the same currency, and either the collateral is cash on deposit or the collateral is in the form of a sovereign, with a 0 percent risk-weight, and its market value has been discounted by 20 percent;

(ii) Transactions which fulfil the criteria outlined in paragraph 8.53 of the Credit Risk Mitigation Techniques Section (core market participants), and are with a core market participant, receive a risk-weight of 0 percent. If the counterparty to the transactions is not a core market participant the transaction should receive a risk-weight of 10 percent.

(iii) Where the above transaction is collateralised by sovereign securities qualifying for a 0 percent risk-weight under the Standardised Approach to credit risk, a risk-weight of 10 percent shall be assigned; and

(iv) OTC derivative transactions that are subject to daily mark-to-market, collaterised by cash and in the same currency (i.e., no currency mismatch), shall receive a 0 percent risk-weight.

Annexure 4: The Legal Criteria for Netting Arrangements and Bilateral Netting Rules (Set-off Principle)

2. To get approval for netting arrangements, a bank must satisfy the Bank that:

(i) it has executed a written, bilateral netting agreement with the counterparty that creates a single legal obligation, covering all included bilateral master agreements and transactions, such that a bank would have either a claim to receive or obligation to pay only the net sum of the positive and negative (a) closeout values of any included individual master agreements and (b) marked-to-market values of any included individual transactions, in the event a counterparty fails to perform due to any of the following: default, bankruptcy, liquidation or similar circumstances;

(ii) it has written and reasoned legal opinions[66] that conclude, with **a high degree of certainty** that, in the event of a legal challenge, relevant courts or administrative authorities would find a bank's exposure under the Netting Arrangement to be the net amount under the laws of Botswana. In reaching this conclusion, legal opinions must address the validity and enforceability of the entire Netting Arrangement under its terms and the impact of the Netting Arrangement on the material provisions of any included bilateral master arrangement.

(i) it has internal procedures to verify that, prior to including a transaction in a netting set, the transaction is covered by the legal opinions that meet the above criteria;

(ii) the bank undertakes to update the legal opinions, as necessary, to ensure continuing enforceability of the Netting Arrangement, in light of possible changes in the relevant law;

(iii) the Netting Arrangement does not include a walkaway clause. A walkaway clause is a provision which permits a non-defaulting counterparty to make only limited payments, or no payment at all, to the estate of the defaulter, even if a defaulter is a net creditor;

(iv) both transactions (debit and credit balances) must be denominated in the same currency;

(v) counterparty(ies) prompting the debit and credit balances (netting) must have local resident status;

(vi) Deposits must be blocked until the liability (loan) is fully discharged;

(vii) The accounts can only be off-set against each other provided that the account is held in the same right. Thus, a bank cannot set-off a debit balance against a

[66] A legal opinion must be generally recognised as such by the legal community in the firm's home country or a memorandum of law that addresses all relevant issues in a reasoned manner.

credit balance of a customer which, to the banker's knowledge, is held in a representative or fiduciary capacity or for a special purpose;

(viii) each included bilateral master agreement and transaction included in the Netting Arrangement satisfies applicable legal requirements for recognition of bilateral netting of derivative contracts in the main text; and

(ix) a bank maintains all the required documentation in its files.

(x) The net position will be used in assessing compliance with the capital adequacy requirements only. Primary and liquidity reserve requirements, as well as the level of provisions, should be assessed on the basis of the actual balances. However, where money in a fixed deposit account is pledged as a security, the amount of this cash security will continue to be deducted from the amount of loans, before determining the required level of specific provisions.

Annexure 5: Calculating the Operational Risk Capital Charge under the Standardised Approach

The calculation of the capital charge for operational risk under SA follows the following steps:

Step 1: Calculate the capital charge for each business line using its gross income and applicable beta factor in year 1.
Remember, if the gross income from a business line is negative, the capital charge for that business line in year 1 will be negative.

Step 2: Sum the eight capital charges of business lines for Year 1.
Remember, in a year, negative capital charges in some business lines may offset positive capital charges for other business lines, but limited to 50 percent.

Steps 3 and 4: Follow steps 1 and 2 for the other two years.

Step 5: Calculate the 3-year average of the aggregated capital charges.
Remember, where the aggregate capital charge across all business lines in a given year is negative, then the input to the numerator for that year will be zero. The denominator will remain 3, representing the three years included in the calculation.

Annexure 6: Prudent Valuation Guidance

1. This part provides a bank with guidance on prudent valuation for positions in the trading book. This guidance is especially important for less liquid positions which, although not excluded from the trading book solely on grounds of lesser liquidity, would raise issues relating to valuation.

2. A framework for prudent valuation practices should, at a minimum, adhere to the requirements specified below, covering systems and controls, valuation methodologies, independent price verification and valuation adjustments/reserves.

Systems and Controls

3. A bank must establish and maintain adequate systems and controls sufficient to give the bank's management and the Central Bank the confidence that valuation estimates are prudent and reliable. These systems must be integrated with other risk management systems within the bank (such as credit analysis). Such systems must be supported by:

   i) Board-approved policies and procedures on valuation processes. This includes clearly defined responsibilities of the various parties involved in the valuation process, sources of market information and review of their appropriateness, frequency of independent valuation, method of determining closing prices, procedures for adjusting valuations, month end and ad-hoc verification procedures; and,

   ii) Clear and independent (i.e., independent of the front office) reporting lines for the department accountable for the valuation process.

Valuation Methodologies

4. A bank should mark-to-market portfolio positions, at least on a daily basis, based on close out/end of day prices that are sourced independently. Examples of readily available close out prices include exchange prices, screen prices or quotes from several independent reputable brokers. The more prudent side of the bid/offer must be used, unless a bank is a significant market-maker, in a particular position type, and it can close out at mid-market.

5. Where mark-to-market is not possible, a bank may mark-to-model, where this can be demonstrated to be prudent. Marking-to-model is defined as any valuation which has to be benchmarked, extrapolated or otherwise calculated from a market input. When marking-to-model, an extra degree of conservatism is appropriate. The Bank will consider the following in assessing whether a mark-to-model valuation is prudent:

   i) Senior management awareness ontheassumptions usedin constructing the model; their understanding of the materiality of the assumptions used; and its impact on the reporting of the risk/performance of the business;

ii) Regular review of the appropriateness of the market inputs for the particular positions. Market input, for instance, should reflect market prices to the extent possible;

iii) Consistent adoption of generally accepted valuation methodologies for particular products, where available and appropriate;

iv) Use of appropriate assumptions, which have been assessed and challenged by suitably qualified parties independent of the development process. In cases where the models are internally developed, the model should be developed or approved independently of the front office, and independently tested. This includes validating the mathematics, the assumptions and the software implementation;

v) Formal change control procedures in place to govern any changes made to the model and a secure copy of the model should be held and periodically used to check valuations;

vi) Risk managers awareness of the weaknesses of the models used and how best to reflect those in the valuation output;

vii) Periodic review to determine the accuracy of the model's performance (for example, assessing continued appropriateness of the assumptions, analysis of profit and loss versus risk factors, comparison of actual close out values to model outputs); and

viii) Formal valuation adjustments in place where appropriate, for example, to cover the uncertainty of the model valuation.

Independent Price Verification

6. In addition, a bank should also conduct regular independent verification of market prices or model inputs, for accuracy. Verification of market prices or model inputs should be performed by a unit independent of the dealing room, at least monthly (or, depending on the nature of the market/trading activity, more frequently). It need not be performed as frequently as daily mark-to-market, since the objective is to reveal any error or bias in pricing, which should result in the elimination of inaccurate daily marking.

7. Independent price verification should be subjected to a higher standard of accuracy, since the market prices or model inputs would be used to determine the profit and loss figures, whereas daily markings are used primarily for management reporting in between reporting dates. For independent price verification, where pricing sources are more subjective, for example, only one available broker quote, prudent measures such as valuation adjustments may be appropriate.

Valuation Adjustments

8. A bank must establish and maintain procedures for considering valuation adjustments, which should be deducted in the calculation of CET1 capital. The following valuation adjustments shall be formally considered where relevant: unearned credit spreads, close-out costs, operational risks, early termination, investing and funding costs, future administrative costs and, if appropriate, model risk.

9. In addition, a bank shall consider the need for establishing an appropriate adjustment for less liquid positions. The appropriateness of the adjustments shall be subjected to an ongoing review. Reduced liquidity could arise from structural and/or market events. In addition, close-out prices for concentrated positions and/or stale positions are more likely to be adverse. A bank shall, at the minimum, consider several factors when determining whether a valuation adjustment is necessary for less liquid items. These factors include the amount of time it would take to hedge out the risks within the position, the average volatility of bid/offer spreads, the availability of market quotes (number and identity of market makers), and the average and volatility of trading volumes.

Trading Book Policy Statement

10. A bank must have a trading book policy statement with clearly defined policies and procedures for determining which exposures to include in, and to exclude from, the trading book, for purposes of calculating regulatory capital. The Board and senior management of a bank should ensure compliance with the trading book criteria set forth in this chapter, taking into account a bank's risk management capabilities and practices. In addition, compliance with these policies and procedures must be fully documented and subjected to periodic internal audit. This policy statement and material changes to it would be subject to the Bank's review.

11. These policies and procedures should, at a minimum, address the following general considerations:

    i) The activities which a bank considers to be trading, and what constitutes part of the trading book, for regulatory capital purposes;

    ii) The extent to which an exposure can be marked-to-market daily by reference to an active, liquid two-way market;

    i) For exposures that are marked-to-model,[67] the extent to which a bank can:

    - identify the material risks of the exposure;
    - hedge the material risks of the exposure and the extent to which hedging instruments would have an active and liquid two-way market; and
    - derive reliable estimates for the key assumptions and parameters

[67] Determining prices through internal assumptions, parameters or financial models.

used in the model.

ii) The extent to which a bank can and is required to generate valuations for exposures that can be validated externally in a consistent manner;

iii) The extent to which legal restrictions or other operational requirements would impede a bank's ability to effect an immediate liquidation of the exposure;

iv) The extent to which a bank is required to, and can actively manage the risk exposure within its trading operations; and

v) The extent to which a bank may transfer risk or exposures between the banking and the trading books, and the criteria for such transfers.

12. The above considerations, however, should not be treated as an exhaustive and rigid set of tests that a product or group of related products must pass for eligibility in the trading book. Rather, the list should serve as minimum or most fundamental areas for considerations for overall management of a bank's trading book. It should also be supported by detailed policies and procedures.

Annexure 7: Futures and Forward Contracts, Including Forward Rate Agreements (FRAs)

1. These instruments (with the exception of futures or forwards on corporate bonds, corporate bond indices or other corporate securities) are treated as a combination of long and short positions in a notional government security. The maturity period of futures or FRAs will be the period until delivery or exercise of the contract, plus, where applicable, the life of the underlying instrument. For example, a long position in a June three-month interest/profit rate future (taken in April), is to be regarded as a long position in a government security with a maturity of five months, and a short position in a government security with a maturity of two months.

2. In the case of a future or forward on a corporate bond or corporate bond index, positions will be included at the market value of the notional underlying security/portfolio of securities. In the case of foreign currency forward contracts, either a long or a short position in the market value of each underlying currency leg would be recorded in the respective maturity ladder templates capturing the relevant currency interest rate risk.

Swaps

3. Swaps will be treated as two underlying positions in government securities, with relevant maturities. For example, an interest/profit rate swap under which a bank is receiving floating-rate interest/profit and paying fixed, will be treated as a long position in a floating-rate instrument of maturity equivalent to the period until the next interest fixing date, and a short position in a fixed-rate instrument of maturity equivalent to the residual life of the swap.

4. For swaps that pay or receive a fixed or floating interest rate against some other reference price, for example a stock index, the interest/profit rate component should be slotted into the appropriate repricing maturity category, with the equity component being included in the equity framework. The separate legs of cross-currency swaps are to be reported at market value in the relevant maturity ladders for the currencies concerned.

Table 4: Summary of the Treatment of Interest Rate Derivatives, under the Standardised Measurement Method

Instrument	Specific Risk	General Market Risk
Exchange Traded Future		
Government of Botswana Debt Security	No**	Yes, as two positions
Foreign Sovereign Debt Security	Yes	Yes, as two positions
Corporate Debt Security	Yes	Yes, as two positions
Interest Rate Index	No	Yes, as two positions
OTC Forward		
Government of Botswana Debt Security	No**	Yes, as two positions
Foreign Sovereign Debt Security	Yes	Yes, as two positions
Corporate Debt Security	Yes	Yes, as two positions
Interest Rate Index	No	Yes, as two positions
FRAs, Swaps	No	Yes, as two positions
Forward foreign exchange	No	Yes, as one position in each currency
Options		Either: i) Carve out together with the associated hedging positions - simplified approach - scenario analysis ii) General market risk charge according to the delta-plus method (gamma & vega should receive separate capital charges).
Government of Botswana Debt Security	No**	
Foreign Sovereign Debt Security	Yes	
Corporate Debt Security	Yes	
Interest Rate Index	No	
FRAs, Swaps	No	

**Only applies to government debt securities that are rated below AA-

Annexure 8: The 15% of common equity limit on specified items

1. This Annex is meant to clarify the calculation of the 15% limit on significant investments in the common shares of unconsolidated financial institutions (banks, insurance and other financial entities); mortgage servicing rights, and deferred tax assets arising from temporary differences (collectively referred to as specified items).

2. The recognition of these specified items will be limited to 15% of Common Equity Tier I (CET1) capital, after the application of all deductions. To determine the maximum amount of the specified items that can be recognised*, banks and supervisors should multiply the amount of CET1** (after all deductions, including after the deduction of the specified items in full) by 17.65%. This number is derived from the proportion of 15% to 85% (ie 15%/85% = 17.65%).

3. As an example, take a bank with P85 of common equity (calculated net of all deductions, including after the deduction of the specified items in full).

4. The maximum amount of specified items that can be recognised by this bank in its calculation of CET1 capital is P85 x 17.65% = P15. Any excess above P15 must be deducted from CET1. If the bank has specified items (excluding amounts deducted after applying the individual 10% limits) that in aggregate sum up to the 15% limit, CET1 after inclusion of the specified items, will amount to P85 + P15 = P100. The percentage of specified items to total CET1 would equal 15%.

* The actual amount that will be recognised may be lower than this maximum, either because the sum of the three specified items are below the 15% limit set out in this annex, or due to the application of the 10% limit applied to each item.

** At this point this is a "hypothetical" amount of CET1 in that it is used only for the purposes of determining the deduction of the specified items.

Annexure 9:Minority interest illustrative example

This Annex illustrates the treatment of minority interest and other capital issued out of subsidiaries to third parties, which is set out in paragraphs 3.4 to 3.8.

Illustrative example

A banking group consists of two legal entities that are both banks. Bank P is the parent and Bank S is the subsidiary and their unconsolidated balance sheets are set out below.

Bank P balance sheet		**Bank S balance sheet**	
Assets		**Assets**	
Loans to customers	100	Loans to customers	150
Investment in CET1 of Bank S	7		
Invest in the AT1 of Bank S	4		
Investment in the T2 of Bank S	2		
Liabilities and equity		**Liabilities and equity**	
Depositors	70	Depositors	127
Tier II	10	Tiers 2	8
Additional Tier I	7	Additional Tier II	5
Common equity	26	Common equity	10

The balance sheet of Bank P shows that in addition to its loans to customers, it owns 70% of the common shares of Bank S, 80% of the Additional Tier I of Bank S and 25% of the Tier II capital of Bank S. The ownership of the capital of Bank S is therefore as follows:

Capital issued by Bank S			
	Amount to parent (Bank P)	**Amount issued to third parties**	**Total**
Common Equity Tier I (CET1)	7	3	10
Additional Tier I (AT1)	4	1	5
Tier I (T1)	**11**	**4**	**15**
Tier II (T2)	2	6	8
Total capital (TC)	**13**	**10**	**23**

The consolidated balance sheet of the banking group is set out below:

Consolidated balance sheet	
Assets	
Loans to customers	250
Liabilities and equity	
Depositors	197
Tier II issued by subsidiary to third parties	6
Tier II issued by parent	10
Additional Tier I issued by subsidiary to third party	1
Additional Tier I issued by parent	7
Common equity issued by subsidiary to third parties (i.e. minority interest)	3
Common equity	26

For illustrative purposes Bank S is assumed to have risk weighted assets of 100. In this example, the minimum capital requirements of Bank S and the subsidiary's contribution to the consolidated requirements are the same since Bank S does not have any loans to Bank P. This means that it is subject to the following minimum plus capital conservation buffer requirements and has the following surplus capital:

Minimum and surplus capital of Bank S

	Minimum plus capital conservation buffer	**Surplus**
CET1	7.0 (=7.0% of 100)	3.0 (=10 – 7.0)
T1	8.5 (=8.5% of 100)	6.5 (=10 + 5 – 8.5)
TC	10.5 (=10.5% of 100)	12.5 (=10 + 5 + 8 – 10.5)

The following table illustrates how to calculate the amount of capital issued by Bank S to include in consolidated capital, following the calculation procedure set out in paragraphs 3.4 to 3.10:

Bank S: Amount of capital issued to third parties included in consolidated capital

	Total Amount issued (a)	**Amount issued to third parties (b)**	**Surplus (c)**	**Surplus attributable to third parties (i.e. amount excluded from consolidated capital) (d) =(c) * (b) / (a)**	**Amount included in consolidated capital (e) = (b) – (d)**
CET1	10	3	3.0	0.90	2.10
T1	15	4	6.5	1.73	2.27
TC	23	10	12.5	5.43	4.57

The following table summarises the components of capital for the consolidated group based on the amounts calculated in the table above. Additional Tier I is calculated as the difference between Common Equity Tier I and Tier I and Tier II is the difference between Total Capital and Tier I.

	Total amount issued by parent (all of which is to be included in consolidated capital)	**Amount issued by subsidiaries to third parties to be included in consolidated capital**	**Total amount issued by parent and subsidiary to be included in consolidated capital**
CET1	26	2.10	28.10
AT1	*7*	*0.17*	*7.17*
T1	33	2.27	35.27
T2	*10*	*2.30*	*12.30*
TC	43	4.57	47.57