GOVERNMENT GAZETTE

OF THE

REPUBLIC OF NAMIBIA

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BANK OF NAMIBIA

No. 290 2009

DETERMINATIONS UNDER THE BANKING INSTITUTIONS ACT, 1998 (ACT NO. 2 OF 1998): LIMITS ON EXPOSURES TO SINGLE BORROWERS, LARGE EXPOSURES AND CONCENTRATION RISK (BID-4)

In my capacity as Governor of the Bank of Namibia (Bank), and under the powers vested in the Bank by virtue of section 71(3) of the Banking Institutions Act, 1998 (Act No. 2 of 1998), read in conjunction with section 34 of the aforementioned Act, I hereby issue this **Determination on Limits on Exposures to Single Borrowers, Large Exposures and Concentration Risk (BID-4)**, which determination shall become effective on 1 January 2010.

T.K. ALWEENDO
GOVERNOR

Determination No. BID-4

LIMITS ON EXPOSURES TO SINGLE BORROWERS, LARGE EXPOSURES AND CONCENTRATION RISK

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PART I: PRELIMINARY

1. **Short Title –** Single borrowers and large exposures limits.

2. **Authorization** - Authority for the Bank to issue this Determination is provided in Section 71(3) of the Act.

3. **Application** – This Determination applies on a consolidated basis or on both solo and consolidated basis to all banks authorised by the Bank to conduct banking business in Namibia.

4. **Definitions** - Terms used within this Determination are as defined in the Act, as further defined below, or as reasonably implied by contextual usage.

4.1 **"Act" –** means the Banking Institutions Act, 1998 (Act No. 2 of 1998)

4.2 **"bank" –** means banking institution as defined in the Act.

4.3 **"bankers' acceptances"** - means drafts or bills of exchange drawn upon a bank and having a term not more than six months, exclusive of days of grace and (i) which arise out of transactions involving the importation or exportation of goods; (ii) which arise out of transactions involving the domestic shipment of goods or financing of operations; or (iii) which are secured at the time of acceptance by a warehouse receipt or other such document conveying or securing title over readily marketable commodities.

4.4 **"capital funds"** - For the purpose of this Determination, "capital funds" are as defined in the Determination on Capital Adequacy (BID-5).

4.5 **"commercial paper"** - means a short term unsecured money market obligation issued by commercial and financial companies, having a term not more than six months; proceeds are used to finance current obligations; commercial paper is a negotiable instrument and may be issued either at a discount basis or as interest-bearing paper.

4.6 **"common enterprise"** - a common enterprise exists when (i) the expected source of repayment is the same for exposures made to different borrowers, or (ii) exposures are made to persons related by common control, where the persons are engaged in inter-dependent businesses, or where there is substantial financial inter-dependence among them.

For purposes of this paragraph, "control" is presumed to exist when: (a) one or more persons acting together directly or indirectly own, control, or have power to vote 20 per cent or more of any class of voting shares of another person; or (b) one or more persons acting together control, in any manner, the election of a majority of the directors, trustees, or others exercising similar functions over another person; or (c) any other circumstances exist which indicate that one or more persons acting together exercise a controlling influence, directly or indirectly, over the management or policies of another person.

4.7 **"common or correlated underlying factors"** - for the purpose of this Determination refer to those risk factors to which a person or group of counterparties in a specific economic or industry sector are exposed; and (a) whose performance is dependent on the same activity or commodity; or (b) where correlations in the probability of default can be identified.

4.8 **"concentration risk"**- means the risk of a possible loss due to direct or indirect overexposure to a single person or group of related persons or unrelated counterparties in a specific economic or industry sector.

Risk concentrations can arise in a bank's assets, liabilities, or off-balance sheet items, through the execution or processing of transactions (either product or service), or through a combination of exposures across these broad categories. By their nature, risk concentrations are based on common or correlated risk factors, which, in times of stress, have an adverse effect on the creditworthiness of each of the individual counterparties making up the concentration.

4.9 **"exposure"** – for the purposes of this Determination exposure shall have the same meaning as credit facility and shall include any direct or indirect advance of funds made to a person or group of related persons on the basis of an obligation to repay the funds. Examples of exposure are, but not limited to, on-balance sheet loans, advances, overdrafts, redeemable preference shares, holdings of papers off-balance sheet commitments (e.g. acceptances and guarantees on behalf of the person or group of related persons), underwriting facilities, endorsements, placements, documentary credits issued, performance bonds and other contingent liabilities.

4.10 **" large exposure"** - means any exposure to a single person or group of related persons which, in the aggregate, equals or exceeds 10% of a banking institution's capital funds.

4.11 **"marketable commodities"** - means agricultural or mining commodities such as agricultural staples, mineral ores, etc. which are traded on established domestic or international markets and for which there are recognized daily price quotations.

4.12 **"money market instruments"** - means financial instruments which are traded under ordinary circumstances with reasonable promptness at a fair market value determined by quotations based on actual transactions at an auction or a similarly available daily bid and ask price market. This includes stocks, notes, bonds, and debentures traded on a recognized securities exchange, commercial papers, negotiable certificates of deposit, and bankers' acceptances.

4.13 **"Person(s)"** – for the purpose of this Determination, refers to natural and juristic persons. It includes any partnership, any public body, and any body of persons, corporate or unincorporated. It applies to any single person or group of related persons, to companies which share the same controller, to subsidiaries of the same holding company, to any holding company and its subsidiaries, to any natural person and one or more companies of which that natural person is a controller. The term "person or group of related persons" is also clarified in the scenarios stated in paragraph 10 of this Determination.

4.14 **"Segregated deposit"** – means a deposit account, usually savings or time deposit rather than checking, in the same bank as the lending bank and in some way tagged or frozen or identified as pledged against a loan.

PART II: STATEMENT OF POLICY

5. **Purpose** - This Determination is intended to set certain conditions and limitations on the borrowing of excessive amounts of a bank's funds by one person or a group of related persons or group of counterparties whose performance is determined by the common or correlated underlying factors. It is also intended to safeguard a bank's depositors and creditors by diversifying risks among several persons engaged in different lines of business.

6. **Scope** - This Determination applies to all exposures held or reflected on a bank's balance sheet or otherwise held or reflected as off-balance sheet items.

7. **Responsibility -** The board of directors of each bank shall be responsible for establishing policies and procedures which are adequate to ensure that (a) all exposures fully comply with the limitations set forth in the Act and in this Determination; (b) all exposures are made and administered in accordance with prudent lending practices, and (c) the bank's framework for managing risk concentrations is clearly documented and shall include a definition of risk concentrations relevant to the bank and how these concentrations and their corresponding limits are calculated. (d) all internal limitations are defined in relation to bank's capital, total assets or, where adequate measures exist, its overall risk level.

PART III: IMPLEMENTATION AND SPECIFIC LIMITATIONS

8. **General Limitations -** The following limits shall apply to the approved limit for the credit facilities or the amount outstanding, whichever is higher:

8.1 **General**: the total of all exposures outstanding at any time to a single person, or a group of related persons shall not exceed 30 per cent of a bank's capital funds.

8.2 **Aggregate of large exposures**: the aggregate of all large exposures (i.e. an exposure which individually equals or exceeds 10 per cent of a bank's capital funds) shall not exceed 800 per cent of a bank's capital funds.

8.3 **Exemption by Bank of Namibia:** approval to exceed the limits in paragraphs 8.1 and 8.2 above, if requested by a bank pursuant to section 34(1) of the Act may only be granted by the Bank subject to the following conditions:

(i) The total exposure to a person or a group of related persons or counterparties in a specific economic or industry sector shall not exceed the amount stated in the exemption request submitted to the Bank;

(ii) The exposure shall comply in all respects with a written lending policy that has been adopted and approved by the board of directors of the bank;

(iii) Before requesting the Bank's approval, the exposure shall be reviewed and approved by a majority of the entire board of directors of the bank, and so documented in the minutes of the board; and

(iv) Before requesting the Bank's approval, the bank shall have made a request to at least three other banks, at least two of which are not affiliated with the bank, to participate in the loan by (a) joining in a syndication of the exposure, or (b) purchasing the portion that exceeds the single borrower limit and have been denied by all three,

and written documentation of such requests and denials shall be maintained.

9. **Exceptions** - The following exceptions shall apply to the limits in paragraph 8 above:

9.1 **Discounted paper.** Exposures arising from the discount of commercial paper negotiated with full recourse to the issuer shall not count against the person discounting the commercial paper to the purchasing bank.

9.2 **Bankers' acceptances.** The aggregate amount of bankers' acceptances (including participations therein) which have been issued or accepted by another bank shall not exceed more than 200 per cent of the purchasing bank's capital funds.

9.3 **Marketable commodities.** A bank may lend up to 50 per cent of its capital funds so long as the total of all exposures, which exceed the 30 per cent limits in paragraph 8 above, is secured by marketable commodities. For this exception to apply, the marketable commodities held as security must: (i) have a current value that is at least 125 per cent at all times of the exposures that exceed 30 per cent of the bank's capital funds, and (ii) be fully insured.

9.4 **Government and Bank of Namibia.** Exposures granted to or fully secured by obligations of the Government of Namibia or the Bank of Namibia or secured by the guarantee of the Government of Namibia shall be exempted from the above limits.

9.5 **Segregated deposits.** Exposures which are fully or partly secured at all times by a segregated deposit account in the lending bank shall be exempt, to the extent they are covered by such deposit account, from the lending limits set forth in paragraph 8 above. For this exception to apply, the bank must have the legal right of offset for the deposit. Also, if the deposit is in a different currency than the secured exposure, then the deposit must be revalued at least weekly to existing exchange rates. Finally, if the value of the pledged deposit declines and results in an unsecured exposure exceeding the lending limits, then the exposure must be brought into conformance within five (5) working days.

9.6 **Bank guaranteed debts.** A bank may lend up to 50 per cent of its capital funds so long as the total of all exposures which exceed the lending limits in paragraph 8 above is guaranteed by another bank as to both principal and interest. However, for this exception to apply, the guaranteeing bank (i) must not be associated with the lending bank, (ii) must not be rated lower than the three highest grades by a rating agency of recognized international standing, (iii) the aggregate of all exposures guaranteed by another bank shall not exceed at any time more than 200 per cent of the lending bank's capital funds, and (iv) the aggregate of all exposures, including guarantee, by the guaranteeing bank to the person or group of related persons shall not exceed the lending limits in paragraph 8 above.

10. **Combining loans to separate borrowers** - (a) **Combination**: Exposures made to one person will be combined with exposures made to another person when (i) the exposure proceeds are used for the direct benefit of the other person ('use' test), or (ii) a common enterprise exists between the persons ('source' test). The "source

test" shall be deemed to exist when the expected source of repayment for a loan is the same for each person or the "use test" is deemed where separate persons borrow from one banking institution for the purpose of acquiring an entity where those persons own more than 50% of the controlling or voting rights

(b) **Determination**: For purpose of this Determination, the Bank will decide when an exposure nominally made to one person will be combined with exposures to another person. Such decision will be made in the case where there is doubt as to whether or not to combine two or more exposures or where the Bank discovers that two or more exposures that ought to have been combined are treated as separate exposures. The Bank shall take the following factors into account in deciding when exposures should be combined: common ownership/control, common directors or management, guarantees or cross guarantees and direct commercial interdependency which cannot be substituted in the short term.

11. Loans to partnerships

11.1 **To the group**: For purposes of this Determination, exposures to a partnership will be considered exposures to each member of the partnership.

11.2 **For purchasing interests**: For purposes of this Determination, exposures made to members of a partnership for the purpose of purchasing an interest in the partnership will be combined with exposures made to the partnership.

12. Loans written off - The lending limits in paragraph 8 above apply to all existing loans, including any loans or portions thereof, which have been written off in whole or in part. Loans which have been discharged in bankruptcy or which are no longer legally enforceable in a court of law are not subject to the lending limits.

13. Loan participations - When a bank sells a participation in a loan, the portion that has been sold will not count against the lending limits in paragraph 8; however, to be excluded, (i) the participation agreement must require that if a default occurs, all participants will share pro rata in repayments and collections relative to their participation percentages at the time of default and (ii) the sale transaction for a portion of a loan shall be a cash transaction. For the purpose of this paragraph, cash transaction is a transaction of which payment is made within a period of not more than seven working days.

14. Loan syndications - When two or more banks collectively make a loan to a single borrower, only the amount actually loaned or the approved limit allocated by each bank and representing its pro rata share of the syndicated loan will count against the limits set forth in paragraph 8 above.

15. Interest or discount on loans - The limits set forth in paragraph 8 above shall not apply to any portion of an exposure which represents accrued interest unless such interest has been capitalized or in any way converted to principal.

16. Non-conforming exposures - (a) If an exposure complies with the lending limits in paragraph 8 above when it is made but later fails to comply because (i) the bank's capital funds decline, (ii) the borrower merges or forms a common enterprise with another borrower, (iii) the bank merges with another bank which is also lending to the borrower, (iv) the lending limit or capital funds rules change, or (v) collateral securing the exposure fails to qualify as an exception under paragraph 9, then the exposure will be treated as 'nonconforming'.

(b) If an exposure becomes 'nonconforming' for reasons (i-iv) above, then the bank must use all reasonable efforts to promptly bring the exposure into compliance with lending limits unless doing so would be inconsistent with safe and sound banking practices.

(c) If an exposure is 'nonconforming' for reason (v) above, then the bank must bring the exposure into compliance within 30 calendar days of the date that the exposure became nonconforming, unless judicial proceedings, regulatory actions, or other circumstances beyond the bank's control prevent the bank from taking action.

17. **Stress-testing -** Banks should conduct regular stress-testing (at least once a year) of large exposures and concentration risk to assess the impact of different scenarios and of the potential losses that may arise from changes in the key risk factors such as economic or industry downturn, interest rate and any other market movements that may adversely have any impact on the bank.

When conducting stress-tests, management of banks should note that during periods of economic calm, concentrations in a bank's portfolio are unlikely to have any noticeable effects on performance or credit quality as usually measured and, as such, can remain latent. Bank management should understand that the real threat arises in an adverse economic scenario, where connected or correlated exposures all show increased risk of default at the same time. The results of stress-tests must be used to prepare for possible real adverse impacts that may affect the bank.

18. **Reporting Requirements**

The bank shall, at the end of each calendar quarter submit to the Bank returns in terms of this Determination by not later than the 26th day of the following month.

PART IV: REMEDIAL MEASURES

19. **Remedial measures** - If a bank fails to comply with this Determination, then 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 practices.

PART V: EFFECTIVE DATE

20. **Effective date** - The effective date of this Determination shall be 1 January 2010.

21. **Repeal of BID-4** - This Determination repeals and replaces the Determinations on Limits on Exposures to Single Borrowers (BID-4) published, as General Notice No. 279, in the Government Gazette No. 3078 of 30 October 2003.

Questions relating to this Determination should be addressed to the Director, Banking Supervision Department, Bank of Namibia, Tel: 283-5040.

BANK OF NAMIBIA

No. 291 2009

DETERMINATION UNDER THE BANKING INSTITUTIONS ACT 1998,
(ACT NO. 2 OF 1998): MEASUREMENT AND CALCULATION OF CAPITAL CHARGES
FOR CREDIT RISK, OPERATIONAL RISK AND MARKET RISK (BID-5)

In my capacity as Governor of the Bank of Namibia (Bank), and under the powers vested in the Bank by virtue of section 71(3) of the Banking Institutions Act, 1998 (Act No. 2 of 1998), read in conjunction with section 28 and 29 of the aforementioned Act, I hereby issue this Determination on the **Measurement and Calculation of Capital Charges for Credit Risk, Operational Risk and Market Risk (BID-5)**. The Determination on Capital Adequacy (BID-5) published, as general notice No. 280, in the Government Gazette No.3078 of 30 October 2003, is hereby repealed.

T.K. ALWEENDO
GOVERNOR

Determination No. BID-5

MEASUREMENT AND CALCULATION OF CAPITAL CHARGES FOR CREDIT RISK, OPERATIONAL RISK AND MARKET RISK

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PART I: PRELIMINARY

1. **Short Title** - Capital Adequacy

2. **Authorization** - Authorization for the Bank to issue this determination is provided in Section 71(3) of the Banking Institution Act, 1998("Act")

3. **Application** - This determination applies to all banks authorised by the Bank to conduct banking business in Namibia.

4. **Definitions** - Terms used within this determination are as defined in the Act, as further defined below, or as reasonably implied by contextual usage:

4.1.1 **"bank"**- means banking institution as defined in Section 1 of the Act.

4.1.2 **"Tier 1 (core) capital"**- includes permanent shareholder's equity (issued and fully paid-up ordinary shares and perpetual non cumulative preference shares) plus disclosed reserves (additional paid-in share premium plus retained earnings/undistributed profits) plus minority interest in consolidated subsidiaries.

4.1.3 **"Tier 2 (supplementary) capital"**- includes asset revaluation reserves; general loan loss provisions; subordinated debt; hybrid (debt equity) capital instruments and unaudited profits.

4.1.4 **"Tier 3 (tertiary) capital"** - includes short term subordinated debt that may be used only to cover a portion of banking institution's capital charges for market risk. This means that all capital requirements for credit risk including credit risk in derivative instruments in the trading book and banking book, must be met by capital as defined under tier 1 and tier 2 capital above.

4.1.5 **"Total assets"**- means the total assets reported in financial return required to be submitted to the Bank, less intangible assets.

4.1.6 **"Total qualifying capital"**- means tier 1 capital plus tier 2 capital and tier 3 capital.

PART II: STATEMENT OF POLICY

5. **Purpose** - This determination is intended to ensure that: (a) banks maintain a level of capital which is adequate to protect its depositors and creditors; (b) is commensurate with the risk activities and profile of the bank; and (c) promotes public confidence in the bank and the banking system.

6. **Scope** - This determination applies to all banks authorized to conduct banking business in Namibia.

7. **Responsibility** - The board of directors of each bank shall be responsible for establishing and maintaining at all times an adequate level of capital. The board of directors shall also be responsible for establishing effective risk management process that identify, measure, monitor and control all types of risk that threatens the capital of the bank. The capital levels required herein are the minimum acceptable for banks that are fundamentally sound, well managed, and have no material financial or operational weaknesses. Higher capital level may be required for individual banks based on circumstances listed under paragraph 10 below.

PART III: IMPLEMENTATION AND SPECIFIC REQUIREMENTS

8. **Capital eligibility and measures**

8.1 Eligibility of capital elements (criteria)

8.1.1 Tier 1 Capital (also known as core capital or primary capital):

A capital instrument will <u>not</u> qualify as Tier 1 Capital if it is subject to any condition, covenant, term, restriction or provision that:

(a) Unduly interferes with the ability of the bank to conduct normal banking operation;

(b) Requires unjustified dividend or interest payment relative to the financial condition of the bank or permits redemption by the holder in the event of financial deterioration;

(c) Impairs the ability of the bank to comply with regulatory requirements regarding the disposition of assets or incurrence of additional debts; or

(d) Limit the ability of the regulatory authority to take any actions for the purpose of resolving problem or failing banks.

8.1.2 Tier 2 Capital (also known as supplementary capital or secondary capital):

(a) Revaluation reserves. A bank may include in its tier 2 capital, only reserves arising from the revaluation of premises and other fixed assets owned by the bank provided that the assets are prudently valued by an independent sworn appraiser, fully reflecting the possibility of price fluctuation and forced sale. In addition, the revaluation of fixed assets for purposes of inclusion in tier 2 capitals shall only be permitted after a period of three years from the date of purchase or 3 years from the date of last revaluation, whichever is later.

(b) General provisions/general loan loss reserves: provisions or loan loss reserves held against future, presently un-indentified losses are freely available to meet losses which subsequently materialise and therefore qualify for inclusion within supplementary elements. Provisions ascribed to impairment of particular assets or known liabilities shall be excluded. Where provisions include amount reflecting lower valuations of assets or latent but unidentified losses already present in the balance sheet, the amount of such provisions or reserves eligible for inclusion will be limited to a maximum of 1.25 per cent of risk-weighted assets for credit risk under the Standardised Approach.

(c) Hybrid (debt equity) capital instrument: This heading includes a range of instruments, which combine characteristics of equity capital and of debt. To qualify for tier 2 capital, these instrument require prior approval of the Bank and they must meet the following requirements:

- They must be unsecured, subordinate and paid-up;
- They must not be redeemable at the initiative of the holder or without the prior consent of the Bank;
- They must be available to participate in losses without the bank being obliged to cease trading (unlike conventional subordinated debt);
- It must allow service obligations to be deferred (as with cumulative preference shares) where the profitability of the bank would not support payment even although the capital instrument may carry obligation to pay interest that cannot permanently be reduced or waived (unlike divided on ordinary shareholder's equity. Cumulative preference shares and mandatory convertible debt instrument, having the above characteristics, are examples of hybrid instruments.

(d) Subordinate term debts: Unlike the hybrid capital instruments, the instruments under this category are not normally available to participate in the loss of the bank which continues trading since they are able to absorb losses only on liquidation. This deficiency justifies an additional restriction on the amount of such debt capital which shall be eligible for inclusion in the capital base, in that the eligible amount shall be restricted to a maximum of 50% of tier 1 capital. In addition, to qualify for tier 2, subordinate term debt

requires prior written approval of the Bank and must satisfy the following conditions:

- The debt must be unsecured and fully paid-up;
- The debt must have a minimum original fixed term to maturity of five years;
- Early repayment or redemption shall not be made without the prior written consent of the Bank;
- The debt eligible for inclusion shall be subjected to straight line amortization[1] over the last five years of its life to reflect the diminishing value of such debt as a continuous source of strength to the capital position of the banking institution; and
- There shall be no restrictive covenants.

(e) Unaudited profits: Current year unaudited profits approved by the banks' board of directors and reflected in the minutes of such meeting shall be included in tier 2 capital once per quarter.

8.1.3 Tier 3 Capital (also known as Tertiary Capital):

To be eligible for trading book capital treatment, financial instruments must either be free of any restrictive covenants on their tradability or ability to hedge completely.

Include short-term subordinated debt: The instruments under this category may be used to cover market risk within certain limits, as set forth under paragraph 11 below. Tier 3, short-term subordinated debt requires prior written approval of the Bank and must satisfy the following conditions:-

- the debt must be unsecured and fully paid-up;
- the debt must have a minimum original fixed term to maturity of at least two years;
- not repayable before the agreed payment date, unless with the prior written consent of the Bank;
- no asset of the borrowing banking institution may be pledged or otherwise encumbered as collateral for any liability by virtue of the short-term subordinated debt; and
- the debt shall be subject to a lock-in clause that the Bank may deem appropriate, whereby a banking institution may be required to defer both interest and principal (even at maturity), if such payment means that the banking institution will fall below or remain below the minimum capital requirements.

[1]Amortization based on the following sliding scale:

Included in capital	100%	80%	60%	40%	20%	0%
Years to maturity	5 years or more	4 years and < 5 years	3 years and < 4 years	2 years and < 3 years	1 year and < than 2 years	Less than 1 year

8.2 Capital measures - the ratios used for measuring capital adequacy are:

a) Leverage (equity) capital ratio (i.e. Tier 1 capital divided by gross assets; for purpose herein, "gross assets" means total assets plus general and specific provisions).

b) Tier 1 risk-based capital ratio (i.e. Tier 1 capital divided by total risk-weighted assets).

c) Total risk-based capital ratio (i.e. Total qualifying capital divided by total risk-weighted assets).

9. **Minimum Requirements** - the following minimum ratios shall apply (unless higher ratios are set by the Bank for an individual bank based on criteria set forth in paragraph 10 below):

(a) Leverage capital: the minimum leverage ratio shall be 6.0%. However, if a bank is pursuing or experiencing significant growth, has inadequate risk management systems, an inordinate level of risk, or less than satisfactory asset quality, management, earnings or liquidity, a higher minimum ratio may be required.

(b) Tier 1 risk-based capital: the minimum tier 1 ratio shall be 7.0% .However, if the bank is pursuing or experiencing significant growth, has inadequate risk management systems, an inordinate level of risk, or less than satisfactory assets quality, management, earnings or liquidity, a higher minimum ratio may be required.

(c) Total risk-based capital: the minimum ratio shall be 10.0%. However, if a bank is pursuing or experiencing significant growth has inadequate risk management systems, an inordinate level of risk, or less than satisfactory asset quality, management, earnings or liquidity, a higher minimum ratio may be required.

10. **Criteria for higher minimum ratios** - the Bank may require higher minimum ratios for an individual bank if any of the following criteria apply: The bank-

10.1 has been operating less than three years;
10.2 has, or is expected to have, losses resulting in capital deficiency;
10.3 has significant exposures to risk, whether credit, concentration of credit, market, interest rate, liquidity, operational, or any form of other non-traditional activities;
10.4 has a high, or particular severe, volume of poor quality assets;
10.5 is growing rapidly, either internal or through acquisitions;
10.6 may be adversely affected by the activities or conditions of its parent holding company, subsidiaries or associates; or
10.7 has deficiencies in its ownership; or management (shareholding structure; composition; or qualifications of directors or officers; or risk management policies or procedures).

11. **Limits and restrictions** - the sum of Tier 1, Tier 2 and Tier 3 elements will be eligible for inclusion in the capital based, subject to the following:

(i) Subordinated term debts will be limited to a maximum of 50% of Tier 1 elements;

(ii) Tier 3 capital will be limited to 250% of a bank's excess of Tier 1 capital that is required to support market risk. This means that a minimum of 28 1/2% of market risk needs to be supported by Tier 1 capital that is not required to support risks in the remainder of the book.

(iii) Tier 2 capital elements may be substituted for Tier 3, subject to the same limit of 250%, in so far as the overall limits under the main capital requirements are not breached, that is to say eligible tier 2 capital may not exceed total tier 1 capital, and long-term subordinated debt may not exceed 50% of tier 1 capital

(iv) The sum of total Tier 2 capital and Tier 3 capital shall not exceed 100% of total tier 1 (core) capital.

(v) Where general provisions/general loan-loss reserves include amount reflecting lower valuations of asset or latent but unidentified losses present in the balance sheet, the amount of such provisions or reserves will be limited to a maximum of 1.25 percentage point; and

(vi) Asset revaluation reserve which takes the form of latent gains on unrealised securities will be subject to a discount of 55%.

12. **Deductions from capital** - the following items will be deducted from the capital of the bank:

12.1 Deduction from tier 1 capital

12.1.1 Goodwill related to consolidated subsidiaries, subsidiaries deconsolidated for regulatory capital purposes, and the proportional share of goodwill in joint ventures subject to proportional consolidation;
12.1.2 Investment in unconsolidated banking and financial subsidiary companies;
12.1.3 Investment in the capital of other banks and financial institutions (at the discretion of national authority); and significant minority investment in other financial entities);
12.1.4 Increase in equity capital resulting from a securitization transactions (e.g. capitalised future margin income, gains on sale);
12.1.5 Current year unaudited losses;
12.1.6 50% of credit-enhancing interest-only strips, net of any increases in equity capital resulting from securitization transaction;
12.1.7 For third party investors, 50% of investments in securitisation exposures with long-term credit ratings B+ and below, and in unrated exposures;
12.1.8 For third party investors, 50% of investments in securitisation exposures with short-term credit ratings below A-3/P-3/R-3 and in unrated exposures;
12.1.9 For originating banks, 50% of retained securitisation exposures that are rated below investment grade (below BBB-), or that are unrated;
12.1.10 Deductions from tier 2 capital in excess of total tier 2 capital limit available.

12.2 Deductions from tier 2 capital

12.2.1 Back-to-back placements of new tier 2 capital, arranged either directly or indirectly, between banking and financial institutions;

12.2.2 50% of credit-enhancing interest-only strips, net of any increases in equity capital resulting from securitization transaction;

12.2.3 50% of investments in unconsolidated subsidiaries and in subsidiaries deconsolidated for regulatory capital purposes, net of goodwill that is deducted from tier 1 capital

12.2.4 For third party investors, 50% of investments in securitisation exposures with long-term credit ratings B+ and below, and in unrated exposures;

12.2.5 For third party investors, 50% of investments in securitisation exposures with short-term credit ratings below A-3/P-3/R-3 and in unrated exposures;

12.2.6 For originating banks, 50% of retained securitisation exposures that are rated below investment grade (below BBB-), or that are unrated;

13. Calculation of minimum capital requirements

Banks are expected to meet minimum risk-based capital requirements for exposure to credit risk, operational risk and, where they have trading activities, market risk. Total risk-weighted assets are determined by multiplying the capital requirements for market risk and operational risk by 10.0 (i.e., the reciprocal of the minimum capital ratio of 10 percent) and adding the resulting figures to risk-weighted assets for credit risk. The capital ratio is calculated by dividing regulatory capital (total qualifying capital) by risk-weighted assets.

$$\text{Risk Based Capital Ratio} = \frac{\text{Capital}}{[\text{Credit RWA}_{\text{Standardised}} + 10.0 * \text{Operational Risk}_{\text{Standardised}} + 10.0 * \text{Market Risk}_{\text{standardised}}]}$$

Where:

Capital = Total qualifying capital after applying all deductions and limitations for calculating the capital ratio.

Credit RWA = Risk-weighted assets for credit risk determined using the standardised approach in Part IV.

Operational Risk = The operational risk capital charge calculated using the standardised approach in Part V.

Market Risk = The market risk capital charge using calculated using the standardised approach in Part VI.

PART VI: CREDIT RISK-STANDARDIZED APPROACH

14. Calculation of credit risk

14.1 A bank shall calculate its capital adequacy ratio, in relation to credit risk, as the ratio (expressed as a percentage) of the institution's capital base to an amount ("relevant amount") representing the degree of risk-weighted credit risk to which the institution is exposed obtained by-

14.1.1 Calculation of risk-weights amount of the on balance sheet exposures by multiplying the gross amount of each asset net of specific provisions if any, by the asset's relevant risk-weight;

14.1.2 For off-balance sheet exposures, a straightforward and approximate methodology is used to incorporate the off-balance exposure into the risk-weight capital framework. This involves the conversion of the credit risk inherent in each off-balance sheet item into an on-balance sheet credit-equivalent by multiplying the nominal gross amount of the off-balance exposures by a credit conversion factor. The resultant credit equivalent amount is assigned to the appropriate risk category according to the nature of the claims;

14.1.3 Aggregate the figures derived under paragraph 14.1.1 and 14.1.2 to arrive at the relevant amount.

14.2 Banks may in calculating their capital adequacy ratios in relation to credit risk, reduce the risk-weighted amount of the bank's exposures in respect of an on-balance sheet asset or off-balance sheet exposures of the bank by taking into account the effect of any recognised credit risk mitigation techniques in respect of on-balance sheet asset or off-balance sheet exposure, as the case may be.

14.3 Where an on-balance sheet asset and off-balance sheet exposure of a banking institution has a current External Credit Assessment Institution's (ECAI) specific rating of the banking institution shall not be subjected to the requirements of paragraph 14.2 above as the credit risk mitigation aspect has already been taken into account in the rating.

15. Risk-weights and exposure types

The supervisory risk weights to be assigned to various types of exposures in terms of this determination are those that are prescribed under the Basel II framework and are designed to ensure that the level of regulatory capital maintained by banks is commensurate with the degree of credit risk inherent in different types of exposures, taking into account whether such exposures have an ECAI rating or not, and are structured as follows:

15.1 **Claim on sovereigns**
Claims on sovereign and their central banks will be risk-weighted as follows:

15.1.1 Where a sovereign has a current ECAI issuer rating, or a debt obligation issued or undertaken has a current ECAI rating, then the bank shall map the ECAI rating, as the case may be to a scale of uniform credit quality grades represented by the symbols of AAA to AA-, A+ to A-, BBB+ to BBB-, BB+ to B-, Below B- and Unrated for exposures to clients not assigned any ratings.

15.1.2 Where a sovereign has no current ECAI rating including a current short-term ECAI rating assigned to the debt obligation issued or undertaken by the sovereign, the bank shall allocate a risk-weight of 100% to a claim by the institution on the sovereign.

15.1.3 A risk-weight of 0% shall be permitted to banks' exposures to the sovereign (or central bank) of incorporation denominated in domestic currency and funded in that currency subject to the

condition that the local sovereign and the local central bank controls the issuing of local currency.

Table 1: Risk-weighting of claims on sovereigns and their central banks

Credit Assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Un-rated
Risk-weight	0%	20%	50%	100%	150%	100%

15.2 **Claims on Public Sector Entities (PSE)**
Claims on non-central government public sector entities will be risk-weighted as follow;

15.2.1 All public sector entities claims shall be risk-weighted one category less favorable than the sovereign, subject to a floor of 20%, to claims with an original maturity of 3 months or less denominated and funded in domestic currency;

15.2.2 The exposures to PSE with an original maturity of more than three months and above shall be risk-weighted at 50%;

15.2.3 Where PSE is rated the credit rating assigned to the entity can be used for the purpose of applying risk-weight. However it should be noted here that in the event such rating deteriorated while being utilized for risk weighting, banks will not be allowed to use the risk bucket of unrated PSE.

15.2.4 Claims on Namibia Regional governments and local authorities are allocated a standard risk-weight of 20% regardless of the maturity profile of their exposures.

15.3 **Claims on Multilateral Development Banks (MDB)**
Claims on Multilateral Development Banks will be risk-weighted as follows:

15.3.1 All Multilateral Development Banks will be risk-weighted at 0% subject to complying to all eligibility criteria listed in Annex A of this determination; or

15.3.2 The risk-weighting will be based on the external credit assessment of the bank itself with claims on unrated banks being risk-weighted at 50%. Under this option, a preferential risk-weight that is one category more favourable may be applied to claims with an original maturity of three months or less subject to a floor of 20%. This treatment will be available to both rated and unrated banks, but not to banks which are risk-weighted at 150%. (Table 2 on credit assessment of banks is applicable)

15.4 **Claims on Banks**
Claims on banks shall be risk-weighted as follows:

15.4.1 All banks shall be risk-weighted based on their external credit assessment taking into account the maturity profiles of exposures as set out in table 2 below. Long-term claims on unrated banks will be risk-weighted at 50%.

Short-term claims that are funded and denominated in domestic currencies including unrated exposures shall be risk-weighted at 20% except for short-term exposures rated BB+ to B- and below B- that shall be risk-weighted at 50% and 150% respectively. All short-term claims that are funded and denominated in foreign currencies shall be risk-weighted utilising the risk-weight buckets of long term-exposures set out in table 2. For the purpose of claims on banks, short-term means a period of three months or less.

Table 2: Risk-weighting of claims on banks

Credit assessment of banks	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk-weight For long term exposures	20%	50%	50%	100%	150%	50%
Risk-weight for Short-term exposures	20%	20%	20%	50%	150%	20%

15.5 **Claims on Security firms**

15.5.1 Claims on security firms may be treated as claims on banks, provided such firms are subjected to supervisory and regulatory arrangements comparable to those under the Basel Framework (specifically risk based capital requirements). Claims on security firms not subjected to supervisory and regulatory arrangement shall be risk weighted following the rules applicable to claims on corporates.

15.6 **Claims on corporate/commercial**

15.6.1 Risk-weighting for rated corporates including claims on insurance companies will be based on the external credit assessment rating, while the risk-weighting for unrated corporate will be capped at 100%.

15.6.2 No claim for corporates will be assigned a risk-weight preferential to that assigned to the sovereign of its incorporation.

Table 3: Risk-weighting of claims on corporates

Credit assessment	AAA to AA-	A+ to A-	BBB+ to BB-	Below BB-	Unrated
Risk weight	20%	50%	100%	150%	100%

15.7 **Claim included in the retail portfolios**

Retail exposures will be risk-weighted at 75% subject to the condition that the following criteria are fully complied with:

15.7.1 **Orientation criterion** - the exposure is to an individual person or persons or to a small business;

15.7.2 **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 lease (e.g. instalment loans, auto loans and lease, student loan and educational loans, personal finance) and small business facility and commitments;

15.7.3 Granularity criteria - The regulatory retail portfolio is sufficiently diversified to a degree that reduces the risk in the portfolio, warranting the 75% risk weight. Individual banks may achieve this by establishing a numerical limit that no aggregates exposure to one counterparty can exceed 0.2% of the overall regulatory portfolio.

15.7.4 Low value of individual exposures - The maximum aggregated retail exposures to one counterpart cannot exceed an absolute threshold of N$ 7.5 million. Any retail exposures not meeting the above listed criteria shall be risk-weighted at 100%.

15.8 **Claim secured by residential mortgage property**

All exposures secured by mortgage on residential property that is or will be occupied by a borrower or that is rented, will be risk-weighted at 50%

15.8.1 The 50% risk-weight must be applied restrictively for residential purposes only.

15.8.2 Mortgage loans granted against the second, third or any other subsequent bond may also be accorded a reduced weight of 50% subject to the following conditions:

(i) Firstly, the bank is the holder of the first mortgage bond.

(ii) Secondly, in the event the bank is not the holder of the first mortgage bond then 100% risk weight shall be applied. As a prudential measure, it is a requirement in terms of this determination that recent valuation report of the concerned property and the level of the client's exposure to the holder of the first mortgage bond, if any, must be obtained prior to the application of 50% risk-weight to determine the uncovered portion.

(iii) The unsecured portion of claims secured by residential mortgage bond that are past due for 90 days or more shall be risk-weighted at 100%, net of specific provisions.

15.9 **Claim secured by commercial real estate**

15.9.1 All exposures secured by mortgage on commercial real estate shall be risk-weighted 100%.

15.10 **Treatment of past due loans**

The unsecured portion of any loan, shall be risk-weighted taking into account the unsecured portion of any exposures that is past due for more than 90 days including rescheduled exposures which are not reclassified back to the accrual status as outlined in BID-2. The respective risk-weights shall be applied net of specific provisions (including partial write-offs) and shall be treated as follows:

15.10.1 A risk-weight of 150% will be assigned to exposures where the specific provisions amount is less than 20% of the outstanding balance of the loan;

15.10.2 A risk-weight of 100% will be applied to exposures where the specific provisions amount equal to or exceed 20% of the outstanding balance, but less than 50% of the outstanding balance of the loan;

15.10.3 A risk-weight of 50% will be applied to exposure where the specific provisions amount is equal to 50% or more of the outstanding balance of the loan.

15.10.4 Exposures that are rescheduled due to other arrangement and are not past due for 90 days or more shall not be subjected to the treatment outlined above.

15.11 **Treatment of high risk categories**

Assets grouped under these categories include claims on sovereigns, banks and security firms rated below "B-" , claims on corporate rated below "BB-" and past due loans where the amount of specific provisions is less than 20% of the outstanding loan amount. These assets shall be risk-weighted 150% or higher depending on the underlying risk associated with the claim. A risk-weight of 350% shall be applied to securitization exposures that are assigned an external credit assessment rating of BB+ to BB-.

15.12 **Other assets**

Other assets refers to other form of exposures that do not fit into the risk-weight structures of the above categories or claims, and all assets grouped under this category shall be risk-weighted as outlined in Table 4 below.

Table 4

Asset Types	Risk Weight
Cash, gold, coin and bullion, tax overpaid	0%
Foreign notes and coins	0%
Statutory Reserve with Bank of Namibia	0%
Items in transit	20%
Investment in Equity or regulatory capital instruments Issued by banks or security firms, fixed assets and other assets	100%

15.13 **Off-balanace sheet items**

A straight forward and approximate methodology is used to incorporate the off-balance sheet exposures into the risk-weight capital framework. This involves the conversion of credit risk inherent in each off-balance sheet item into an on-balance sheet credit equivalent by multiplying the nominal principal amount of the off-balance sheet exposures by a credit conversion factor (CCF). The resultant credit-equivalent amount is assigned to the appropriate risk category according to the nature of the claim. Table 5 below outline the credit conversion factors that shall be applied to various off-balance sheet exposures.

CCFs not specified in Table 5 below such as OTC derivatives and Securities Financing Transactions (SFTs) that expose a bank to counterparty credit risk is to be calculated under the rules set forth in Annexure F. Banks must closely monitor securities, commodities, and foreign exchange transactions that have failed, starting the first day they fail. A capital charge to failed transactions must be calculated in accordance with **Annexure E**.

With regard to unsettled securities, commodities and foreign exchange transactions, the Bank is of the opinion that banks are exposed to counterparty credit risk from trade date, irrespective of the booking or the accounting of the transaction. Therefore, banks are 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, banks must calculate a capital charge as set forth in **Annexure E**.

Table 5: Risk-weighting for off-balance sheet items

Off-balance sheet items	Credit Conversion Factors (CCF)
Commitment with original maturity of up to one year	20%
Commitment with original maturity of more than one year	50%
Commitments that are unconditionally cancellable at any time without prior notice or that provide for automatic cancellation due to the deterioration of the borrower's credit worthiness.	0%
Repurchase type of transactions involving security borrowing and lending	100%
Short term self liquidating trade letters of credits with an original maturity of up to one year.	20%
Direct credit substitute e. g. general guarantees of indebtedness (including stand by letter of credit serving as financial guarantees for loans and securities) and acceptance	100%
Sales and repurchase agreement and assets sale with recourse where the credit risk remain with the bank	100%
Lending of bank's security or the posting of security as collateral by banks including instances where these arise out of repo-style transaction	100%
Forward assets purchase, forward deposits and partly-paid shares and securities which represent commitment with certain draw down	100%
Certain transaction-related contingent items such as performance bond, bid bonds, warrantees and stand by letters of credit related to particular transactions	50%
Note issuance facilities (NIFs) and revolving underwriting facilities (RUFs)	50%

16. Treatment of collateral

16.1 To ensure adherence to legal certainty, all documentation used in collateralized 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. Banks must have conducted sufficient legal review to verify this and have a well founded conclusion, and undertake such further review as necessary to ensure continuous enforceability.

16.2 In addition to the general requirement for legal certainty, the legal mechanism by which collateral is pledged or transferred must ensure that the bank has the right to liquidate or to take legal possession thereof in a timely manner, in the event of default, insolvency or bankruptcy of the

counterparty. Furthermore, banks must take all steps necessary to fulfill those requirements under the laws applicable to the bank's interest in collateral for obtaining and maintaining an enforceable security interest.

16.3 In order for collateral to provide protection, the credit quality of the counterparty of the collateral must not have a material positive correlation and collateralized transactions with maturity mismatches are not recognized for the purposes of credit protection.

16.4 Banks 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 collateral can be liquidated promptly.

16.5 Where the collateral is held by a custodian other than the lending institution, banks must take reasonable steps to ensure that the custodian segregate the collateral from its own assets.

16.6 The risk weight of the collateral instrument protecting in whole or in part the exposures is substituted for the risk weight of the counterparty. The portion of the exposure secured by the financial collateral receives the financial collateral risk weight, which cannot be lower than 20% except in the following three scenarios.

16.6.1 Certain repo-style transactions receive a 0% risk weight when both exposure and collateral are cash or a sovereign / public sector entity qualifying for a 0%, both exposure and collateral are denominated in the same currency and the counter party is a core market participant. However, if the counterparty is not a core market participant, but if other conditions are fulfilled the risk weight to be applied is 10%;

16.6.2 OTC derivative transactions are risk weighted at 0% if it is subjected to daily mark to market, collateralized by cash and have no currency mismatch. However, if the collateral is a security issued by a sovereign or public sector entity qualifying for a 0% risk weight, the exposure will be risk-weighted at 10%.

16.6.3 Collateralized transactions receive a 0% risk-weight where the exposure and the collateral are in the same currency and the collateral is either cash on deposit or made up of sovereign/public sector entity securities eligible for 0% risk weight and which market value has been discounted by 20%.

16.7 Collateral should be valuated on a regular basis, though the frequency may vary with the types of collateral involved and the performance of the underlying exposure.

16.8 Banks can use a number of techniques to mitigate the credit risk to which they are exposed provided that all the legal requirements outlined above are adhered to. The following collateral types/risk mitigation techniques are recognized under this determination for the purpose of providing capital relief:

16.8.1 Pledge of investment/fixed deposits, cash deposits or certificate of deposits;

16.8.2 Gold and coins

16.8.3 Guarantees issued by the government;

16.8.4 Guarantees issued by licensed bank;

16.8.5 Debt securities rated by a recognized external credit assessment institution where these are either:

i) at least BB- when issued by Sovereign or PSE that are treated as sovereigns by the national supervisor; or
ii) at least BBB- when issued by other entities (including banks and security firms); or
iii) at least A- 3/P-3 for short term debt instruments.

16.8.6 Debt securities not rated by a recognized external credit assessment institution where such instruments are: issued by banks; and listed on recognized exchange; and classified as senior debts; and all rated issue of same seniority by the issuing bank must be rated at least BBB- or A-3/P-3; and the bank holding the security has no reason to suggest that the issue justifies a rating below BBB- or A-3/P-3; and the regulator is sufficiently confident about the market liquidity of the security.

16.8.7 Undertakings for Collective Investment in Transferable Securities (UCITS) and mutual funds where a price for the units is publicly quoted daily; and UCITS/mutual funds are limited in investing in the instruments listed in paragraph 16.11.5.

17. Securitization

17.1 Securitization is the process by which relatively homogenous pools of loans, originally made by a bank, are converted into tradable securities. The prime objectives of securitization are to increase the liquidity of the loans, diversify the sources of funding and to reduce the originating bank's capital requirements where certain conditions are fulfilled.

17.2 Banks that are involved in securitization transactions are required to hold regulatory capital against all their securitization exposures and should follow the standardized approach in computing their risk-weighted amount for on balance sheet securitization position and off-balance sheet securitization exposures.

17.3 For on balance sheet securitization positions, the risk-weighted asset amount of securitization exposures are computed by multiplying the amount of the position by the appropriate risk-weights as reflected in paragraphs 17.4 and 17.5 below. For off-balance sheet securitization exposures, banks must apply credit conversion factors (which in this case is 100%) and, thereafter risk-weight, the resultant credit equivalent amount according to the nature of the exposure, except for those off-balance sheet securitization exposures that qualifies as an "eligible liquidity facility" or an "eligible servicer cash advance facility" which shall receive a more favorable risk-weight of 0%, 20% and 50% subject to certain conditions.

17.4 Long term securitization exposures that are assigned an external credit assessment rating of AA to AA- shall receive a risk-weight of 20%, whereas exposure assigned an external credit assessment rating of A+ to A- shall be risk-weighted 50%. A risk-weight of 100% and 350% shall be applied to securitization exposures that are assigned an external credit assessment rating of BBB+ to BBB- and BB+ to BB- respectively. Deduction from regulatory capital can be considered in respect of long term securitization exposures that are either unrated or assigned an external credit assessment rating of B+ and below.

17.5 Short term securitization exposures that are assigned an external credit assessment rating of A-1/P-1 shall receive a risk-weight of 20%, while a risk-weight of 50% and 100% will be applied to short term securitization exposures that are assigned an external credit assessment rating of A-2/P-2 and A-3/P-3 respectively. All other securitization exposures falling under short term category that are either unrated or assigned other ratings other than those shown above, shall be considered for deduction from regulatory capital.

17.6 Credit conversion factors for "eligible liquidity facilities" and "eligible servicer cash advance facility" including both controlled and non-controlled early amortization features, shall be applied in the following manner:

17.6.1 Where conditions for the eligible liquidity facilities as reflected in **Annexure B** of this determination are met, the bank shall apply a 20% CCF to the amount of eligible liquidity facilities with an original maturity of one year or less, and a 50% CCF shall be applied to eligible liquidity facilities with an original maturity of more than one year. However, if an external rating of the facility itself is used for the purpose of risk-weighting the facility, a 100% CCF shall be applied.

17.6.2 Where conditions for eligible servicer cash advance facilities as outlined in **Annexure B** of this determination are fully complied with, the bank shall apply 0% credit conversion factors to exposure amount of an eligible servicer cash advance facilities.

17.6.3 Where conditions for controlled early amortization features as delineated in **Annexure C** of this determination are fully satisfied, the credit conversion factors applicable to both retail and non-retail credit lines falling in the category of controlled early amortization shall be applied as outlined in Table 6 below:

Table 6: Controlled Early Amortization Features

	Uncommitted	Committed
Retail credit lines	**3-month average excess spread Credit conversion factors(CCF)** 133.33% or more of trapping point 0% CCF Less than 133.33% to 100% of trapping point 1% CCF Less than 100% to 75% of trapping point 2% CCF Less than 75% to 50% of trapping point 10% CCF	**90% CCF**

	Less than 50% to 25% of trapping point 20% CCF Less than 25% of trapping point 40% CCF	
Non retail credit lines	**90% CCF**	**90% CCF**

17.6.4 Where conditions for non-controlled early amortization features as delineated in **Annexure C** of this determination are fully adhered to, the credit conversion factors applicable to both retail and non-retail credit lines categorized under non-controlled early amortization shall be applied as sketched out in Table 7 below.

17.6.5 The operational requirements for the recognition of risk transference for traditional securitization, synthetic securitizations and treatment of clean-up calls are detailed in **Annexure D** of this determination.

Table 7: Non-controlled early amortization features

	Uncommitted	**Committed**
Retail Credit Lines	3-month average excess spread Credit Conversion Factors(CCF) 133.33% or more of trapping point 0% CCF Less than 133.33% to 100% of trapping point 5% CCF Less than 100% to 75% of trapping point 15% CCF Less than 75% to50% of trapping point 50% CCF Less than 50% of trapping point 100% CCF	**100% CCF**
Non-retail Credit lines	**100% CCF**	**100% CCF**

17.7 When a bank is required to deduct a securitization exposure from regulatory capital as part of realization of capital relief offered by securitization transactions, the deduction shall be taken 50% from tier 1 and 50% from tier 2. Deduction from capital shall be calculated net of any specific provisions made for relevant securitization exposures. Banks shall deduct from tier 1 only, any increase in equity capital resulted from a securitization transaction that are associated with expected future margin income (FMI) resulting in a gain-on-sale that is recognized in regulatory capital.

18. ANNEXURES

ANNEXURE A: Eligibility Criteria for MDBs

Claims on Multilateral Development Banks shall be risk-weighted at 0% when the following eligibility criteria as set in the Basel II framework by the committee are satisfied

(a) High quality long-term issuer ratings where an MDB's external assessment must be AAA;

(b) Shareholder's structures must be comprised of a significant proportion of sovereigns with long-term issuer of credit assessments of AA- or better, or the majority of the MDB's fund raising are in the form of paid-in equity/ capital and there is little or no leverage;

(c) Strong shareholders support demonstrated by the amount of paid-in capital contributed by the shareholders; the amount of further capital the MDBs have the right to call, if required, to repay their liabilities; and continue capital contributions and new pledges from sovereign shareholders.

(d) Adequate level of capital and liquidity (a case by case is necessary in order to assess whether each MDB's capital and liquidity are adequate); and

(e) Strict statutory lending requirements and conservative financial policies, which would include among others, the conditions of a structured approval process, internal creditworthiness and risk concentration limits (per country, sector, and individual exposure and credit category), large exposures approval by the board or a credit committee of the board, fixed repayment schedules, effective monitoring of use of proceeds, status review process and rigorous assessment of risk and provisioning to loan loss reserve.

ANNEXURE B

1. Eligible Liquidity Facilities

Banks are permitted to treat off-balance sheet securitization exposures as eligible liquidity facilities if the following minimum requirements are satisfied.

a) The facility documentation must clearly identify and limit the circumstances under which it may be drawn. Draws under the facility must be limited to the amount that is likely to be repaid fully from the liquidation of the underlying exposures and any seller-provided credit enhancement. In addition, the facility must not cover any losses incurred in the underlying pool of exposures prior to a draw, or be structured such that draw-down is certain (as dictated by regular or continuous draws)

b) The facility must be subjected to an asset quality test that precludes it from being drawn to cover credit risk exposures that display default status. In addition, if the exposures that a liquidity facility is required to fund have an external rated securities, the facility can only be used to fund securities that are externally rated investment grade at the time of funding.

c) The facility cannot be drawn after all applicable credit enhancements from which the liquidity facility would benefit, have been exhausted; and

d) Repayment draw on the facility must not be subordinated to any interest of any note holder in the programme or subject to deferral or waiver.

Where these conditions are met, the bank may apply a 20% CCF to the amount of eligible liquidity facilities with an original maturity of one year or less, and a 50% CCF shall be applied to the eligible liquidity facilities with an original maturity of more than one year. However, in the event an external rating of the facility itself is used for risk-weighting the facility, a 100% CCF must be applied. For both controlled and non-controlled early amortization, a credit line is considered uncommitted if it is unconditionally cancellable without prior notice.

2. Eligible liquidity facilities available only in the event of market disruption

Banks may apply a 0% CCF to eligible liquidity facilities that are only available in the event of general market disruption (i.e. where upon more than one SPE across different transactions are unable to roll over maturing commercial paper, and the inability is not the result of an impairment in the SPEs' credit quality or in the credit quality of the underlying exposures). To qualify for this treatment the requirements of eligible liquidity facilities must be complied with. Additionally, the fund advanced by the bank to pay holder of capital market instrument when there is a general market disruption must be secured by the underlying assets and must rank at least pari passu (equally) with the claims of holders of the capital market instruments.

3. Eligible Servicer Cash advance Facilities

When the servicer is a banking institution other than the originator of securitization transactions it is permitted under this determination to advance cash to ensure uninterrupted flow of payment to investors so long as the servicer is contractually entitled to full reimbursement and this right is senior to other claims on cash flow from the underlying pool of exposures. Undrawn cash advances or facilities that are unconditionally cancellable without prior notice shall receive a 0% Credit Conversion Factor.

ANNEXURE C

Controlled and non-controlled early amortization features

Early amortization provisions are mechanisms that, once triggered, allow investors to be paid out prior to the original stated maturity of the securitized issued. For risk based purposes, an early amortization provision will be considered either controlled or non-controlled.

Controlled early amortization

A controlled early amortization provision must meet all of the following conditions.

a) The bank must have an appropriate capital/liquidity plan in place to ensure that it has sufficient capital and liquidity available in the event of an early amortization.

b) Throughout the duration of the transaction, including the amortization period, there is the same pro rata sharing of interest, principal, expenses, losses and recoveries based on the banks and investor's relative shares of the receivable outstanding at the beginning of each month.

c) The bank must set a period for amortization that would be sufficient for at least 90% of the total debt outstanding at the beginning of the early amortization period to have been repaid or recognized as in default; and

d) The pace of repayment should not be any more rapid than would be allowed by straight-line amortization over the period set out in criterion (c).

Non-controlled early amortization

An early amortization provision that does not satisfy the conditions for a controlled early amortization **in part or in whole**, shall be treated under this determination as a non-controlled early amortization provision.

ANNEXURE D

Operational requirements for the recognition of risk transference

1. Traditional securitization

Under traditional securitization exposures, an originating bank may exclude securitized exposure from the calculation of risk-weighted assets only if all of the following conditions have been met. However, banks meeting these conditions must still hold regulatory capital against any securitization exposures they retain.

a) Significant credit risk associated with the securitized exposures has been transferred to a third party.

b) The transferor does not maintain effective or indirect control over the transferred exposures. The assets are legally isolated from the transferor in such a way that the exposures are put beyond the reach of the transferor and it's creditors, even in the bankruptcy or receivership. These conditions must be supported by an opinion provided by a qualified legal counsel.

c) The securities issued are not obligations of the transferor. Thus, investor who purchase the securities only have claim to the underlying pool of exposures.

d) The transferee is a Special Purpose Entity (SPE) and the holder of the beneficial interest in that entity has the right to pledge or exchange them without any restriction.

e) The securitization does not contain clauses that (i) require the originating bank to alter systematically the underlying exposures such that the pool's weighted average credit quality is improved unless this is achieved by selling assets to independent and unaffiliated third parties at market prices; (ii)allow for increase in a retained first loss position or credit enhancement provided by the originating bank after the transaction's inceptions; or (iii) increase the yield payable to parties other than the originating bank, such as the investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the underlying pool.

2. Synthetic securitizations

For synthetic securitizations, the use of credit risk mitigation techniques (i.e. collateral, guarantees and credit derivatives) for hedging the underlying exposures may be recognized for risk-based capital purposes only if the conditions outlined bellow are satisfied:

a) Credit risk mitigation techniques must comply with the requirements as set out in section **16** of this determination.

b) Eligible collateral for the purpose of providing capital relief are limited to those specified in paragraph **16.8** of this determination. Eligible collateral pledged by SPE may be recognized.

c) Eligible guarantors are defined in paragraph **16.8.3** and **16.8.4** of this determination. Bank may not recognize SPEs as eligible guarantors in the securitization framework.

d) Bank must transfer significant credit risk associated with the underlying exposures to third parties.

e) The instruments used to transfer credit risk may not contain terms or conditions that limit the amount of credit risk transferred, such as the following:

- Clauses that materially limit the credit protection or credit risk transference (e.g. significant materiality threshold below which credit protection is deemed not to be triggered even if a credit event occurs or those that allow for the termination of the protection due to deterioration in the credit quality of the underlying exposures).

- Clause that requires the originating bank to alter the underlying exposures to improve the pool's weighted average credit quality;

- Clause that increase the bank's cost of credit protection in response to deterioration in the pool's quality;

- Clause that increase the yield payable to parties other than the originating bank, such as the investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the reference pool; and

- Clause that provide for increase in a retained first loss position or credit enhancements provided by the originating bank after the transaction's inception.

3. Treatment of clean-up calls

For securitization transactions that include a clean-up call, no capital will be required due to the presence of a clean-up call if the following conditions are met:

a) The exercise of the clean-up call must not be mandatory, in form or substance, but rather must be at the discretion of the originating bank;

b) The clean-up call must not be structured to avoid allocating losses to credit enhancements or position held by investors or otherwise structured to provide credit enhancements; and

c) The clean-up call must only be exercisable when 10% or less of the original underlying portfolio, or securities issued remains, or for synthetic securitizations when 10% or less of the original reference portfolio value remains.

Securitization transactions that include a clean-up call that do not meet all of the above criteria shall result in capital requirements for the originating bank. For a traditional securitization, the underlying exposures must be treated as if they were not securitized, while for synthetic securitization, the bank purchasing protection must hold capital against the entire amount of securitized exposures as if they did not benefit from any credit protection.

4. Maintaining control over the transferred credit exposures

For the purpose of securitization transactions, the transferor is deemed to have maintained effective control over the transferred exposures if it: (i) is able to repurchase from the transferee the previously transferred exposures in order to realize their benefits; (ii) is obligated to retain the risk of the transferred exposures. However, the transferor's retention of servicing rights to the exposures will not necessarily constitute indirect control of the exposures.

Annexure E: <u>Capital Treatment for Failed Trades and Non-DvP Transactions</u>

I. Overarching principles

1. Banks should continue to develop, implement and improve systems for tracking and monitoring the 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), 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.

3. The following capital treatment 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 a 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[2].

[2]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 Annexure F or the section on credit risk mitigations above.

4. In cases of a system wide failure of a settlement or clearing system, the Bank may use its discretion to waive capital charges until the situation is rectified.

5. Failure of a counterparty to settle a trade in itself will not be deemed a default for purposes of credit risk under this determination.

II. Capital requirements

6. For DvP transactions, if the payments have not yet taken place five business days after the settlement date, firms must calculate a capital charge by multiplying the positive current exposure of the transaction by the appropriate factor, according to the table below.

Number of working days after the agreed settlement date	Corresponding risk multiplier
From 5 to 15	8%
From 16 to 30	50%
From 31 to 45	75%
From 46 or more	100%

A reasonable transition period up to 1 January 2010 may be allowed for banks to upgrade their information system to be able to track the number of days after the agreed settlement date and calculate the corresponding capital charge.

Annexure F: <u>Treatment of Counterparty Credit Risk and Cross-Product Netting</u>

1. This annexure identifies permissible methods for estimating the Exposure at Default (EAD) or the exposure amount for instruments with counterparty credit risk (CCR).

2. The CCR is the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows. An economic loss would occur if the transactions or portfolio of transactions with the counterparty has a positive economic value at the time of default. Unlike a firm's exposure to credit risk through a loan, where the exposure to credit risk is unilateral and only the lending bank faces the risk of loss, CCR creates a bilateral risk of loss: the market value of the transaction can be positive or negative to either counterparty to the transaction. The market value is uncertain and can vary over time with the movement of underlying market factors.

Scope of application

3. The methods for computing the exposure amount under the standardised approach for credit risk or EAD to credit risk described in this Annexure are applicable to Securities Financing Transactions (SFTs) and OTC derivatives.

4. Such instruments generally exhibit the following abstract characteristics:

- The transactions generate a current exposure or market value.
- The transactions have an associated random future market value based on market variables.
- The transactions generate an exchange of payments or an exchange of a financial instrument (including commodities) against payment.
- The transactions are undertaken with an identified counterparty against which a unique probability of default can be determined.

5. Other common characteristics of the transactions to be covered may include the following:

- Collateral may be used to mitigate risk exposure and is inherent in the nature of some transactions.
- Short-term financing may be a primary objective in that the transactions mostly consist of an exchange of one asset for another (cash or securities) for a relatively short period of time, usually for the business purpose of financing. The two sides of the transactions are not the result of separate decisions but form an indivisible whole to accomplish a defined objective.
- Netting may be used to mitigate the risk.
- Positions are frequently valued (most commonly on a daily basis), according to market variables.
- Remargining may be employed.

6. An exposure value of zero for counterparty credit risk can be attributed to derivative contracts or SFTs that are outstanding with a central counterparty (e.g. a clearing house). This does not apply to counterparty credit risk exposures from derivative transactions and SFTs that have been rejected by the central counterparty. Furthermore, an exposure value of zero can be attributed to banks' credit risk exposures to central counterparties that result from the derivative transactions, SFTs or spot transactions that the bank has outstanding with the central counterparty. This exemption extends in particular to credit exposures from clearing deposits and from collateral posted with the central counterparty. A central counterparty is an entity that interposes itself between counterparties to contracts traded within one or more financial markets, becoming the legal counterparty such that it is the buyer to every seller and the seller to every buyer. In order to qualify for the above exemptions, the central counterparty CCR exposures with all participants in its arrangements must be fully collateralized on a daily basis, thereby providing protection for the central counterparty's CCR exposures. Assets held by a central counterparty as a custodian on the bank's behalf would not be subject to a capital requirement for counterparty credit risk exposure.

7. Under all of the three methods identified in this Annexure, when a bank purchases credit derivative protection against a banking book exposure, or against a counterparty credit risk exposure, it will determine its capital requirement for the hedged exposure subject to the criteria and general rules for the recognition of credit derivatives, i.e. substitution or double default rules as appropriate. Where these rules apply, the exposure amount or EAD for counterparty credit risk from such instruments is zero.

8. The exposure amount or EAD for counterparty credit risk is zero for sold credit default swaps in the banking book where they are treated in the framework as a guarantee provided by the bank and subject to a credit risk charge for the full notional amount.

9. Under all three methods identified in this Annexure, the exposure amount or EAD for a given counterparty is equal to the sum of the exposure amounts or EADs calculated for each netting set with that counterparty.

Cross-product netting rules

10. Banks that receive approval to estimate their exposures to CCR may include within a netting set SFTs, or both SFTs and OTC derivatives subject to a legally valid form of bilateral netting that satisfies the following legal and operational criteria for a Cross-Product Netting Arrangement (as defined below). The bank must also have satisfied any prior written approval or other procedural requirements that the Bank determines to implement for purposes of recognising a Cross-Product Netting Arrangement.

Legal Criteria

11. The bank has executed a written, bilateral netting agreement with the counterparty that creates a single legal obligation, covering all included bilateral master agreements and transactions ("Cross-Product Netting Arrangement"), such that the bank would have either a claim to receive or obligation to pay only the net sum of the positive and negative (i) closeout values of any included individual master agreements and (ii) mark-to-market values of any included individual transactions (the "Cross-Product Net Amount"), in the event a counterparty fails to perform due to any of the following: default, bankruptcy, liquidation or similar circumstances.

12. The bank has written and reasoned legal opinions that conclude with a high degree of certainty that, in the event of a legal challenge, relevant courts or administrative authorities would find the firm's exposure under the Cross-Product Netting Arrangement to be the Cross-Product Net Amount under the laws of all relevant jurisdictions. In reaching this conclusion, legal opinions must address the validity and enforceability of the entire Cross- Product Netting Arrangement under its terms and the impact of the Cross-Product Netting Arrangement on the material provisions of any included bilateral master agreement.

    - The laws of "all relevant jurisdictions" are: (i) the law of the jurisdiction in which the counterparty is chartered and, if the foreign branch of a counterparty is involved, then also under the law of the jurisdiction in which the branch is located, (ii) the law that governs the individual transactions, and (iii) the law that governs any contract or agreement necessary to effect the netting.
    - 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.

13. The bank has internal procedures to verify that, prior to including a transaction in a netting set, the transaction is covered by legal opinions that meet the above criteria.

14. The bank undertakes to update legal opinions as necessary to ensure continuing enforceability of the Cross-Product Netting Arrangement in light of possible changes in relevant law.

15. The Cross-Product 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 the defaulter is a net creditor.

16. Each included bilateral master agreement and transaction included in the Cross-Product Netting Arrangement satisfies applicable legal requirements for recognition of (i) bilateral netting of derivatives contracts in paragraphs 26(i) to 26(v) of this Annex.

17. The bank maintains all required documentation in its files.

Operational Criteria

18. The Bank is satisfied that the effects of a Cross-Product Netting Arrangement are factored into a bank's measurement of a counterparty's aggregate credit risk exposure and that the bank manages its counterparty credit risk on such basis.

19. Credit risk to each counterparty is aggregated to arrive at a single legal exposure across products covered by the Cross-Product Netting Arrangement. This aggregation must be factored into credit limit and economic capital processes.

Current Exposure Method

20. Banks shall use the current exposure method to calculate the credit equivalent amount. The current exposure method is to be applied to OTC derivatives only; SFTs are used under the Internal Model Method.

21. (i) Under the Current Exposure Method, banks must calculate the current replacement cost 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. It has been agreed that, in order to calculate the credit equivalent amount of these instruments under this current exposure method, a bank would sum:

a. The total replacement cost (obtained by "marking to market") of all its contracts with positive value; and
b. An amount for potential future credit exposure calculated on the basis of the total notional principal amount of its book, split by residual maturity as follows:

	Interest rates	**FX and Gold**	**Equities**	**Precious metals (exc gold)**	**Other commo-dities**
One year or less	0.05	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%	7.55	10.0%	8.0%	15.0%

Notes:

1. For contracts with multiple exchanges of principal, the factors are to be multiplied by the number of remaining payments in the contract.

2. For contracts that are structured to settle outstanding exposure 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%.

3. 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".

4. 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.

21. (ii) The Bank will take care to 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, banks must use the effective notional amount when determining potential future exposure.

22. Banks can obtain capital relief for collateral as defined in paragraph 16 above.

23. The counterparty credit risk exposure amount or EAD for single name credit derivative transactions in the trading book will be calculated using the potential future exposure add-on factors.

24. To determine capital requirements for hedged banking book exposures, the treatment for credit derivatives in this Framework applies to qualifying credit derivative instruments.

25. Where a credit derivative is an nth-to-default transaction (such as a first-to-default transaction), the treatment specified under market risk.

Bilateral netting

26. (i) For capital adequacy purposes:

(a) banks may net transactions subject to novation under which any obligation between a bank and its counterparty to deliver a given currency on a given value date is automatically amalgamated with all other obligations for the same currency and value date, legally substituting one single amount for the previous gross obligations.

(b) banks may also net transactions subject to any legally valid form of bilateral netting not covered in (a), including other forms of novation.

(c) In both cases (a) and (b), a bank will need to satisfy the Bank that it has:

(i) A netting contract or agreement with the counterparty which creates a single legal

obligation, covering all included transactions, such that the bank would have either a claim to receive or obligation to pay only the net sum of the positive and negative mark-to-market values of included individual transactions in the event a counterparty fails to perform due to any of the following: default, bankruptcy, liquidation or similar circumstances;

(ii) Written and reasoned legal opinions that, in the event of a legal challenge, the relevant courts and administrative authorities would find the bank's exposure to be such a net amount under:

(iii) The law of the jurisdiction in which the counterparty is chartered and, if the foreign branch of a counterparty is involved, then also under the law of the jurisdiction in which the branch is located;

(iv) The law that governs the individual transactions; and

(v) The law that governs any contract or agreement necessary to effect the netting.

(vi) Procedures in place to ensure that the legal characteristics of netting arrangements are kept under review in the light of possible changes in relevant law.

The Bank, after consultation when necessary with other relevant supervisors, must be satisfied that the netting is enforceable under the laws of each of the relevant jurisdictions;

26. (ii) Contracts containing walkaway clauses will not be eligible for netting for the purpose of calculating capital requirements. 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 a defaulter, even if the defaulter is a net creditor.

26. (iii) 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 net current replacement cost to gross current replacement cost (NGR). This is expressed through the following formula:

$$A_{Net}=0.4*A_{Gross}+0.6*NGR*A_{Gross}$$

where :

NGR=level of net replacement cost/level of gross replacement cost for transactions subject to legally enforceable netting agreements.

26. (iv) 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 20 to 26 of this Annex. For purposes 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.

Risk weighting

26. (v) Once a bank has calculated the credit equivalent amounts they are to be **weighted** according to the category of counterparty in the same way as in the main framework, including concessionary weighting in respect of exposures backed by eligible guarantees and collateral.

PART V: OPERATIONAL RISK

19. Measurement approaches to operational risk

(a) All banks shall comply with the standardised approach (TSA) for the measurement of a bank's exposures to operational risk.

(b) A newly established bank that wishes to adopt the TSA approach for the measurement of a bank's exposures to operational risk -

(i) shall obtain the prior written approval of and comply with such conditions as may be specified by the Bank.

These conditions may include a period of initial monitoring by the Bank before the bank is allowed onto this approach for calculating capital charges in respect of operational risk;

(ii) as a minimum, shall comply with the relevant qualifying criteria specified in paragraph 23 below;

(iii) shall divide its activities into the designated eight business lines specified in Table 8 below;

(iv) shall calculate its capital requirements in accordance with the relevant provisions specified in paragraph 22.2 below.

20. Basic indicator approach

20.1 A bank that is permitted to use the basic indicator approach shall subject to this paragraph at the end of each calendar quarter end date, determine the gross income for the three year period (last three years) ending on the calendar quarter end date by:

(a) aggregating the gross income recognized by the bank in the calendar quarter ending on the calendar quarter end date and in each of the immediately preceding 3 calendar quarters ("first year");

(b) aggregating the gross income recognized by the bank in the four calendar quarters preceding the first year ("second year");

(c) aggregating the gross income recognized in the 4 calendar quarters immediately preceding the second year ("third year");

(d) multiplying the gross income for the bank for the last three years, by a capital charge factor of 15 per cent (denoted alpha), provided that:

(i) when the annual gross income for a particular year was negative or equal to zero, the bank shall exclude the relevant amount for that particular year from the numerator and exclude the given year(s) in the denominator during which gross income was negative, when the bank calculates the relevant average amount of gross income;

(ii) a newly established bank that does not have the required gross income data to calculate the required gross income figures may with the prior written approval of and subject to such conditions as may be specified by the Bank, use gross income projections for all or part of the three year period. These projections shall be reasonable in relation to the expected risk profile of such a bank.

20.2 **Formula BIA:** Calculation of capital charge for operational risk under basic indicator approach

$$K_{BIA} = [\sum GI_{1...n} \times \alpha] / n$$

where:

KBIA = the capital charge under the basic indicator approach for calculating operational risk;

GI = gross income, where positive, of the last 3 years;

n = number of the last three years for which gross income is positive; and

α = 15%

21. Standardised approach

(a) The measurement methodology in the paragraphs below outlines the calculation of operational risk capital charges and risk sensitivity under the TSA. This approach consists of measuring risk in the standardised manner, using the methodology in the calculation set out below.

(b) In the TSA, a bank's activities are required to be divided into eight business lines: corporate finance, trading and sales, retail banking, commercial banking, payment and settlement, agency services, asset management, and retail brokerage. This mapping process of business lines are defined in more detail in the attached Schedule No. 1 - Principles for mapping of standardised business lines.

(c) Within each business line, gross income is the indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of the eight (8) business lines.

It should be noted that in the prescribed TSA, gross income shall be measured for each business line, and not the whole bank, i.e. in corporate finance, the indicator is the gross income generated in the corporate finance business line.

22. Calculation of capital charges for operational risk under the TSA

All banks shall, at the end of each quarter, determine the capital charge for each standardised business line for the three years ("last 3 years") ending on the relevant quarter by -

(a) aggregating -

(i) the gross income recognized by the bank in respect of each of the standardised business lines in the calendar quarter ending on the calendar quarter end date; and

(ii) the gross income recognised by the bank in respect of each of the standardised business lines in each of the preceding 3 calendar quarters ("first year")

(b) aggregating the gross income recognized by the bank in respect of each of standardised business lines in the 4 calendar quarters immediately preceding the first year ("second year");

(c) aggregating the gross income recognized by the bank in respect of each of the standardised business lines in the 4 calendar quarters immediately preceding the second year ("third year"); and

(d) multiplying the gross income of the bank for each standardised business line in each of the first, second and third years calculated in sub paragraphs (a), (b) and (c) above by a capital charge factor (denoted beta value) assigned to each individual business line set out in Table 8 below.

Table 8: Capital charge factors applicable to standardised business lines

Standardised business lines	Consisting of:	Activities which may be included	Capital charge factors
Corporate finance (β1)	Corporate finance	Mergers and acquisitions, underwriting, privatizations, securitization, research, debt (government or high yield), equity, syndications, IPO, secondary private placements	18%
	Municipal/ Government finance		
	Merchant banking		
	Advisory serviced		
Trading and sales (β2)	Sales	Fixed income, equity, foreign exchanges, commodities, credit, funding, own position securities, lending and repurchase/resale agreements, brokerage, debt, prime brokerage	18%
	Market making		
	Proprietary positions		
	Treasury		

Retail banking (β3)	Retail banking	Retail lending and deposits, banking services, trust and estates	12%
	Private banking	Private lending and deposits, banking services, trusts and estates, investment advice	
	Card services	Merchant/commercial/corporate cards, private labels and retail	
Commercial banking (β4)	Commercial banking	Project finance, real estate, export finance, trade finance, factoring, leasing, lending, guarantees, bills of exchange	15%
Payment and settlement (β5)	External clients	Payments and collections, funds transfer, clearing and settlement	18%
Agency services (β6)	Custody	Escrow, depository receipts, securities lending (customers) corporate actions	15%
	Corporate agency	Issuer and paying agency	
	Corporate trust		
Asset management (β7)	Discretionary fund management	Pooled, segregated, retail, institutional, closed, open, private equity	12%
	Non-discretionary fund management	Pooled, segregated, retail, institutional, closed, open, private equity	
Retail brokerage (β8)	Retail brokerage	Execution and full service	12%

22. 1 Banks shall calculate the capital charge for operational risk by -

(a) adding together the eight (8) individual business lines calculated in respect of each of the standardised business lines for each of the last three (3) years; and

(b) aggregating the capital charges calculated for the last three years and obtaining the mean average of the aggregate capital charges for the last three years by dividing the such figure by three (3).

22. 2 Banks shall, for the purposes of calculating the capital charge for operational risk, use the formula below.

Formula TSA: Calculation of capital charge for operational risk under standardised approach

$$K\ TSA = \{(\sum_{years\ 1-3} \max[\sum(GI_{1-8} \times \beta_{1-8})]\} / 3$$

Where:

K_{TSA} = represents the capital charge under the standardised approach for operational risk;

GI_{1-8} = the gross income for each of the standardised business lines for each of the last three years; and

β_{1-8} = the capital charge factor assigned to each of the standardised business lines as specified in table 1.

22. 3 Banks using the formula for operational risk capital charges under the TSA -

(a) may, in any given year of the last 3 years, off-set a positive capital charge for any standardised business line in the given year with a negative capital charge for any other standardised business line in the given year;

(b) shall not off-set positive or negative capital charges for standardised business lines between any of the last 3 years;

(c) if the aggregate capital charge for all the standardised business lines in any given year of the last three years is negative, banks' shall assign a zero (nil) value to that aggregate capital charge and exclude the given year (s) in which the negative gross income occurred in the denominator when calculating the last 3 years mean average.

23. Qualifying criteria for Standardised Approach

(a) A bank that is in existence for more than three (3) years shall adopt the TSA approach for the measurement of a bank's exposures to operational risk -

(i) as a minimum, shall comply with the relevant qualifying criteria specified below;

(ii) shall divide its activities into the designated eight business lines specified in Table 8 above;

(iii) shall calculate its capital requirements in accordance with the relevant provisions specified above.

(b) When a bank is unable to comply with the qualifying criteria specified for the TSA approach in order to measure the bank's exposure to operational risk, a bank may with the prior written approval of the Bank apply a different measurement (i.e. basic indicator approach) on exposures to operational risk, subject to such conditions as the Bank may specify.

(c) A newly established bank that wishes to adopt the TSA approach for the measurement of a bank's exposures to operational risk -

(i) shall obtain the prior written approval of and comply with such conditions as may be specified by the Bank. These conditions may include a period of initial monitoring by the Bank before the bank will be allowed onto this approach for calculating capital charges in respect of operational risk;

(ii) as a minimum, shall comply with the relevant qualifying criteria specified below;

(iii) shall divide its activities into the designated eight business lines specified in Table 8 above;

(iv) shall calculate its capital requirements in accordance with the relevant provisions as specified above.

(d) Qualifying criteria

(i) As a minimum, a bank that wishes to adopt the standardised approach for the measurement of the bank's exposure to operational risk shall demonstrated to the satisfaction of the Bank -

(A) that the bank's board of directors and senior management, as appropriate, are actively involved in the oversight of the operational risk management framework;

(B) that the bank's operational risk management system that is conceptually sound and is implemented with integrity;

(C) that the bank has sufficient resources in the use of the standardised approach in the major business lines as well as the bank's control and audit areas; and

(D) that the bank has in place adequate policies and documented criteria to map its gross income into the designated business lines indicated in Table 8 above, in accordance with the principles specified in schedule 1 below.

(ii) As a minimum, in addition to the requirements specified in subparagraph (i) above, a bank with internationally active branches or subsidiaries that wishes to adopt the standardised approach for the measurement of the banks exposures to operational risk -

(A) shall have in place an adequate operational risk management system with clear responsibilities being assigned to an operational risk management function. This function shall among others be responsible for -

(i) the development of strategies to identify, assess, monitor and control/mitigate the bank's exposures to operational risk;

(ii) the development of comprehensive policies and procedures relating to operational risk management and controls, including policies to address areas of non-compliance;

(iii) the design and implementation of a methodology to comprehensively assess the bank's exposure to operational risk;

(iv) the design and implementation of the risk reporting system in respect of operational risk;

(v) the development and implementation of techniques to create incentives to improve the management and control of operational risk throughout the bank.

(B) shall as part of the bank's internal operational risk management system track relevant operational risk data, including material losses by business lines -

(i) which operational risk assessment system -

(aa) shall closely be integrated with the risk management processes of the bank; and

(bb) shall be subject to regular validation and independent review;

(ii) the output of which shall form an integral part of the process to monitor and control the bank's operational risk profile, including any risk reporting, management reporting and risk analysis;

(C) shall on a regular basis report to the relevant management of the banks business units, the senior management of the bank and the board of directors on its exposures to operational risk, including material losses in respect of operational risk;

(D) shall duly document the bank's operational risk management systems;

(E) shall have in place -

(i) procedures to take appropriate action based on information contained in the reports submitted to the management of the bank's business units, the senior management of the bank and the board of director;

(ii) a robust process to ensure compliance with the banks documented set of internal policies, controls and procedures concerning the operational risk management system;

(iii) policies that comprehensively deal with the manner in which any area or matter of non-compliance will be dealt with;

(F) shall ensure that the bank's operational risk management process is subject to regular independent review.

24. Method for calculating the risk weighted amount for operational risk

In order to calculate a composite ratio and to ensure consistency in the calculation of capital charges for operational risk, an explicit arithmetic link is created by multiplying the capital charge for operational risk as per paragraph 22.2 above by 10 (i.e. reciprocal of minimum capital ratio of 10%). This is done in order to calibrate the risk weighted amount for operational risk. The resulting risk weighted figure shall be added to the sum of risk-weighted assets compiled for both credit and market risk purposes.

The capital adequacy ratio will then be calculated in relation to the sum of the three risk areas (i.e. credit, market and operational risk) using as a numerator only eligible capital.

25. Exceptions - provisions applicable where banks have difficulties with the TSA to operational risk.

(a) Where a bank -

(i) has been in operation for less than 18 months in any calendar quarter end date subsequent to the date on which this determination comes into operation;

(ii) is undergoing a merger, acquisition or major restructuring.

Then the bank -

(iii) shall not adopt the TSA to calculate operational risk, except with the prior written approval of the Bank;

(iv) may, with the prior written approval of the Bank adopt an alternative to the TSA (i.e. the basic indicator approach).

(b) Where a bank has recorded negative gross income for the last 3 years immediately preceding that date, it will be subject to remedial measures to be determined by the Bank.

26. Risk management framework for operational risk

All banks are required to have in place a comprehensive risk management framework for operational risk in accordance with the provisions of this determination, which shall be mandatory. The Standard Operational Guideline[3] sets out a number of qualitative requirements for managing operational risk which all banks are required to meet as a minimum.

PART VI: MARKET RISK

27. Capital measures for market risk:

Capital requirements for market risk apply on a solo and consolidated basis in the same way as for credit and operational risks. The Bank may permit banking groups assessed on a consolidated basis to report the long and short positions in exactly the same instrument (e.g. currencies, commodities and bonds), on a net basis, no matter where they are booked. The off-setting rules as set out under Appendix 1 of this determination may also be applied on a consolidated basis. The measurement allowed for market risk is the standard model approach. The standard model approach is the measure of risk obtained in each asset class (as defined in Appendix 2 - 7).

In order to calculate a composite ratio and to ensure consistency in the calculation of capital charges for market risk, an explicit arithmetic link is created by multiplying the overall capital charge for market risk in the statutory return by 10 (i.e. reciprocal of minimum capital ratio of 10%). This is done in order to calibrate the risk weighted amount for market risk. The resulting risk weighted figure shall be added to the sum of risk-weighted assets compiled for both credit and operational risk purposes.

[3] Refer to Sound Practices for the Management and Supervision of Operational Risk, February 2003, available at www.bis.org

28. Standardised Approach

28.1 This approach measures risk in a standardised manner, using the methods in the calculation set forth in appendices listed in the Table 9 below. The capital charges for each of the different risk categories in Table 9 are then summed arithmetically.

Table 9: Methods of calculations

Risk category	Scope of Application	Relevant Appendices
Interest rate risk (General and specific risk)	Trading book	Appendix 1, net positions Appendix 2, interest rate risk
Equities position risk	Trading book	Appendix 1, net positions Appendix 3, equity position risk
Foreign exchange risk	All transactions, whether trading book or not	Appendix 4
Commodities risk	All transactions, whether trading book or not	Appendix 5
Option risk	Option associated with each of the preceding risk categories	Appendix 6
Credit derivatives	Treatment of credit derivatives in the trading book	Appendix 7

29. Limits to be observed

29.1 Limit on "overall" foreign exchange exposures - The overall foreign exchange risk exposure (short and long currency positions) both on- and off-balance sheet, as measured using spot mid-rate and the shorthand method shall not exceed 20% of a bank's capital funds.

29.2 Limit on "single" currency foreign exchange risk exposure - The foreign exchange risk exposure in major currencies such as USD, GBP, and EUR, irrespective of short or long position, shall not exceed 10% of a bank's capital funds. For all other currencies the limit shall not be more than 5% of the bank's capital funds, irrespective of short or long position.

29.3 Limit on "intra day" foreign exchange risk exposure - The intra day foreign exchange risk exposures, both in single currencies and overall, shall be monitored and maintained within prudent limits as established by a bank's board of directors in a written policy covering foreign exchange risk exposure.

29.4 Consolidated limits - The single currency and overall foreign exchange risk exposure limits indicated above shall apply on a consolidated basis, i.e. a bank may have different internal limits for its various branches; however, the limits set forth in this determination apply on a consolidated basis to the bank as a single, consolidated entity.

Appendix 1

Calculating Net Positions

1. Principles

The net position is the long balance (or net long position) or short balance or (net short position) of the transaction recorded by a bank in each of the securities in its trading book.

When calculating the net positions, banks may fully off-set it's long and short positions (both actual and notional) in identical financial instruments. Financial instruments are regarded as identical provided that they are:

(i) Launched by the same issuer;
(ii) Denominated in the same currency;
(iii) Loans to and debts from the same debtor with the same maturity;
(iv) Traded in the same national market; and
(v) The same rank in case of insolvency.

Net positions are convertible into the reporting currency used to complete the market risk returns, at the spot exchange rate ruling on the reporting date.

2. Calculation of capital charges for derivatives

(a) Allowable off-setting of matched positions

A matched position in a future or forward contract and its corresponding underlying may also be fully offset[4], and thus excluded from the calculation. When the future or the forward contract comprises a range of deliverable instruments offsetting of positions in the future or forward contract and its underlying is only permissible in cases where there is a readily identifiable underlying security which is most profitable for the trader with a short position to deliver. The price of this security, sometimes called the "cheapest-to-deliver", and the price of the future or forward contract shall in such cases move in close alignment. No offsetting will be allowed between positions in different currencies[5]; 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.

In addition, opposite positions in the same category of instruments[6] can in certain circumstances be regarded as matched and allowed to offset fully.

To qualify for this treatment the positions must relate to the same underlying instruments, be of the same nominal value and be denominated in the same currency[7].

An additional netting method whereby bank may treat as fully off-setting any position in interest rate derivatives such as the general position risk of debt instruments (e.g. separate legs of cross currency swap, forward rate agreements (FRA), currency options, money market transactions, caps, floors, swaptions, etc.), which at a minimum satisfy the following conditions:

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[4]. For instruments where the apparent notional amount differs from the effective notional amount, banking institutions must use the effective notional amount.
[5]. The South African Rand and Namibia Dollar will be treated as same currency.
[6]. This includes the delta-equivalent value of options. The delta equivalent of the legs arising out of the treatment of caps and floors as set out in Appendix 6 can also be off-set against each other under the rules laid down in this paragraph.
[7]. The separate legs of different swaps may also be "matched" subject to the same conditions.

(i) *For futures:* The positions have the same nominal value and are denominated in the same currency and relate to the same underlying and mature within seven days of each other;

(ii) *For swaps and FRAs:* The reference interest rates for floating instruments (positions) must be identical and the differential between coupons for fixed-rate positions is no greater than 15 basis points at the most;

(iii) *For swaps, FRAs and forwards:* The upcoming interest-rate fixing date for floating rate instruments or, for fixed-rate instruments, residual maturity corresponds to the following limits:

– Less than one month: same day;
– Between one month and one year: within seven days;
– Over one year: within thirty days.

Banks with large swap books may use alternative formulae for these swaps to calculate the positions to be included in the maturity or duration ladder. One method would be to first convert the payments required by the swap into their present values. For that purpose, each payment shall be discounted using zero coupon yields, and a single net figure for the present value of the cash flows entered into the appropriate time-band using procedures that apply to zero (or low) coupon bonds; these figures shall be slotted into the general market risk framework as set out in Appendix 2. An alternative method would be to calculate the sensitivity of the net present value implied by the change in yield used in the maturity or duration method and allocate these sensitivities into the time-bands set out in Table 11 or Table 13. Other methods which produce similar results could also be used. Such alternative treatments will, however, only be allowed if:

a. The Bank is fully satisfied with the accuracy of the systems being used;

b. The positions calculated fully reflect the sensitivity of the cash flows to interest rate changes and are entered into the appropriate time-bands;

This includes the delta-equivalent value of options. The delta equivalent of the legs arising out of the treatment of caps and floors as set out in Appendix 6 can also be offset against each other under the rules laid down in this paragraph. The separate legs of different swaps may also be "matched" subject to the same conditions.

c. The positions are denominated in the same currency.

(b) Specific risk

Interest rate and currency swaps, FRAs, forward foreign exchange contracts and interest rate futures will not be subject to a specific risk charge. This exemption also applies to futures on an interest rate index (e.g. LIBOR). However, in the case of futures contracts where the underlying is a 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 as set out Appendix 2.

(c) General market risk

General market risk applies to positions in all derivative products in the same manner as for cash positions, subject only to an exemption for fully or very closely matched positions in identical instruments as defined in the paragraphs above. The various categories of instruments shall be slotted into the maturity ladder and treated according to the rules identified in the Appendices below.

Appendix 2

Interest Rate Risk

This section describes the standard framework for measuring the risk of holding or taking positions in debt securities and other interest related instruments in the trading book.

1. Specific Risk

The capital requirement for specific interest rate risk is intended to protect the bank against unfavourable movements in the price of a security owing to the deterioration in the credit quality of the individual issuer. In measuring the risk, off-setting will be restricted to matched positions in the identical issue (including positions in derivatives). Even if the issuer is the same, no off-setting will be permitted between different issues since the differences in coupon rate, liquidity, call features, etc. mean that prices may diverge in the short-run.

1.1 Specific risk capital charges for securities denominated in domestic currency

The specific risk capital charges are graduated in five broad categories as follows.

Government (All instruments issued by Government or instruments guaranteed by central Government)	0.00%
Qualifying Items (All loan stock listed on Bond Market Exchange, or any other financial exchange listed loan stock approved by NAMFISA[8])	0.25% (residual term to final maturity 6 months or less)
	1.00% (residual term to final maturity between 6 and 24 months)
	1.60% (residual term to final maturity exceeding 24 months)
Other	8.00%

1.2 Specific risk capital charges for securities denominated in foreign currency

The specific risk capital charges for securities denominated in foreign currency are graduated as follows.

Table 10: Specific risk capital charges

Categories	External credit assessment	Specific risk capital charge
Government	AAA to AA-	0%
	A+ to BBB-	0.25% (residual term to final maturity 6 months or less)
		1.00% (residual term to final maturity greater than 6 months and up to and including 24 months)
		1.60% (residual term to final maturity exceeding 24 months)

[8]. Namibia Financial Institutions Supervisory Authority

	BB+ to B- Below B- Unrated	8.00% 12.00% 8.00%
Qualifying		0.25% (residual term to final maturity 6 months or less) 1.00% (residual term to final maturity greater than 6 months and up to and including 24 months) 1.60% (residual term to final maturity exceeding 24 months)
Other	Similar to credit risk charges under Standardised Approach of Basel II Framework, e.g.	
	BB+ to BB- Below BB- Unrated	8.00% 12.00% 8.00%

The category "Government" will include all forms of government paper including bonds, Treasury bills and other short-term instruments. For securities denominated in a currency other than that of the issuing government (i.e. issued by foreign governments), all banking institutions need to apply the specified risk-weights based on external credit assessment ratings.

The category "Qualifying" in both tables above includes securities issued by public sector entities and multilateral development banks, plus other securities that are:

a. Rated investment grade by at least two credit rating agencies as *determined* by the Bank (e.g. Baa or higher by Moody's and BBB or higher by Standard and Poor's); or

b. Rated investment grade by one rating agency and not less than investment grade by another rating agency as determined by the Bank (subject to supervisory oversight); or

c. Subject to supervisory approval, unrated, but deemed to be of comparable investment quality by the reporting banking institution and issuer has securities listed on a stock exchange.

The category "other" will receive the same specific risk charge as a private sector borrower under the credit risk requirements, i.e. 8% or risk weighted 100%.

1.3 Items for which there are no capital charges related to specific risk

There are no capital requirements relating to specific risk of the following items:

- Items deducted from capital above; and

- The following items:

  - temporary sales of securities and forward exchange-rate transactions, when they are carried out with the objective of benefiting from favourable movements in interest rates, or when they hedge another item in the trading book;

  - other funding transactions, when they hedge another item in the trading book.

2. General Risk

The capital requirement for general interest rate risk is intended to protect the bank against the risk of losses resulting from unfavourable movements in market interest rates. Banks may choose between two principal methods for calculating general risk:

- Maturity method using Table 11
- Duration method using Table 13

The steps for each method are as follows:

2.1 For each currency, calculate the capital requirement for the net position defined in Appendix 1. In brief the Maturity Method is calculated in the following manner, the detailed calculations and methodologies are set out in section 2.2.1 below.

2.1.1 First calculate the long and short position in each instrument and each issuer.

2.1.2 Slot long and short positions into the appropriate time bands set out in column 2 of table 11 below, according to their residual maturity (maturity method) in the case of fixed-rate instruments and on the basis of the period until the interest rate is next set in the case of instruments in respect of which the interest rates are variable before final maturity or modified duration (duration method),

2.1.3 Multiply each of these positions by the risk weighting for the maturity time band as set out in column 4 of table 11 below. This means, weighting the position in each time band by a factor designed to reflect the price sensitivity of these positions to overall changes in interest rates. It should be noted that, zero coupon bonds and deep - discounted bonds (defined as bonds with a coupon of less than 3%) shall be slotted into the time bands set out in the second column of table 11.

2.1.4 The aggregate (sum) of the weighted long positions and aggregate (sum) of the weighted short positions in each time band shall then be calculated to produce a gross position figure. The aggregate of the former that are matched by the latter in a given maturity band shall be the matched weighted position, while the residual long and short position shall be the unmatched weighted position for the same time band.

2.1.5 The total matched weighted position and total unmatched weighted positions in each time band ("vertical disallowances") shall then be calculated.

2.1.6 Banks will be allowed to conduct "horizontal off-setting" within each of three zones, which will result in a single short or long position for each time band.

2.1.7 Subsequently, banking institutions will be allowed to conduct "horizontal off-setting" between zones.

2.1.8 Calculation of capital requirements.

2.2 For each currency, calculate the additional capital requirement for option risk using the methods of Appendix 5

2.2.1. Maturity Method

Step 1 - Calculation of weighted positions

The bank slots in the long and short position in each security or instrument, into the appropriate maturity bands in the following table:

Table 11: **Maturity Method: Time-bands and weights**

ZONE	Maturity Bands		Risk Weight (%)	Assumed changes in yield (interest rate)
	Coupon 3% or more	Coupon less than 3%		
(1)	(2)	(3)	(4)	(5)
One	0 - 1 month	0 - 1 month	0.00%	1.00
	> 1 - 3 months	> 1 - 3 months	0.20%	1.00
	> 3 - 6 months	> 3 - 6 months	0.40%	1.00
	> 6 - 12 months	> 6 - 12 months	0.70%	1.00
Two	> 1 - 2 years	> 1 - 1.9 years	1.25%	0.90
	> 2 - 3 years	> 1.9 - 2.8 years	1.75%	0.80
	> 3 - 4 years	> 2.8 - 3.6 years	2.25%	0.75
Three	> 4 - 5 years	> 3.6 - 4.3 years	2.75%	0.75
	> 5 - 7 years	> 4.3 - 5.7 years	3.25%	0.70
	> 7 - 10 years	> 5.7 - 7.3 years	3.75%	0.65
	> 10 - 15 years	> 7.3 - 9.3 years	4.50%	0.60
	> 15 - 20 years	> 9.3 - 10.6 years	5.25%	0.60
	> 20 years	> 10.6 - 12 years	6.00%	0.60
		> 12 - 20 years	8.00%	0.60
		> 20 years	12.50%	0.60

Note 1: Fixed-rate securities are slotted into maturity bands on the basis of their residual maturity; other instruments are slotted on the basis of the time remaining until the next interest-rate fixing. A distinction is also drawn between instruments with a coupon of 3% or more and instruments with a coupon of less than 3% (see table above).

Note 2: Each position is then multiplied by the weight indicated in column (4) for the corresponding maturity band.

Step 2 - Allowance for off-setting of positions

Within maturity bands: Weighted short positions and weighted long positions are off-set to determine the matched weighted position, resulting in a single time band and are called vertical disallowance. The short and long balance represents the unmatched weighted position for that time band.

Within zones: The bank calculates the sum of the unmatched weighted long positions in the time bands in each zone to obtain the unmatched weighted long position for that zone. Similarly, the unmatched weighted short positions of the time bands in each zone are summed to obtain the unmatched weighted short position for that zone and are called horizontal disallowance.

The portion of the unmatched weighted long position in a given zone which can be offset against the unmatched weighted short position in the same zone is the matched weighted position for that zone. The portion of the unmatched weighted long or short position that cannot be offset in this fashion (the long or short balance) is the unmatched weighted position for that zone.

Between zones:

(i) The bank calculates the amount of the unmatched weighted long (or short) position for zone 1 which can be offset against the unmatched weighted short (or long) position for zone 2. This yields the matched weighted position between zones 1 and 2.

A similar calculation is carried out on the residual unmatched weighted position in zone 2 and the unmatched weighted position in zone 3, to yield the matched weighted position between zones 2 and 3.

(ii) The order of offsetting between zones may be reversed, in which case the matched weighted position between zones 2 and 3 is calculated first and the matched weighted position between the residual matched weighted position in zone 2 and the unmatched weighted position in zone 1 is calculated second.

(iii) The residual unmatched weighted position in zone 1 is then offset against the residual unmatched weighted position in zone 3 to yield the matched weighted position between zones 1 and 3.

(iv) This process of offsetting between zones yields the final residual unmatched weighted positions (final positions).

The off-setting will be subject to a scale of disallowance expressed as a fraction of the matched positions as set out in Table 12 below. The weighted long and short positions in each of three zones may be off-set, subject to the matched portion attracting a disallowance factor that is part of the capital charge.

Table 12: **Horizontal Disallowance**

<table>
<tr><th>Zone</th><th>Time-bands</th><th>Within the zone</th><th>Between adjacent zones</th><th>Between zones 1 and 3</th></tr>
<tr><td rowspan="4">One</td><td>0 - 1 month</td><td rowspan="4">40%</td><td rowspan="9">40%</td><td rowspan="12">100%</td></tr>
<tr><td>> 1 - 3 months</td></tr>
<tr><td>> 3 - 6 months</td></tr>
<tr><td>> 6 - 12 months</td></tr>
<tr><td rowspan="3">Two</td><td>> 1 - 2 years</td><td rowspan="3">30%</td></tr>
<tr><td>> 2 - 3 years</td></tr>
<tr><td>> 3 - 4 years</td></tr>
<tr><td rowspan="6">Three</td><td>> 4 - 5 years</td><td rowspan="6">30%</td><td rowspan="6">40%</td></tr>
<tr><td>> 5 - 7 years</td></tr>
<tr><td>> 7 - 10 years</td></tr>
<tr><td>> 10 - 15 years</td></tr>
<tr><td>> 15 - 20 years</td></tr>
<tr><td>> 20 years</td></tr>
</table>

Step 3 - Calculating the capital requirements

The bank's capital requirement for the trading book shall then be calculated and be equal to the sum of the vertical and horizontal disallowances:

- 10% of the sum of the matched weighted positions in all of the maturity bands, represent the capital charge for the vertical disallowances;

The following items represent the capital charge for the horizontal disallowances:

- 40% of the matched weighted position in zone one maturity band;
- 30% of the matched weighted position in zone two maturity band;

- 30% of the matched weighted position in zone three maturity band;
- 40% of the matched weighted position between zones one and two, and between zones two and three maturity band;
- 100% of the matched weighted position between zones one and three maturity band, and

The following item represents the capital charge for the overall net position:

- 100% of residual unmatched weighted positions or final position.

2.2.2. Duration Method

Banks with the necessary means and capabilities to use this method continuously may with the *prior written approval of the Bank*, use this method in measuring all of their general market risk by calculating the price sensitivity of each position separately.

This method consist in calculating the modified duration of each debt security, then slotting the positions (weighted by their duration and by an assumed interest-rate change) into time bands, and finally off-setting weighted positions within the time bands, within zones and between different zones. The capital requirement is then calculated.

The mechanics of this method are as follows:

Step 1 - Calculation of Modified Duration

The bank shall ascertain the market value of each fixed-rate debt security and calculate the yield to maturity, which is the implicit discount rate for that security. In the case of variable-rate instruments, the bank shall take the market value of each instrument and calculate the yield on the assumption that the principal is due on the date on which the interest rate can be changed.

Bank shall then calculate the modified duration of each debt instrument using the following formula -

Modified duration = $\dfrac{duration(D)}{(1+r)}$

Where:

$$D = \sum_{t=1}^{M} \frac{C_t}{(1+r)^t}$$

Where:

r = yield to maturity (see step 1 above);

C_t = cash payment in time ();

M = total maturity (see step 1 above)

Step 2 - Calculation of Weighted Position

- Each debt security is then slotted into one of the time bands in the duration-based ladder with the fifteen time bands set out in Table 3 below, based on its modified duration;

Table 13: **Time - bands and assumed changes in yield**

ZONE	Modified duration (in months or years)	Assumed changes in yield (interest rate) in percentage
(1)	(2)	(3)
One	0 - 1 month	1.00
	> 1 - 3 months	1.00
	> 3 - 6 months	1.00
	> 6 - 12 months	1.00
Two	> 1 - 1.9 years	0.90
	> 1.9 - 2.8 years	0.80
	> 2.8 - 3.6 years	0.75
Three	> 3.6 - 4.3 years	0.75
	> 4.3 - 5.7 years	0.70
	> 5.7 - 7.3 years	0.65
	> 7.3 - 9.3 years	0.60
	> 9.3 - 10.6 years	0.60
	> 10.6 - 12 years	0.60
	> 12 - 20 years	0.60
	> 20 years	0.60

- A bank shall then calculate in each time band the duration-weighted position for each instrument by multiplying the market price (value) by its modified duration and by the assumed interest rate (yield) change for an instrument with that particular modified duration.

Step 3 - Allowances for off-setting of positions

- The same method outlined for the maturity method is applied to the preceding table to obtain the matched weighted position and unmatched weighted positions in each time band, each zone and between zones.

Step 4 - Calculation of the capital requirements

A bank's capital requirements for the trading book shall be calculated as the sum of vertical and horizontal disallowances:

- 5% of the sum of the matched duration-weighted positions in all of the time bands represent the capital charge for the vertical disallowances;

The following items represent the capital charge for the horizontal disallowances:

- 40% of the matched duration-weighted position in zone one maturity band;

- 30% of the matched duration-weighted position in zone two maturity band;

- 30% of the matched duration-weighted position in zone three maturity band;

- 40% of the matched duration-weighted position between zones one and two, and between zones two and three maturity band;

- 100% of the matched duration-weighted position between zones one and three maturity band, and

The following item represents the capital charge for the overall net position:

- 100% of residual unmatched duration-weighted positions or final position.

3. Interest rate derivatives

The measurement system shall include all interest rate derivatives and off-balance-sheet instruments in the trading book which react to changes in interest rates, (e.g. forward rate agreements (FRAs), other forward contracts, bond futures, interest rate and cross-currency swaps and forward foreign exchange positions). Options can be treated in a variety of ways as described in Appendix 6. A summary of the rules for dealing with interest rate derivatives is set out in Table 14 below.

Table 14: **Summary of treatment of interest rate derivatives**

Instruments	Specific risk charge	General market risk charge
Exchange - traded future		
- Government debt security	No	Yes, as two positions
- Corporate debt security	Yes	Yes, as two positions
- Index on interest rates (e.g. LIBOR)	No	Yes, as two positions
OTC forward		
- Government debt security	No	Yes, as two positions
- Corporate debt security	Yes	Yes, as two positions
- Index on interest rates (e.g. LIBOR)	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
- Government debt security	No	(a) Carve out together with the associated hedging positions simplified approach scenario analysis
- Corporate debt security	Yes	(b) General market risk charge according to the delta-plus method (gamma and vega shall receive separate capital charges)
- Index on interest rates (e.g. LIBOR)	No	
- FRAs, Swaps	No	

Appendix 3

Equity - Position Risk

This section sets out minimum capital standards to cover the risk of positions in equities in the trading book. It applies to long and short positions in all instruments that exhibit market behaviour similar to equities. 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. Non-convertible preference shares are to be excluded from these calculations (they are covered by the interest rate risk requirements described in Appendix 2). Long and short positions in instruments relating to the same issuer may be reported on a net basis. The treatment of derivative products, share indices and index arbitrage is described in section 5 below.

As with debt securities, the minimum capital standard for equities is expressed in terms of two separately calculated charges for the "specific risk" of holding a long or short position in an individual equity and for the "general market risk" of holding a long or short position in the market as a whole.

1. General Market Risk

To determine the risk base, the banking institution calculates the sum of its net long positions and the sum of its net short positions in each equity security (in accordance with the methods described in Appendix 1). The difference between these two amounts represents the overall gross position. The long or short position in the market must be calculated on a market-by-market basis, i.e. a separate calculation has to be carried out for each national market in which the bank holds equities.

The capital charge for general market risk is the sum of the overall net positions (by national market) multiplied by 8%. Again, a separate capital charge calculation must be carried out for each national market in which a banking institution holds equities.

2. Specific Risk

Specific risk is defined as a proportion of the bank's gross equity positions (i.e. the sum of the absolute value of all long equity positions and of all short equity positions).

For positions in equity securities, the capital charge for specific risk will be 10%, unless the portfolio is both liquid and part of a well diversified portfolio, in which case banks may apply a reduced charge of 5%. A portfolio of liquid entities will be regarded as well diversified provided the following conditions are satisfied:

(i) No individual equity position comprises more than 10% of the market value of the bank's portfolio of equities traded on the market in each particular country ("country portfolio").

(ii) The sum of the total market value of equity positions which individually comprise between 5% and 10% of the total market value of the country portfolio does not exceed 50% of the total market value of the bank's portfolio in that country.

Individual equities included in the indices listed in Table 15 below are considered to be liquid (this list may be amended periodically).

Table 15: **List of Market Indices**

The stocks making up the following indexes are internationally considered sufficiently liquid:

CAC 40 (France)	AEX 25 (Netherlands)
STI (Singapore)	ASX 100 (Australia)

JSE TOP 20 (South Africa)	DAX (Germany)
Nikkei 225 (Japan)	FTSE 100 (Great Britain)
SP 100 (United States)	TSE 35 (Canada)

A capital charge of 2% is applied to positions on broadly diversified stock market indexes which are traded on a regulated or recognised market. Positions on sectoral indexes or on insufficiently diversified indexes are assigned a coefficient of 4%. When the bank takes opposite positions on the same index for different dates or on different exchanges, the 2% requirement applies only to one position, the opposing position being exempted. The capital requirement for specific risk is equal to the sum of the positions weighted by their capital charges.

3. Equity derivatives

Except for options, which are dealt with in Appendix 6, equity derivatives and off-balance sheet positions which are affected by changes in equity prices shall be included in the measurement system. This includes futures and swaps on both individual equities and on stock indices. The derivatives are to be converted into notional positions in the relevant underlying. The treatment of equity derivatives is summarised in Table 16 below.

Table 16: **Summary of treatment of equity derivatives**

Instruments	Specific risk charge	General market risk charge
Exchange - traded future or OTC futures		
Individual equity	Yes	Yes, as underlying
Index	2%	Yes, as underlying
Options (refer to Appendix 6)		Either
Individual equity	Yes	(a) Carve out together with the associated hedging position) - Simplified approach - Scenario analysis or (b) General market risk charge according to the delta-plus method (gamma and vega shall each receive a separate capital charge) Rho may be included with other interest rate exposures and described in Appendix 1.
Index	2%	

4. Calculation of positions

In order to calculate the standard method for specific and general market risk, positions in derivatives shall be converted into notional equity positions:

a) futures and forward contracts relating to individual equities shall be reported at current market prices;

b) futures relating to stock indices shall be reported as the marked-to-market value of the notional underlying equity portfolio;

c) equity swaps are to be treated as two notional positions; and

d) equity options and stock index options shall be either "carved out" together with the associated underlyings (that is, the options and their associated hedges are excluded from the calculations performed for all other equity positions and a separate risk charge is obtained using the simplified approach or scenario analysis method set out in Appendix 6) or be incorporated in the measurement of specific and general market risk described in this section according to the delta-plus method (refer to Appendix 6).

5. Calculation of capital charges

(a) Measurement of specific and general market risk

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 in a given equity may be offset against an opposite physical position in the same equity.

(b) Risk in relation to an index

Besides general market risk, a specific risk capital charge of 2% will apply to the long or short position in an index contract listed in Table 15 above. Positions in indices not listed in Table 15 must either be decomposed into their component shares, or be treated as a single position based on the sum of current market values of the underlying instruments; if treated as a single position, the specific risk requirement is the highest specific risk charge which would apply to any of the index's constituent shares.

(c) Arbitrage

In the case of the futures-related arbitrage strategies described below, the additional 2% capital charge described above may be applied to only one index with the opposite position exempt from a capital charge (both the specific and general risk capital charges).

The strategies are:

(i) when the bank takes an opposite position in exactly the same index at different dates or in different market centres; or

(ii) when the bank has an opposite position in contracts at the same date in different but similar indices, subject to the Bank's agreement that the two indices contain sufficient common components to justify offsetting.

Where a bank engages in a deliberate arbitrage strategy, in which a futures contract on a broadly-based index matches a basket of shares, it may decompose the index position into notional positions in each of the constituent stocks and include these notional positions and the disaggregated physical basket in the country portfolio, netting the physical positions against the index equivalent positions in each stock.

Alternatively, on condition that:

a) The trade has been deliberately entered into and separately controlled; and

b) The composition of the basket of shares represents at least 90% of the index when broken down into its notional components or a minimum correlation between the

basket of shares and the index of 0.9 can be clearly established over a minimum period of one year[9].

To determine whether a basket of shares represents at least 90 per cent of the index, the relative weight of each stock in the physical basket shall be compared to the weight of each stock in the index to calculate a percentage slippage from the index weights. For example, where a stock represents 5 per cent of the index, but the holding of that stock in the basket only represents 4.5 per cent of the total basket value, the percentage slippage of that stock is 0.5 per cent. Stocks which comprise the index but which are not held in the physical basket have a slippage equal to their percentage weight in the index. The sum of these differences across each stock in the index represents the total level of slippage from the index. In summing the percentage differences, no netting shall be applied between under market-weight and over market-weight holdings (i.e. the absolute values of the percentage slippages shall be summed). Deducting the total slippage from one hundred gives the percentage coverage of the index; this shall be compared to the required minimum of 90 per cent.

5.1 In such cases as described under (c) above (i.e. where conditions are met) the minimum capital requirement will be 4% (i.e. 2% of the gross value of the positions on each side) to reflect divergence and execution risks. This applies even if all the stocks comprising the index are held in identical proportions. Any excess value of the shares comprising the basket over the value of the futures contract, or excess value of the futures contract over the value of the basket is to be treated as an open long or short position and is dealt with in the paragraph below.

5.2 In the case of an arbitrage that does not satisfy the requirements of paragraph (c) above the index position shall be treated according to paragraph (b) as appropriate. The physical basket of shares shall then be disaggregated into individual positions and included in the country portfolio for calculation of the capital charge.

If a bank takes a position in depository receipts against an opposite position in the underlying equity or the same equity listed in a different country, it may offset the position (i.e. bear no capital charge) but only on condition that any costs on conversion are fully taken into account.

[9]. Banks that wish to rely on the correlation based criteria will need to satisfy the Bank on the accuracy of the method chosen.

Appendix 4

Foreign Exchange Risk

1. Calculating the Overall Net Position

The overall net position in foreign currencies is calculated in two stages.

1.1. Stage one

The bank calculates its net open position in each currency, excluding the Rand[10]. The position is the algebraic sum of the positive and negative items listed below.

1.1.1 Items included

The net open position in each currency shall be calculated by summing:

a. The net spot position (i.e. total assets minus total liabilities, including accrued interest denominated in the currency in question;

b. The net forward position (i.e. all amounts to be received less all amounts to be paid in forward foreign-exchange transactions, including currency futures and the principal on currency swaps not included in the spot position and interest rate transactions such a s futures, swaps etc denominated in foreign currency);

c. Guarantees (and similar instruments) that are certain to be called and are likely to be irrecoverable;

d. The net interest payable or receivable not yet accrued but already fully hedged;

e. At the discretion of the bank and with the prior approval of the Bank, other net future income and expenses fully hedged by forward foreign exchange transactions;

f. Depending on particular accounting conventions in Namibia, any other item representing a profit or loss in foreign currency; and

g. The net delta (or delta-based) equivalent of the total currency-option book. Such positions may be netted against opposite positions in identical currencies. If the delta used is not calculated by a market authority, the calculation method chosen must be communicated in advance to the Bank, which may prohibit its use.

Positions in composite currencies need to be separately reported but, for measuring a bank's open position, may either be treated as a currency in their own right or split into their component parts on a consistent basis.

The net position in a currency is described as a net long position when the assets exceed the liabilities and as a net short position when the liabilities exceed the assets.

Items excluded

i. Transactions whose foreign-exchange risk is borne by the central government;

[10] The South African Rand and Namibia Dollar will be treated as same currency

ii. The Bank may grant a bank's request to exclude long-term structural assets (equity participations in affiliates and subsidiaries, tangible and intangible fixed assets, etc.), which are financed in a currency other than the currency in which they are denominated.

Any change in the terms of exclusion of these categories of transactions requires the prior approval of the Bank (Refer to paragraph 3 (c) below).

1.1.3 Use of present value

Present value may be used to calculate the net open position in each currency, provided that the method used is deemed satisfactory by the Bank, in particular regarding the interest rates used in the discounting calculations.

1.1.4 Treatment of gold positions

The gold position is calculated separately. 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 need to manage it in a similar manner to foreign currencies. Where gold is part of a forward contract (quantity of gold to be received or to be delivered), any interest rate or foreign currency exposure from the other leg of the contract shall be reported as set out in Appendix 2 above.

1.2. Stage Two

The overall net foreign exchange position is calculated for each bank included in the consolidation and, for each bank, balanced in different currencies such that the sum of long positions equals the sum of short positions. The consolidated overall net position is obtained by consolidating the individual positions calculated in this way.

2. Calculating Capital Requirements

Each position is converted to the bank's reporting currency using the spot exchange rate. The equivalent value of the foreign exchange position (the sum of the equivalent values of the long and short positions, excluding gold) gives rise to a capital requirement equal to 10% of the amount of the position. The position in gold also gives rise to a capital requirement equal to 10% of its amount.

3. Treatment of other specified items

(a) Interest, other income and expenses

Interest accrued (i.e. earned but not yet received) shall be included as a position. Accrued expenses shall also be included. Unearned but expected future interest and anticipated expenses may be excluded unless the amounts are certain and banks have taken the opportunity to hedge them. If a bank includes future income/expenses they shall do so on a consistent basis, and shall not be permitted to select only those expected future flows which reduce their position at the reporting date.

(b) Measurement of forward currency and gold positions

Forward currency and gold positions will normally be valued at current spot market exchange rates. Using forward exchange rates would be inappropriate since it would result in the measured positions reflecting current interest rate differentials to some extent. However, banks which base their normal management accounting on net present values are expected to use the net present values of each position, discounted using current interest rates and valued at current spot rates, for measuring their forward currency and gold positions.

(c) The treatment of structural positions

A matched currency position will protect a bank against loss from movements in exchange rates, but will not necessarily protect its capital adequacy ratio. If a bank has its capital denominated in its domestic currency (Namibian Dollar) and has a portfolio of foreign currency assets and liabilities that is completely matched, its capital/asset ratio will fall if the domestic currency depreciates. By running a short position in the domestic currency the bank can protect its capital adequacy ratio, although the position would lead to a loss if the domestic currency were to appreciate.

The Bank shall allow banks to protect their capital adequacy ratio in this way. Thus, any positions which a bank has deliberately taken in order to hedge partially or totally against the adverse effect of the exchange rate on its capital ratio may be excluded from the calculation of net open currency positions, subject to each of the following conditions being met:

i. such positions need to be of a "structural", i.e. of a non-dealing, nature (the precise definition shall be set by the Bank;

ii. the Bank needs to be satisfied that the "structural" position excluded does no more than protect the banking institution's capital adequacy ratio;

iii. any exclusion of the position needs to be applied consistently, with the treatment of the hedge remaining the same for the life of the assets or other items.

No capital charge need be applied to positions related to items that are deducted from a bank's capital when calculating its capital base, such as investments in non-consolidated subsidiaries, nor to other long-term participations denominated in foreign currencies which are reported in the published Accounts / Annual Financial Statements at historic cost. These may also be treated as structural positions.

Structural positions may be regarded as including:

a. Any position arising from an instrument which qualifies to be included in a bank's capital base;

b. Any position entered into in relation to the net investment in a self-sustaining subsidiary, the accounting consequence of which is to reduce or eliminate what would otherwise be a movement in the foreign currency translation reserve; or

c. Investments in cross-border subsidiaries or associates which are fully deducted from a bank's capital for capital adequacy purposes. (See above).

Individual banks will be required to submit their definition of structural positions, and policies concerning identification and management of those positions, to the Bank for approval and inclusion in banks' management systems descriptions.

4. Measuring the foreign exchange risk in a portfolio of foreign currency positions and gold

Banks shall apply the "shorthand" method which treats all currencies equally.

Under the shorthand 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. The overall net open position is measured by aggregating:

a. the sum of the net short positions or the sum of the net long positions, whichever is the greater; plus

b. the net position (short or long) in gold, regardless of sign.

The capital charge will be 10% of the overall net open position (see example below).

Table 17: **Example of the shorthand measure of foreign exchange risk**

YEN	EURO	GB£	CHF	US$	GOLD
+50	+100	+150	-20	-180	-35
	+300		-200		35

Capital charge would be 10% of the higher of either the net long currency positions or the net short currency positions (i.e. 300) and of the net position of gold (35) = 335 x 10% = 33.5.

Appendix 5

Commodities Risk

1. Calculating Positions

1.1. General rules

Positions in commodities are calculated as follows:

a. Positions in the same commodity are netted. Positions in different commodities may not be offset against each other. However, with the prior written approval of the Bank, positions in sub-categories of the same commodity may be offset if they are substitutable for each other and if the bank can clearly demonstrate a 0.9 correlation in their price movements over a minimum period of one year;

b. Spot and forward positions are expressed in standard units of measurement (barrels, kilograms, etc.) and converted at the spot rates for the commodity into the domestic currency. These positions are entered in a maturity table, a model of which is given in table 18 below;

c. In order to capture forward gap and interest rate risk within a time band (which, together, are sometimes referred to as curvature / spread risk) matched long and short positions in each time band will carry a capital surcharge. The methodology will be rather similar to that used for interest rate related instruments as set out in Appendix 1. A separate maturity ladder will be used for each commodity.

d. All derivative instruments and other positions whose value is affected by changes in the price of commodities must be included in the measurement system.

e. Options may be excluded from the commodities position along with the underlying hedges, and subjected to a special treatment (scenario analysis or simplified approach: see Appendix 6).

1.2 Special rules for derivative products

i. Financial futures and commodities futures must be included in the measurement system as notional amounts expressed in standard units and must be assigned a maturity corresponding to the expiry date;

ii. Commodity swaps where one leg is at a fixed price and the other is at the current market price must be included as a set of positions equal to the notional amount, with one position for each payment in the corresponding band of the table. Positions will be long if the banking institution pays a fixed price and receives a floating price and short in the opposite case; and

iii. Commodity swaps where the legs are in different commodities are to be incorporated in the relevant maturity ladder and entered in each of the corresponding tables;

Table 18: **Maturity table and spread rates**

Maturity Band	Spread Rate
0 - 1 month	1.5%
1 - 3 months	1.5%

3 - 6 months	1.5%
6 - 9 months	1.5%
9 - 12 months	1.5%
1 - 2 years	1.5%
2 - 3 years	1.5%
> 3 years	1.5%

1.3 Calculating capital requirements

1.3.1 Maturity table method

Positions in individual commodities are entered in a maturity table, with spot positions entered in the first band. A separate maturity ladder shall be used for each commodity, as follows:

a. For each time - band, the sum of the long and short positions which are matched will be multiplied by the spot price of the commodity, and then by the appropriate spread rate associated with that band (set out in Table 18 above).

b. In the following step, the residual net position is successively carried forward to offset exposures in time bands that are further out, where applicable, against opposite positions by applying the spread rate coefficient. Each time a position is carried forward to the next time bands, a capital surcharge equal to 0.6% of the amount carried forward is applied[11]. The capital surcharge for each matched amount created by carrying position forward will be calculated as explained above.

c. These successive carry forwards determine the net position, which is subject to a capital requirement equal to 15% of the amount.

1.3.2 Simplified approach

In calculating the capital charge for directional risk, the same procedures shall be adopted as in the maturity ladder approach. Banks may opt for the simplified method of calculating the capital requirement. It is equal to 15% of the net position in each commodity plus 3% of the gross position (absolute value of long plus short position regardless of maturity), to cater for the protection of the bank against basis risk, interest rate risk and forward gap risk. In valuing the gross positions in commodity derivatives for this purpose, banks shall use the current spot price.

[11]. It should be noted that, the position carried forward will also be multiplied by the number of time bands over which the residual net position is carried across.

Appendix 6

Option Risk

Banks may choose between three different methods to calculate capital requirements for their options portfolios:

a. The Delta-plus method,

b. Scenario analysis method,

c. The Simplified method (available only in certain cases).

1. Delta plus method

Banks convert their options into equivalent positions in the underlying and include them in the positions as described in Appendix 1.

The capital requirements for general risk and, where relevant, specific risks are calculated on these positions in accordance with Appendix 2 through 5 (interest rate risk, equity risk, foreign exchange risk, and commodities risk). Such options shall be reported as a position equal to the market value of the underlying multiplied by delta.

However, the delta plus method does not sufficiently cover the risks associated with options positions, and banks are thus required to measure Gamma and Vega. This method imposes additional capital requirements to cover the risk associated with the non-linear behaviour of options ("Gamma risk" - measures the rate of change of delta) and the sensitivity of options to the volatility of the underlying ("Vega risk"). Gamma and Vega factors are calculated for each individual option position (including hedge positions) and aggregated by underlying. These sensitivities will be calculated according to an approved exchange model or to the banking institution's proprietary options pricing model, which shall be subject to the oversight of the Bank.

A **Gamma** is defined as the second derivative of the value of the option in relation to the underlying. Gamma risk is calculated using the following formula:

Gamma risk = $^1/_2$ x gamma x (variation in the underlying) ^{2}

Variation in the underlying can be denoted as VU

The variation in the underlying (VU) is determined in the same way as in calculating general risk, namely:

i. For options on interest-rate instruments, banks may calculate the gamma either directly in relation to the underlying interest rate or in relation to the market value of the underlying. In the first case, the variation of the underlying is the assumed interest-rate change as defined in Table 11 of Appendix 2[12].

a. This means that for interest rate instruments if the underlying is a bond, the market value of the underlying shall be multiplied by the risk weights set out in Table 11 of Appendix 2[13]; An equivalent calculation shall be carried out where the underlying is an interest rate, again based on the assumed changes in the corresponding yield in Table 11 of Appendix 2.

[12]. Positions have to be slotted into separate maturity ladders by currency.
[13]. Banks using the duration method shall use the time bands as set out in Table 13 of Appendix 2.

b. In the second case, the variation of the underlying is calculated as follows: value of the position x modified duration x interest rate change (see Appendix 2);

ii. For options on equity securities and equity-market indexes, the market value of the underlying shall be multiplied by 8%;

iii. For foreign exchange and gold options, the exchange rate for the currency pair concerned, or the market price of gold shall be multiplied by 8%;

iv. For options on commodities, the market value of the commodity shall be multiplied by 15%.

For the purposes of this calculation the following positions shall be treated as the same underlying:

a. For equity securities and stock-market indexes, each national market,

b. For interest-rate instruments, each maturity time band as defined in Appendix 2,

c. For currencies and gold, each pair of currency and gold,

d. For commodities, the position in each individual product as defined in Appendix 5.

Each option on the same underlying will have either a positive or a negative impact on Gamma. These individual impacts are summed, yielding a net impact on Gamma for each underlying which may be positive or a negative. Only negative net impacts on Gamma are included in the calculation of capital requirements. The total Gamma capital charge will be the sum of the absolute value of the net negative Gamma impacts as calculated above.

B **Vega** (volatility risk) is the derivative of the option price in relation to the implied volatility of the underlying. Vega risk is calculated using the following formula:

Vega risk = Vega x (relative change in volatility)

For all categories of this risk, bank's shall be required to calculate the capital charges as the change in relative value that is equal to ±25% of the implied volatility or the proportional shift in volatility of the options.

C **The overall total capital charge** for Vega risk shall be the sum of the absolute values of the individual capital charges that have been calculated for Vega risk.

2. Scenario analysis method

a. Specific risk is calculated on net positions as defined in Appendix 1 (including the delta equivalent of options).

b. In calculating general market risk, banks may apply "scenario-matrix" analysis to their options portfolios and associated hedging positions. In this case the options and their hedges are dissociated from the net positions calculated in Appendices 1, 4 and 5. The choice of analysis must be communicated in advance to the Bank, which may prohibit its use.

The "scenario-matrix" analysis will be accomplished by specifying a fixed range of changes in the option portfolio's risk factors and calculating changes in the value of the option portfolio at various points along this "grid". For the purposes of calculating capital charges, banks will revalue the option

portfolio using matrices for simultaneous changes in the option's underlying rate or price and in volatility of that rate or price.

Analyses must be based on the following principles:

A different matrix shall be set up or constructed for each underlying (category of instrument), namely:

- A separate matrix for each national market, for risk on equity securities and equity-market indexes;
- A matrix for each currency pair and one for gold, for foreign-exchange risk;
- A matrix for each currency and for each group of maturity bands (at least six groups), for interest-rate risk. A group of bands consists of at most three consecutive bands as defined in column 2, Table 11 of Appendix 2;
- A matrix for each commodity, for commodity risk.

The options and related hedging positions will be evaluated over a specified range above and below the current value of the underlying. The range for interest rates is consistent with the assumed changes in yield in Table 11 of Appendix 2.

For those banks using the alternative method (internal method approach) for interest rate options, set out above shall use, for each set of time band, the highest of the assumed changes in yield applicable to the group to which the time band belongs[14].

The rows of the matrices represent variations in the value of the underlying (solely with respect to general risk) and must satisfy the following conditions:

- The range of variation is ± 8% for equity securities and stock-market indexes;
- The range of variation is ± 8% for foreign exchange and gold;
- The range of variation in price is ± 15% for commodities;
- The range of variation in interest rates for a group of maturity bands is equal to the largest assumed interest-rate change within the group in question;

It should be noted that for all categories of risk, each band is divided into at least seven observations at identical intervals, including the current observation (for example, for commodities: - 15%, - 10%, - 5%, 0%, + 5%, + 10%, + 15%).

The second dimension or the columns of the matrix represent the relative variations in the volatility of the underlying rate or price. A single change in the volatility of the underlying rate or price equal to a shift in volatility of ± 25% is required to be sufficient in most cases. In each cell of the matrix, the portfolio is revalued in response to changes in the underlying and its volatility.

After calculating the matrix, each cell contains the net gain or loss in the value of the options and any associated hedges; the cell containing the largest loss will then be used to determine the capital requirement for the underlying associated with that matrix.

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[14]. If for example, the time-bands 3 to 4 years, 4 to 5 years and 5 to 7 years are combined, the highest assumed change in yield of the three bands would be 0.75.

The application of the scenario analysis method by any specific bank will be subject to the consent of the Bank, particularly as regards the precise way that the analysis is constructed. Bank's use of this method as part of the standard methodology will also be subject to validation by the Bank, and to those of the qualitative standards listed in Appendix 6 which are appropriate given the nature of the bank.

Besides the options risks mentioned above, the Bank is conscious of the other risks also associated with options, e.g. rho (rate of change of the value of the option with respect to the interest rate). While not proposing a measurement system for those risks at present, it expects banks undertaking significant options business at the very least to monitor such risks closely. Additionally, banking institutions will be permitted to incorporate rho into their capital calculations for interest rate risk, if they wish to do so.

3. Simplified method

Banks that handle a limited range of purchased options only may use the simplified approach described below for specific combinations. If the portfolio consists of a long position on a call or put option, the capital requirement is the smaller of the following two amounts:

a) The sum of the general risk and the specific risk (if any) calculated on the underlying;

b) The value of the option; for items that are not marked to market (such as certain foreign exchange options), the book value may be used.

If the portfolio consists of:

i. A long spot position coupled with a long put position in one-to-one proportions; or

ii. A short spot position coupled with a long call position in one-to-one proportions, the capital requirement is equal to the sum of the capital requirements for general risk and specific risk (if any) calculated on the spot position, less the amount the intrinsic value of the option (if any), with a minimum of zero. The intrinsic value is the difference:

iii. For a call, between the market value of the underlying and the strike price,

iv. For a put, between the strike price and the market value of the underlying.

Appendix 7

Treatment of credit derivatives in the trading book

A bank must determine the capital to be held against credit derivative instruments in the trading book in accordance with this determination.

A bank must include in its trading book total-rate-of-return swaps, except those that have been transacted to hedge a banking book credit exposure in accordance with the requirements in the credit risk determination. A bank must include open short positions in credit derivatives in its trading book. The Bank may in writing exempt a bank from this requirement on a one-off approval basis.

1. Scope

1.1 This appendix applies to single name credit-default swaps, certain total-rate-of-return swaps, cash-funded credit-linked notes and first- and second to-default baskets. A bank that transacts more complex credit derivatives that fall outside the scope of this appendix must, prior to execution of a relevant credit derivative contract, obtain the Bank's written approval regarding the appropriate regulatory capital treatment for such transactions.

1.2 Where the Bank considers that a bank is undertaking significant credit derivative activity, as either a purchaser or seller of protection, such that large exposures and concentrations are a potential concern, the Bank may require that bank to adopt an alternative capital treatment to that described in this determination.

1.3 A bank may use either the standard method or, with Bank's approval, an internal model to measure the general market risk and specific risk charges on credit derivative positions in the trading book. This appendix outlines only the calculation of the capital charge for credit derivatives under the standard method. A bank that wishes to use an internal risk measurement model to generate the regulatory capital charge must obtain Bank's approval.

2. General principles - general market risk

2.1 A bank that uses the standard method must treat credit derivatives based on a single reference entity in the same way as interest rate-related derivatives (refer to appendix 2) for the purposes of calculating a general market risk capital charge. Each credit derivative instrument is broken down into a notional debt instrument, to reflect the interest rate or fee-paying leg (if regular fees are paid under the terms of the contract) and, where applicable, a position in the reference obligation.

2.2 A bank must include these positions in the maturity ladder applicable to the currency of the cash flows and report at their market values.

3. General principles - specific risk

3.1 Where the credit-event payment is defined as the par value of the reference obligation less its recovery value (i.e. the credit derivative is cash settled), a bank must report for specific risk purposes the par value of the reference obligation. Where the credit-event payment is defined as a fixed amount, the bank must report the fixed amount. Where there is payment of the par value of an obligation in exchange for its physical delivery, the bank must report the par value of the obligation. In the latter two cases, the amount reported must reflect a position in the reference entity with maturity equal to the term to maturity of the credit derivative.

4. General principles - counterparty risk

4.1 The risk-weights to be used in the calculation of the counterparty risk charge must be consistent with those used for calculating the capital requirements in the banking book under the standardized approach.

4.2 A bank undertaking particular types of credit derivative transaction in the trading book must calculate a counterparty risk charge using the Current Exposure Method. This method calculates the regulatory capital charge for counterparty risk as the sum of the mark-to-market value of the derivative (if positive) and a measure of future potential credit exposure, where the latter is based on an "add-on" factor that depends on the type and maturity of the derivative transaction.

5. Credit-default swaps

5.1 The protection buyer in a credit-default swap must enter into the maturity ladder a short position in a notional debt instrument, where regular interest or fee cash flows are to be paid, to reflect the general market risk associated with those cash flows. A specific risk capital charge must also be calculated on a short position in the reference entity.

5.2 The protection seller in a credit-default swap must enter into the maturity ladder a long position in a notional debt instrument, where regular interest or fee cash flows are to be received, to reflect the general market risk associated with those cash flows. A specific risk capital charge must also be calculated on the long position in the reference entity.

6. Total-rate-of-return swaps

6.1 The protection buyer in a total-rate-of-return swap must enter into the maturity ladder a position in a notional debt instrument, where regular interest or fee cash flows are to be exchanged, to reflect the general market risk associated with those cash flows. General market risk and specific risk capital charges must also be calculated on the short position in the reference obligation.

6.2 The protection seller in a total-rate-of-return swap must enter into the maturity ladder a position in a notional debt instrument, where regular interest or fee cash flows are to be exchanged, to reflect the general market risk associated with those cash flows. General market risk and specific risk capital charges must also be calculated on the long position in the reference obligation.

7. Cash-funded credit-linked notes

7.1 The protection buyer in a credit-linked note must enter into the maturity ladder a short position in the underlying interest rate instrument for general market risk purposes. A specific risk capital charge must also be calculated on the short position in the reference entity.

7.2 The protection seller in a credit-linked note must enter into the maturity ladder a long position in the underlying interest rate instrument for general market risk purposes. A specific risk capital charge must be calculated on the long position in the reference entity and the long position in the underlying interest rate instrument (i.e. the long position in the protection buyer).

8. First- and second-to-default basket credit derivatives

8.1 The protection buyer in a first- or second-to-default basket must enter into the maturity ladder a short position in a notional debt instrument, where regular interest or fee cash flows are to be paid, to reflect the general market risk associated with those cash flows. A specific risk capital charge must also be calculated on a short position in only one reference entity in the basket, with that entity being chosen by the bank.

8.2 The protection seller in a first- or second-to-default basket must enter into the maturity ladder a long position in a notional debt instrument, where regular interest or fee cash flows are to be received, to reflect the general market risk associated with those cash flows. Where a first-to-default or second-to-default basket product has an external credit assessment from an eligible credit assessment institution, a bank may set a specific risk charge applicable to a long position in an equivalently rated entity. Otherwise, a bank must calculate a specific risk capital charge for a first-to-default basket on the long positions in all reference entities in the basket, and for a second-to-default basket on the long positions in all reference entities in the basket, excluding the entity with the lowest specific risk in the basket. The amount of capital held may be capped at the maximum payout possible under the credit derivative contract.

9. Specific risk offsetting

9.1 Offsetting between credit derivatives

A bank may only offset the specific risk capital charges on equal and opposite credit derivative positions. Where the credit derivatives are equal and opposite in all respects other than tenor, the specific risk capital charges must not be offset. Instead, a single specific risk capital charge must be calculated, based on the reference entity.

The specific risk capital charges arising from different credit derivative product structures must not be offset.

9.2 Offsetting between a credit derivative and the associated underlying exposure

9.2.1 A bank may recognize the full allowance for offsetting when the values of two legs (i.e. long and short) always move in the opposite direction and broadly to the same extent. This occurs where:

(a) the two legs consist of completely identical instruments; or

(b) 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 (i.e. the cash position). In these cases, specific risk capital requirements do not apply to either side of the position.

9.2.2 A bank may recognize an offset of 80 per cent when the value of two legs (i.e. long and short) always moves in the opposite direction 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 (e.g. credit event definitions, settlement mechanisms) must 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 (i.e. taking account of restrictive payout provisions such as fixed payouts and materiality thresholds), an 80 per cent specific risk offset may be applied to the side of the transaction with the higher capital charge, while the specific risk requirement on the other side is zero.

9.2.3 A bank may recognize a partial offset when the value of the two legs (i.e. long and short) usually moves in the opposite direction. This occurs where:

(a) the position is captured in paragraph 9.2.1(b), but there is an asset mismatch between the reference obligation and the underlying exposure; or

(b) the position is captured in paragraphs 9.2.1(a) or 9.2.2 but there is a currency or maturity mismatch between the credit protection and the underlying asset; or

(c) the position is captured in paragraph 9.2.2 but there is an asset mismatch between the cash position and the credit derivative. However, the underlying asset is included in the (deliverable) obligations in the credit derivative documentation.

9.2.4 Where an instrument complies with paragraphs 9.2.1, 9.2.2 or 9.2.3, rather than adding the specific risk capital requirements for each side of the transaction (i.e. the credit protection and the underlying asset), a bank may apply only the higher of the two capital requirements. Where an instrument does not comply with these paragraphs, the bank must assess a specific risk capital charge against both sides of the position.

9.2.5 A bank holding long positions in first-to-default and second-to-default products (e.g. buyers of basket credit-linked notes) is treated as if it were a protection seller and must add the specific risk charges or use the external rating if available. An issuer of these notes is treated as if it were a protection buyer and is therefore allowed to offset specific risk for one of the underlying assets, i.e. the asset with the lowest specific risk charge.

PART VII: OTHER REGULATORY REQUIREMENTS

30. Maintenance of supporting documentation

Each bank shall maintain records which are sufficient to determine at all times its positions on exposures in all risk areas. Each bank shall also maintain a daily record showing close-of-business day positions in all exposures and a reconciliation of opening-to-closing positions.

31. Reporting Requirement

The bank shall, at the end of each calendar quarter submit to the Bank returns in terms of this determination in the format, frequency and submission date as specified by the Bank.

32. Declaration

If, in the normal course of business, a bank anticipates that it will not have adequate capital available to comply with the minimum ratios set forth in paragraph 9 above

or with any higher minimum ratio that may be required by the Bank under paragraph 10 above, due to circumstances beyond the bank's reasonable ability to anticipate and control, then the bank shall in writing inform the Bank urgently as such, stating the reasons for non-compliance and indicating in a detailed plan how and when the position will be corrected.

33. Remedial measures

If a bank fails to comply with this determination, then 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.

34. Effective date

The effective date of this determination shall be 1 January 2010.

35. Repeal of BID-5

This determination repeals and replaces the Determinations on Capital Adequacy (BID-5) published, as General Notice No. 280 in the Government Gazette No. 3078 of 30 October 2003.

Questions relating to this determination should be addressed to the Director of Banking Supervision Department, Bank of Namibia, Tel: +264 61 283-5040.

36. Glossary of terms

"asset-backed commercial paper (ABCP) program" - An asset-backed commercial program predominately issues commercial paper with an original maturity of one year or less that is backed by assets or other exposures held in a bankruptcy-remote, special purpose entity.

"banking book" - means all the banking institution's on-balance sheet assets and off-balance sheet exposures except such assets which are required to be recorded in the institution's trading book.

"calendar quarter", means a consecutive period of 3 calendar months ending on the last day of March, June, September or December;

"cash-flow water fall"- Refers to the prioritization of payments and allocation of loss arising from the underlying pool of securitization exposures (distribution of payout to participants in the securitization transactions depending on the positions that several investors hold in the transaction whether senior or subordinated that also determine the amount of losses that they will have to bear).

"clean-up call" - is an option that permits the securitization exposures to be called before all the underlying exposures or securitization exposures has been repaid. In the case of traditional securitizations, this is generally accomplished by repurchasing the remaining securitization exposures once the pool balance or outstanding securities have fallen bellow some specified level. In the case of synthetic transaction, the clean-up call may take the form of a clause that extinguishes the credit protection.

"collateralized transactions" means the transactions in which banks have credit exposure or potential credit exposure, and that credit exposure or potential exposure is hedged in whole or in part by collateral posted by a counterparty or by a third party on behalf of the counterparty.

"commodity risk" - means the risk that potential for reduced income or losses in on- or off-balance sheet positions may arise from adverse movements on commodity prices.

"credit enhancement" - Is a contractual arrangement in which the bank retains or assumes a securitization exposure and, in substance, provide some degree of added protection to other parties to the transaction.

"credit derivative" - means a financial instrument that allows participants to decouple credit risk from an asset and to place it with another party.

"credit equivalent" - in relation to off-balance sheet exposures means the value obtained by multiplying the principal amount of the of-balance sheet exposure, by the applicable credit conversion factor. The resultant credit equivalent amount is assigned to the appropriate risk category according to the nature of claims.

"credit-enhancing interest only strip" - is an on balance sheet asset that (i) represents a valuation of cash flows related to future margin income, and (ii) is subordinated.

"credit protection" - means the protection afforded to the exposure by the recognized credit risk mitigation;

"credit quality grade/assessment" - means grade or assessment represented by the symbols to which the credit assessment of an External Credit Assessment Institutions (ECAI) rating is mapped for the purpose of determining the appropriate risk-weight for an on-balance sheet asset or off-balance sheet exposure of banking institutions.

"credit-event payment" - the amount that is payable by the credit protection provider to the credit protection buyer under the terms of the credit derivative contract following the occurrence of a credit event. The payment can be in the form of physical settlement (payment of par in exchange for physical delivery of a deliverable obligation of the reference entity) or cash settlement (payment of a fixed amount, or payment of the par value of the reference obligation less that obligation's recovery value);

"credit events" - events affecting the reference entity that trigger a credit-event payment under the terms of the credit derivative contract;

"credit risk" - means the risk that arises from the potential that an obligor is either unwilling to perform on an obligation or its ability to perform such an obligation is impaired resulting in economic loss to the bank;

"debt security" - means all negotiable short and long term debt instruments, including NCD's, but excluding equity shares, investment funds and warrants. Further to this, NCD's can be classified as money market securities that are short-term, highly liquid, low risk debts of government, banks or corporate.

"deliverable obligation" - any obligation of the reference entity that can be delivered, under the terms of the contract, if a credit event occurs. A deliverable obligation is relevant for credit derivatives that are to be physically settled;

"early amortization provisions" - refers to mechanisms that, once triggered, allow investors to be paid out prior to the originally stated maturity of the securities issued.

"equity position risk" - means the risk that potential for reduced income or losses in on- or off-balance sheet positions may arise from adverse changes in equity prices.

"excess spread" - refers to the deference between the cash flow paid by the obligor of the underlying exposures and the coupons paid on the security sold to investors, minus servicing fees, certificate interest and other expense relating to SPE.

"financial asset" - means the contractual right to receive cash or another financial asset or contractual right to exchange financial assets on potentially favourable terms or an equity instrument.

"financial liability" - means the contractual obligation to deliver cash or another financial asset or to exchange financial liabilities under conditions that are potentially unfavourable.

"foreign exchange rate risk" - means the risk that the value of foreign exchange positions may be adversely affected by changes in exchange rates.

"gross income", in relation to the calculation of a bank's operational risk using the "BIA or TSA", means the sum of the bank's net interest income and non-interest income before the deduction from any such income of -

(a) the operating expenses of the bank (including any fees paid / incurred for outsourcing services); and

(b) any general provisions and specific provisions made by the bank;

"hair cut" - means an adjustment to be applied to the credit protection held by the banking institution, or the institution's exposure, to take into account possible future price fluctuations or fluctuations in exchange rates;

"implicit support"- the term refers to the wide range of mechanisms by which a bank provides non-contractual support to the holders of some securitization exposures, usually once there is deterioration in the credit quality of the underlying pool of exposures.

"interest expenses", in relation to the calculation of a bank's operational risk, means the sum of -

(a) the interest paid by the bank on its interest-bearing liabilities; and

(b) the accrued interest payable by the bank on its interest bearing liabilities;

"interest bearing liabilities", is defined as total liabilities, excluding acceptances, trade creditors and taxation liabilities as well as capital and reserves.

"interest earning assets", is defined as interest earned from loans and advances, investments that generate interest income, before specific and general provisions.

"interest income", in relation to the calculation of a bank's operational risk, means the sum of -

(a) the interest received by the bank on its interest-bearing assets;

(b) the accrued interest receivable by the bank on its interest bearing assets in respect of loans receivable and deposits;

"interest rate risk" - means the risk that potential loss in on- or off-balance sheet position diverse changes in interest rates.

"mark to market" - in relation to any transaction, contract or recognized credit risk mitigation, means the revaluation of the transaction, contract or recognized credit risk mitigation at current market rates.

"market risk" - means the risk of loss on on-balance sheet or off balance sheet positions arising from fluctuations in market prices and covers:

(a) The risk pertaining to interest related instruments and equities position in the trading book; and

(b) Foreign exchange risk and commodities risk arising from on- and off-balance sheet activities throughout the banking institution.

"netting" - means the process whereby

(a) a person's long position in a financial instrument is off-set against that person's short position in the financial instrument; and

(b) that person's short position in a financial instrument is set-off against his long position in the financial instrument, in order to ascertain the net position of the person in question.

"net interest income", in relation to the calculation of a bank's operational risk, means the interest income of the bank after deducting the interest expenses;

"non-interest income", in relation to the calculation of a bank's operational risk -

(a) subject to paragraph (b), means -

(i) income recognised by the bank from -

(A) gains less losses arising from the bank's trading book (i.e. foreign currencies, exchange rate contracts, interest rate contracts, equity contracts, precious metal contracts, other commodity contracts, credit derivative contracts and securities);

(B) dividends recognised by the bank from its shareholdings in other companies; and

(C) fees and commissions recognised by the bank (including any fees and commissions received by the bank from outsourcing of services); and

(ii) any other income (except interest income) arising in the ordinary course of the business of the bank;

(b) Does not include -

(i) reversals of -

(A) write-downs of inventories, property, plant and equipment of the bank; or

(B) provisions for bad and doubtful debts of the bank;

(ii) income recognised by the bank from disposals of items of fixed assets (i.e. property, plant and equipment);

(iii) income recognised by the bank from disposals of non-trading investments;

(iv) extraordinary / irregular items (i.e. litigation settlements in favour of the bank); and

(v) income recognised from insurance claims for the benefit of the bank;

"operational risk", is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

The operational risk definition includes legal risk[15], but excludes strategic and reputational risk. It should be noted that it is not the intention of Pillar 1 capital charge to cover all indirect losses or opportunity costs.

"originating bank" - a bank is considered originating with regard to certain securitization if it meets either of the following conditions:

- The bank originates directly or indirectly underlying exposures included in the securitization;
- The bank serves as a sponsor of an assets-backed commercial paper (ABCP) conduit or similar program that acquires exposures from third- party entities. In the context of such program, a bank would generally be considered a sponsor and, in turn, an originator if it, in fact or in substance, manages or advises the program, place securities into the market or provide liquidity and/or credit enhancement.

"past due exposure" - means an exposure which is overdue for more than 90 days or has been rescheduled. Overdraft facilities shall be considered as past due once the customer has breached an advised limit or been advised of limit smaller than current outstanding balance;

reference entity - the entity or entity whose obligations are used to determine whether a credit event has occurred under the terms of the credit derivative contract;

[15] Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements. The *Bank* will review the capital requirement produced by the operational risk standardised approach used by a banking institution for general credibility, especially in relation to peer banking institutions. In the event that credibility is lacking, appropriate regulatory enforcement action under Pillar 2 will be considered. If negative gross income distorts a banking institution's Pillar 1 capital charge, the *Bank* will consider appropriate supervisory action under Pillar 2 (Supervisory Review).

reference obligation - the obligation used to calculate the amount payable when a credit event occurs. A reference obligation is relevant for obligations that are to be cash settled (on a par less recovery basis); and

"rescheduled loans and advances" - means any loans and advances for which the bank has granted a concession to a borrower owing to deterioration in the borrower's financial condition. The rescheduling may include -

i) a modification of terms from what have been originally agreed, for example, a reduction in interest rate, or lengthening of maturity, or differing of loan principal payment;

ii) the substitution or addition of new debtor for the original borrower.

"securitization" - means the process by which relatively homogenous pools of loans, originally made by a bank, are converted into tradable securities.

"special purpose entity (SPE)" - An SPE is a corporation, trust, or other entity organized for a specific purpose, the activities of which are limited to those appropriate to accomplish the purpose of the SPE, and the structure of which is intended to isolate the SPE from the credit risk of an originator or seller of exposures. SPE are commonly used as financing vehicles in which exposures are sold to a trust or similar entity in exchange for cash or other assts funded by debt issued by the trust.

"specific and general risk"

1) Specific and general risk includes the position risk on traded loan stock or securities (or derivatives thereof), which shall be divided into two components for purposes of calculating the capital requirements.

2) The first component shall be the specific risk component, that is, the risk of a price change in the underlying instrument owing to factors related to the issuer of the instrument, or, in the case of derivatives, the issuer of the underlying instrument.

3) The second component shall be the general risk component, that is, the risk of price change in the underlying instrument owing (in case of traded loan-stock instrument or loan-stock derivative) to a change in the level of interest rates or (in case of a security or security derivative) to a broad market movement unrelated to any specific attributes of the individual securities.

"spot mid-rate" - is an arithmetic mean of bid and offer prices expressed as a factor of the domestic currency equivalent, at which a foreign currency is converted to a domestic currency equivalent.

"synthetic securitization" - means the one that involves the use of credit risk mitigation techniques to hedge the underlying exposures and where no legal or economic transfer of pool of loans or obligation by an originating institution to a third party is required.

"third-party banks"- in the context of a securitization, "third party banks" refers to all banks involved in the transaction other than the originating bank. This would include, for instance, banks providing liquidity facilities or various forms of credit enhancements.

"traditional securitization" - means the one that involves the legal or economic transfer of assets or obligation by an originating institutions to a third party, typically referred to as a "Special Purpose Vehicles (SPV) ". An SPV issues assets backed securities, which are claims against specific asset pool.

"trapping point"- refers to the point at which banks are required by the transactions terms to start retaining or accumulating the excess spread for controlled or non-controlled early amortization features. It is an indicator that measures the variation in the credit quality of the underlying pool of exposures and the probability of early amortization (indicate that the excess spread may become inadequate at certain point in future to prevent an early amortization clause to be triggered).

"trading book" - Consist 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 for example proprietary positions, positions arising from client servicing and market making. To be eligible for trading book capital treatment, financial instruments must either be free of any restrictive covenants on their tradability or able to be hedged completely. In addition, positions shall be frequently and accurately valued, and the portfolio shall be actively managed.

"underlying exposure" - the exposure which is being protected by the credit derivative.

"year" - in relation to the computation of a bank's gross income for the purposes of calculating the bank's operational risk capital charges, means a period of 4 consecutive calendar quarters.

BANK OF NAMIBIA

No. 292 2009

DETERMINATIONS UNDER THE BANKING INSTITUTIONS ACT, 1998 (ACT NO. 2 OF 1998): MINIMUM LIQUID ASSETS: DETERMINATIONS ON MINIMUM LIQUID ASSETS (BID-6)

In my capacity as Governor of the Bank of Namibia (Bank), and under the powers vested in the Bank by virtue of section 71(3) of the Banking Institutions Act, 1998 (Act No 2 of 1998), read in conjunction with Section 31 of the aforementioned Act, I hereby issue this **Determination on Minimum Liquid Assets (BID-6). The Determinations on Minimum Liquid Assets (BID-6)** published, as general notice No.198, in the Government Gazette No. 3879 of 17 July 2007, is hereby repealed.

T.K. ALWEENDO
GOVERNOR

Determination No. BID-6

MINIMUM LIQUID ASSETS

Arrangement of Paragraphs

PART I
Preliminary

PARAGRAPHS

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PART I: PRELIMINARY

1. **Short Title** – Liquidity Risks.

2. **Authorization** - Authority for the Bank to issue this Determination is provided in section 71(3) of the Banking Institutions Act, 1998 (Act).

3. **Application** – This Determination applies to all banks authorized by the Bank to conduct banking business in Namibia.

4. **Definitions** - Terms used within this Determination are as defined in the Act, as further defined below, or as reasonably implied by contextual usage:

4.1) **"bank"** – means banking institution as defined in the Act.

4.2) **"composition of liquid assets"** - For the purpose of this Determination, liquid assets comprise: -

(a) Notes and coins which are legal tender in Namibia, gold coin and bullion;
(b) Clearing account balances held with Bank of Namibia;
(c) Call account balances held with Bank of Namibia;
(d) Securities of the Bank of Namibia;
(e) Treasury Bills of the Government of Namibia;
(f) Stocks, securities, bills and bonds of the Government of Namibia
(g) STRIPS[1] bonds;
(h) Any other securities, bonds and bills fully guaranteed by the Government of Namibia, which form part of the public issue[2];
(i) Investment graded debt securities (rated by reputable international rating agency such as Fitch, Moody and Standard &Poor (S&P) or any other reputable institution recognized by the Bank) issued by Namibian Public Sector Entities (PSE) and Corporates;
(j) Net amount of loans and deposits, repayable on demand, plus the net amount of negotiable certificates of deposits with maturities of twelve months or less, with Namibian banks or building societies other than a subsidiary or fellow subsidiary of the bank or building society concerned or of a bank or building society by which the bank or building society concerned is controlled directly or indirectly.

4.3) **"maturity mismatch approach"** - an approach used to assess the mismatches between assets and liabilities within different time bands on a maturity ladder.

4.4) **"maturity ladder"** – a table constructed for comparison use of a bank's future cash inflows and outflows over a series of specified time periods.

4.5) **"liquidity"** – refers to a bank's ability to fund increases in assets and meet obligations as they fall due including off-balance sheet commitments, without incurring unacceptable losses as approved by banks board of directors.

4.6) **"average amount of total liabilities to the public"** - average daily amount of total liabilities to the public shall be determined by aggregating the total liabilities of all the days in a given month divided by the number of the days of the same month.

In determining the average as described above, the total liabilities as at the end of the previous working day shall be used for liabilities on Sundays and Public Holidays. Total liabilities (incl. foreign liabilities) mean deposits (net of investment in negotiable certificate of deposits and inter-bank term deposits/loans[3]), loans and advances received and other liabilities to the public; but shall exclude capital funds[4].

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[1]. Separate Trading of Registered Interest and Principal of Securities of Namibian Government Securities
[2]. Method for inviting offers from the public, for the subscription or purchase of shares in, or debentures of, a body corporate by means of a notice, circular or advertisement in the press.
[3] Whilst net interbank deposits repayable on demand are accorded liquid asset status, net interbank deposits of a term nature are not. However, these term deposits are allowed to be netted off against the total liability base.
[4] Capital funds as defined in BID-5

Liabilities under acceptances shall be excluded.

4.7) **"net cumulative mismatch position"** – a figure obtained by cumulating the differences between assets and liabilities in various time bands and expressed as a percentage of total liabilities.

PART II: STATEMENT OF POLICY

5. **Purpose** - This Determination is intended to ensure that banks maintains effective and ongoing liquidity management systems.

6. **Scope** - This Determination applies to all the banks overall components of liquidity.

7. **Responsibility**

The board of directors of each bank shall be responsible for establishing, implementing and maintaining a liquidity management strategy that is appropriate for the operations of the bank to ensure that it has sufficient liquidity to meet its obligations as they fall due.

A bank shall adhere to its liquidity management strategy at all times and review it regularly (at least annually) to take account of changing operating circumstances.

PART III: IMPLEMENTATION AND SPECIFIC REQUIREMENTS

8. **Requirements** – The following minimum requirements shall form part of this determination:

8.1 A bank's liquidity management strategy shall include the following elements:

(a) a liquidity management policy approved by the board of directors or a board committee.

(b) a system for measuring, assessing and reporting liquidity;

(c) procedures for managing liquidity;

(d) clearly defined managerial responsibilities and controls; and

(e) a formal contingency plan for dealing with a liquidity crisis.

8.2 A bank's liquidity management strategy shall cover both the local and cross-border operations of the bank, as well as all related entities which have impact on the bank's liquidity. Where a bank manages liquidity on a group basis, the strategy shall cover both the bank and the group as a whole. The strategy shall address all on- and off-balance sheet activities of the bank and, where relevant, the bank group as a whole across all currencies.

8.3 A bank's liquidity management strategy should, where appropriate, include scenario analysis. At least two scenarios are to be addressed:

(a) "going-concern" refers to the "normal" behaviour of cash flows in the ordinary course of business; and

(b) "name crisis"[5] refers to the behaviour of cash flows in adverse operating circumstances specific to the bank, where it has significant difficulty in rolling over or replacing its liabilities.

8.4 A bank shall hold an average daily amount of liquid assets in Namibia which shall not be less than an amount equal to **10** per cent of the average daily amount of its total liabilities to the public for the preceding month and shall furnished to the Bank a return in accordance with paragraph 13 of this Determination.

8.5 Provided that the minimum amount of liquid assets held on any day during the period specified in paragraph 9 below shall not be less than an amount equal to **75** per cent of the average daily amount of liquid assets required to be held by the bank in terms of this Determination.

8.6 For prudential purposes, banks shall be required to report their liquidity through the maturity mismatches approach and furnish the Bank a monthly return**.**

8.7 Banks shall also be required to set their own limits on net cumulative mismatches for each maturity time band. These limits should be included in the bank's liquidity management policy, approved by the board of directors of the bank.

8.8 The debt securities issued by a PSE and Corporates shall have a minimum public issue size of N$200 million and shall be subject to the following valuation haircuts:

Description	Fitch rating	Moody	S & P	Haircut
Long term domestic ratings	A to A-	A1 to A3	A to A-	10%
	BBB+ BBB	Baa1 Baa2	BBB+ BBB	20%
Short term issue ratings	F1	P-1	A-1	10%
	F2	P-2	A-2	20%
	F3	P-3	A-3	30%

These securities are also subjected to the following additional requirements:

- They shall not be convertible;
- Where a bank holds more than 30% of the total market value of a particular issue of debt security, a 50% haircut should be applied; and
- They should be carried at fair value.

9. **Maintenance** – A bank shall maintain the minimum amounts contemplated in paragraph 8.4 of this Determination during the compliance period, that is, from the fifteenth day of the month to which a particular return relates, up to and including the fourteenth day of the following month.

[5] Please refer to annexure with examples. However the examples to the excerpts should only be taken as minimum and banks should not be limited to these examples.

10. Assets pledged or encumbered

10.1 Unless specifically or generally approved by the Bank in writing, no liquid assets used for the fulfillment of the requirements of paragraph 8.4 of this Determination shall be pledged or otherwise encumbered.

10.2 Securities lodged with the Bank to secure facilities shall not be regarded as pledged except to the extent that they are required to secure facilities actually utilized.

11. Netting-off – For calculation of liquid assets for the purposes of liquid assets requirement in terms of this Determination, all reciprocal deposits with other banks shall be netted out.

12. Contingency plan

Banks shall have in place a contingency plan to deal with liquidity crises. The contingency plans have to be dynamic and should also reflect the conceivable funding in the market under stressful situations. Banks should therefore on a regular basis (at least once a year) test their plans for eventualities.

13. Reporting requirements

13.1 The bank shall, at the end of each month submit to the Bank all returns in terms of this Determination by not later than the 26th day of the following month.

Example: the liquidity compliance for the month of July 2003 which covers the compliance period of 15th of July to 14th August 2003 must be reported by not later the 26th of August 2003, based on the following:-

- Average daily liquid assets holdings over the period 15th July 2003 to 14th of August 2003.
- Average daily total liabilities to the public as computed over the month of June 2003.

13.2 Notwithstanding the above requirement, banks must report to the Bank immediately, in accordance with the provisions of section 31(2) of the Act, in the event that their liquid assets holdings, on any day, fall short of the legal requirement. The banks are required to state the reason(s) for such failure and to indicate how and when the failure is to be rectified. In addition, the banks are required to explain the steps to be taken to ensure such failure will not occur again.

PART IV: CORRECTIVE MEASURES

14. Remedial measures - If a bank fails to comply with this Determination, then 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.

PART V: EFFECTIVE DATE

15. Effective date - The effective date of this Determination shall be 1 January 2010.

16. **Repeal of BID-6** - This Determination repeals and replaces the Determinations on Minimum Liquid Assets Requirements (BID-6) published, as General Notice No. 198, in the Government Gazette No. 3879 of 17 July 2007.

Questions relating to this Determination should be addressed to the Director, Banking Supervision Department, Bank of Namibia, Tel: 283-5040.

Annexure: Examples

1. Some examples for elements concerning scenarios for projecting cashflows considering both market-wide and bank-specific difficulties are the following:

   To test market illiquidity or system-wide events, scenarios may assume:

   - interbank market difficulties,
   - the withdrawal of a major market player from a particular market,
   - illiquidity in specific markets (e.g. crisis in emerging countries), and
   - distress of specific currencies important for the bank's funding.

   To test bank-specific liquidity distress, scenarios may assume:

   - a downgrade of the bank's own rating or an expectation of a downgrade leading to an increase in funding cost,
   - a sharp increase in the drawdown of commitments by borrowers,
   - a sudden change in the composition of deposits and a sudden increase of cash deposit withdrawals, and
   - a tightening of credit lines.

2. Examples for reasonable assumptions when assessing the impact of these scenarios on the cash flows are:

   - the bank's projected stock of potential assets,

     Banks could consider (i) the expected proportion of maturing assets that will be rolled-over, (ii) the expected amount of new loans that will be approved, and (iii) the level of draw downs of commitments to lend that the institution will need to fund.

   - the cash flows arising from the bank's liabilities under stress conditions,

     These may be derived in comparison with the cash flows that normally arise (i.e. given the level of roll-overs, the effective maturity of liabilities with non-contractual maturity and the growth of deposits). Assumptions on the liability side are likely to determine (i) the stable sources of funding in cases of stress, (ii) the potential run-off of liabilities with non-contractual maturities, (iii) the potential exercise of options giving counterparties the right to withdraw funds immediately, as well as (iv) the potential use of back-up facilities.

   - the market perception of the bank and its access to the markets.

     This may include assumptions relative to the bank's access to OTC derivative and foreign exchange markets, as well as its access to secured funding, including by way of repo transactions. Securitisation may be also considered to assess potential triggering of early amortisation. Banks may also estimate their capacity to sell assets including the terms of such sales (e.g. discounts).

3. Examples for elements of a contingency plan are:

- definition of the events triggering the plan,
- a description of the potential sources of funding either on the asset or on the liabilities side (e.g. slowing loan growth, sale or repo of liquid assets, securitisation, subsidiary sales, increasing deposit growth, lengthening maturities of its liabilities as they mature, draw-down of committed facilities, capital raising, stopping dividends to parents),
- an escalation procedure detailing how additional funds could be raised,
- a procedure for the smooth management of the contingency, which should include a description of the delineation of responsibilities (including the responsibilities of the management body) and a process to ensure timely information flow (for instance through contact lists), and
- a procedure to guide potential contacts with external parties such as important counterparties, auditors, analysts, media or supervisory authorities.

BANK OF NAMIBIA

No. 293 2009

DETERMINATIONS UNDER THE BANKING INSTITUTIONS ACT, 1998
(ACT NO. 2 OF 1998): PUBLIC DISCLOSURES FOR BANKING INSTITUTIONS (BID-18)

In my capacity as Governor of the Bank of Namibia (Bank), and under the powers vested in the Bank by virtue of section 71(3) of the Banking Institutions Act, 1998 (Act No. 2 of 1998), as amended, read in conjunction with Section 47 (2) (a) (ii) of the aforementioned Act, I hereby issue this **Determination on Public Disclosures for Banking Institutions (BID-18)**, which Determinations shall become effective on 1 January 2010.

T.K. ALWEENDO
GOVERNOR WINDHOEK, October 2009

Determination No. BID-18.

Public Disclosures for Banking Institutions

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PART I: PRELIMINARY

1. **Short Title** – Public Disclosure

2. **Authorisation** - Authority for the Bank of Namibia (the "Bank") to issue this Determination is provided in section 71(3) of the Banking Institutions Act, 1998 (Act No. 2 of 1998), herein after referred to as the "Act".

3. **Application** – This Determination applies to all banking institutions authorised by the Bank to conduct banking business in Namibia.

4. **Definitions** - Terms used within this Determination are as reasonably implied by contextual usage:

"Banking group" means a group consisting of two or more persons, whether natural or juristic persons that are predominantly engaged in financial activities as may be defined by the Bank under the provisions of the Act

"Controlling company" means a company registered in terms of this Determination as a controlling company in respect of a banking institution" and shall, for the purposes of this Determination, have the same meaning as "holding company"

"Capital funds" has the meaning determined by the Bank under section 28 of the Act

"Exposure" has the meaning determined by the Bank under section 1 of the Act

"Grandfathered provisions" means activities prohibited by law, regulation or agreement, but approved for banking institutions that were already engaged in those activities as of a specific date

"Geographic distribution" means geographical areas on which the banking institution's portfolio is geographically managed in this case banking institutions may use the same maturity groupings used in accounting

"Materiality" means where information, 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 economic or investment decisions

"Wrong way risk exposure" means when an exposure to a counterparty is adversely correlated with the credit quality of that counterparty

PART II: STATEMENT OF POLICY

5. **Purpose** - Subject to the provisions of this Determination, all banking institutions shall disclose in its annual financial statements and other disclosures to the public, reliable, relevant and timely qualitative and quantitative information that will enable users of the information, among others, to make an accurate assessment of the banking institution's financial condition, performance, business activities, risk profile and risk management practices.

6. **Scope** - This Determination applies to additional disclosure requirements for banking institutions in their financial statements to the public over and above that required by other Determinations, Regulations and Circulars.

7. **Responsibility**

The board of directors and senior management of each banking institution shall be responsible for compliance with the requirements of this Determination, provided that -

(a) A formal disclosure policy to promote market discipline is formulated, as a minimum, which shall be subject to board approval and periodic review;

(i) The policy shall describe the banking institution's objectives and strategies for public disclosure of information on its financial condition and performance;

(ii) Shall specify the approach adopted to determine the materiality, nature and extent of information that will be disclosed to the public;

(iii) Shall be sufficiently robust to ensue that the banking institution –

(A) establishes and maintains appropriate internal control processes and procedures relating to the qualitative and quantitative nature of information disclosed;

(B) assesses on a regular basis the appropriateness of the information disclosed to the public;

(C) establishes and maintains an appropriate process to validate the information disclosed to the public;

(D) regular assesses the frequency and materiality of information disclosed to the public;

(E) is able to continuously determine the extent to which the required information may already be included in the banking institution's accounting disclosure requirements

and to what extent the banking institution has to disclose information in addition to the banking institution's accounting disclosure requirements;

(b) When compliance with the minimum required information specified in paragraph (8) below is not adequate to provide a fair reflection of the banking institution's financial condition, performance, business activities, risk profile and risk management practices, the banking institution shall disclose the relevant additional information as per paragraph 8. All banking institutions annual financial statements and other disclosures to the public shall reflect each material item separately;

(c) The minimum required publicly disclosed information, amongst others, shall be consistent with the manner in which the board of directors and senior management of the banking institution assess and manage the banking institution's risk exposures;

(d) The banking institution shall on a regular basis, but not less frequent than –

(i) once a year within 90 days after the financial year end disclose to the public quantitative and qualitative information in respect of the banking institution's risk management objectives and policies, reporting system and general definitions;

(ii) semi-annually within 60 days after period end disclose to the public quantitative information in respect of –

(A) the banking institution's permanent (Tier 1) and supplementary (Tier 2) capital, including the capital ratios thereof;

(B) the banking institution's total capital, including the total risk based capital ratio;

(C) the banking institution's separate components of capital;

(D) the total required amount of capital funds; and

(E) any risk exposure or other item that is subject to rapid or material changes;

(iii) ;

(e) At the discretion of the banking institution's management, banking institutions may determine the appropriate medium (i.e. newspaper and/or electronic media and/or annual reports) and location to disclose the required information to the public;

(f) In respect of the annual (once a year) reporting a banking institution's disclosure to the public in terms of this Determination shall be consistent with the audited financial statements and subject to appropriate internal controls and validations.

(g) Where the additional information required to be disclosed by banking institutions in terms of the provisions of this Determination differs from

any prescribed listing requirements or disclosure requirements in terms of International Financial Reporting Standards, a banking institution shall in an appropriate manner explain any material differences between such disclosures;

(h) Prior written notification should be given by banking institutions and/or subject to such conditions as may be specified in writing by the Bank, the requirements of this Determination shall place no additional duties on banking institutions to disclose to the public information of a proprietary or confidential nature, that is –

(i) information that if shared with competitors (for example on products or systems) is likely to render the banking institution's investments in such products or systems less valuable or undermine the competitive position of the banking institution; or

(ii) information that is provided in terms of legal agreements or counterparty relationships;

(iii) the banking institution shall report to its board of directors on the processes for assessing the appropriateness of its disclosure, including the frequency of disclosure.

(j) except for information that forms part of a banking institution's audited financial statements as a result of requirements relating to International Financial Reporting Standards, unless otherwise specified in writing by the Bank, the required additional information that has to be disclosed by the banking institution to the public annually (i.e. once a year) in terms of the provisions of this Determination is required to be, subject to external audit.

PART III: IMPLEMENTATION AND SPECIFIC REQUIREMENTS

8. Public Disclosure of Information

This Determination is intended to set out additional disclosure requirements aimed at ensuring timely reporting of comprehensive, meaningful and accurate information which provides strong market discipline on banking institutions to manage their activities and risk exposures prudently and consistently with their stated objectives. The Determination is also designed to promote standardisation in the presentation of information, thereby facilitating comparability between banking institutions. All banking institutions are expected to comply with or adhere, as a minimum, to the provisions set out in this Determination.

(a) Scope of application

All banking institutions in respect of the required –

(i) Qualitative information, disclose to the public –

(A) The name(s) of the controlling company in the group structure to which the requirements of this Determination will apply;

(B) An explanation of differences between the manner in which entities are consolidated for accounting and regulatory purposes, together with a brief description of the entities within the group –

(i) that are fully consolidated;

(ii) that are pro-rata consolidated;

(iii) that are subject to deduction treatment;

(iv) from which surplus capital is recognised as qualifying capital funds;

(v) that are neither consolidated nor deducted (i.e. the banking institution's investment in the entity is risk-weighted)

(C) Sufficient detailed information in respect of any restrictions or other impediments on the transfer of funds or regulatory capital within the group;

(ii) Quantitative information, disclose to the public –

(A) In case a subsidiary is carrying on insurance business, the aggregate amount of surplus capital recognised in the capital funds of the consolidated banking group, that is, the difference between the amount invested in the insurance entity and their regulatory capital requirements;

(B) In case of a subsidiary, where the invested amount is deducted from capital funds, rather than being consolidated –

(i) the aggregate amount relating to capital deficiencies, that is, the amount by which the subsidiary's capital requirements exceeds the investment amount; and

(ii) the name(s) of such subsidiaries

provided that any capital deficiencies that has been deducted on a group level in addition to the investment in such a subsidiary shall not be included in the aggregate amount relating to a capital deficiency.

(C) In case of an investment in an entity that conducts insurance business, where the investment is risk-weighted, rather than deducted from capital funds or subject to an alternative method of consolidation in accordance with the Consolidated Supervision Framework –

(i) the aggregate amount, that is, the book value of the said investment;

(ii) the country of incorporation or residence;

(iii) the proportion of ownership interest and, where different, the proportion of voting rights in such entity; and

(iv) the quantitative impact in respect of qualifying capital funds as a result of the investment being risk-weighted, rather than being deducted from capital funds.

(b) Financial performance

In respect of semi-annual and annual reporting, the performance overview shall be set out in the form of a table with two columns headed: area of performance, and performance to date.

The areas of performance could include revenue growth, expense growth (operating expense growth compared to operating revenue growth), productivity (ratio of non-interest expenses to net interest income plus other income), return on equity, return on average assets, portfolio quality (ratio of specific provision for credit losses to average loans; ratio of net impaired loans to average loans), and capital management (Tier 1, Tier 2, Tier 3 and total capital ratios i.e. unused Tier 3).

(c) Financial position, including

(i) Capital structure

All banking institutions shall be required in respect of –

(A) Qualitative information, to disclose to the public adequately detailed information relating to the terms and conditions of all capital instruments issued by the banking institution, particularly in respect of innovative, complex or hybrid capital instruments;

(B) Quantitative information, to disclose to the public the amount relating to –

(i) permanent capital funds, including information in respect of:

(aa) paid-up share capital, including ordinary shares;

(bb) reserve funds;

(cc) minority interest in the equity of subsidiaries;

(dd) other instruments qualifying for inclusion in Tier 1 capital;

(ee) surplus capital from insurance companies;

(ff) regulatory calculation difference deducted from Tier 1 capital; and

(gg) other amounts deducted from Tier 1 capital, including goodwill and investments

(ii) supplementary and tertiary capital (Tier 2 and Tier 3);

(iii) deductions from the banking institutions supplementary capital and reserve funds and tertiary capital; and

(iv) total qualifying capital.

(ii) Capital adequacy;

All banking institutions shall be required to disclose to the public in respect of –

(A) Qualitative information, adequately detailed information in respect of the banking institution's approach to assess the adequacy of the banking institution's capital in order to support their current and future activities;

(B) Quantitative information,

(i) the banking institution's capital requirements in respect of credit risk, including adequately detailed information in respect of -

(aa) their portfolio subject to the standardised approach, disclose ;

(bb) the banking institution's securitisation exposures;

(cc) the equivalent risk weighted assets for credit risk

(ii) the banking institution's capital requirements in respect of the positions held in the banking institution's trading book subject to the standardised approach;

(aa) the banking institution's capital requirements; and

(bb) the equivalent of risk weighted assets in respect of market risk.

(iii) the banking institution's capital requirements in respect of operational risk, with separate disclosure in respect of –

(aa) basic indicator approach; or

(bb) standardised approach; and

(cc) the equivalent risk weighted assets for operational risk

(iv) adequately detailed information in respect of the banking institution's total capital adequacy ratio and permanent capital adequacy ratio (i.e. tier 1 capital ratio), including the components relating to the innovative capital instruments in respect of –

(aa) the controlling company/ banking group; and

(bb) significant banking institution subsidiaries, either based on a stand-alone basis or sub-consolidation basis depending on the required manner of reporting in respect of such subsidiaries.

(iii) Liquidity

All banking institutions shall be required to disclose to the public

(A) Qualitative information in respect of –

(i) the formulation of a liquidity policy, the board and management's responsibility for the establishment, review and implementation of the policy, including, a description of policies, performance and procedures in place with respect to:

(aa) controlling the cash flow mismatches between on- and off-balance sheet assets and liabilities;

(bb) maintaining stable and diversified sources of funding;

(cc) accessing alternative sources of funds, if required;

(dd) controlling undrawn or unrealized commitments given; and

(ee) stress testing results.

(d) Types of risk to which the banking institution is exposed;

In respect of each type of risk that the banking institution is exposed, for example, credit, market, operational, interest rate risk in the banking book or foreign currency risk, a banking institution shall disclose adequately detailed information in respect of the banking institution's risk management objectives and policies, including information in respect of –

(i) the banking institution's strategies and processes;

(ii) the structure and organisation of the relevant risk management functions;

(iii) the scope and nature of the banking institution's risk reporting and/or risk measurement systems;

(iv) the banking institution's policies relating to hedging and/or risk mitigation and the banking institution's strategies and processes in order to monitor the continued effectiveness of the hedges or risk-mitigation instruments.

(e) Nature and extent of risk exposures, including -

(i) Credit risk,

All banking institutions shall in the case of –

(A) credit risk exposures, excluding credit risk arising from positions held in equity instruments, disclose to the public the qualitative and quantitative information specified below.

(i) Qualitative information

(aa) All banking institutions shall in addition to the information specified in paragraph (d) above, disclose to the public adequately detailed information in respect of –

(i) the banking institution's accounting and regulatory definitions in respect of impairments and past due, respectively;

(ii) the approaches adopted by the banking institution in respect of credit impairment, including specific and general allowances, as well as relevant information in respect of statistical methods applied by the banking institution; and

(iii) a general discussion on the banking institution's credit risk management policy.

(ii) Quantitative information

All banking institutions –

(aa) shall be required to disclose to the public in respect of its major types of credit exposure, adequately detailed information relating to –

(i) the aggregate amount of gross credit exposures after the effect of set-off in accordance with the International Financial Reporting Standards have been taken into account, but before the effects of credit risk mitigation techniques such as collateral or netting have been accounted for;

(ii) the banking institution's average amount of gross exposure during the reporting period, where the average gross exposure shall be calculated in a daily average basis, unless the exposures at the end of the reporting period in all material respects represent the average credit exposure amount during such reporting period in which case the banking institution need not disclose the said average exposure amount, provided that where the banking institution is unable to calculate the average exposure amount on a daily average basis the banking institution shall disclose to the public the basis used in calculating such average exposure amounts;

(iii) The geographic distribution of the banking institution's credit exposure, where the distribution shall be based on the relevant requirements specified in the Determination on Asset Classification, Suspension of Interest and Provisioning (BID-2) and Determination on Country Risk (BID-17).

(iv) the distribution of exposures based on industry or counterparty type;

(v) the maturity breakdown of the banking institution's whole credit portfolio, where the maturity breakdown shall be based on the residual contractual maturity of the said exposures;

(bb) shall in respect of each major industry, counterparty type or geographical area disclose to the public adequately detailed information in respect of the aggregate amount relating to –

(i) impaired loans and past due loans, including and analysis of the ageing of past due loans;

(ii) any credit impairment, including any specific or general allowances;

(iii) any charges for specific allowances and charge-offs during the reporting period,

provided that, the banking institution shall separately disclose the unallocated portion of general allowances, that is, the portion of general allowances not allocated to a specific industry, counterparty or geographical area;

(cc) shall provide a separate reconciliation of changes in specific and general allowances, where the reconciliation shall include –

(i) a description of the type of allowance;

(ii) opening balance of the allowance;

(iii) charge-offs taken against the allowance during the reporting period;

(iv) amounts set-aside or reversed for estimated probable loan losses during the reporting period;

(v) any other adjustments such as exchange rate differences, business combinations, acquisitions and disposals of subsidiaries, including transfers between allowances; and

(vi) the relevant closing balance of the allowance,

provided that, the banking institution shall separately disclose any charge-offs and recoveries that have been recorded directly in the income statement;

(dd) shall in respect of each relevant credit portfolio disclose to the public the relevant amounts of exposure that are subject to the standardised approach.

(B) portfolios subject to the standardised approach be required to disclose to the public based on the qualitative and quantitative criteria specified below.

(i) Qualitative information

All banking institutions shall in the case of credit portfolios subject to the standardised approach, disclose to the public adequately detailed information in respect of –

(aa) the names of the external credit assessment institutions used by the banking institution, and in case of any changes made by the banking institution in respect of such external credit assessment institutions, the reasons for such a change;

(bb) the type of exposure for which the banking institution uses a particular agency;

(cc) the process followed by the banking institution to assign publicly issued rating to comparable assets in the banking institution's banking book;

(dd) any mapping of exposures, that is, the alignment between the alphanumerical rating scale of each relevant rating agency used by the banking institution and the banking institution's relevant risk categories, unless the banking institution conducts its mapping of credit exposures in accordance with the mapping procedures specified by the Bank from time to time;

(ee) the risk weights associated with a particular rating grade or risk category.

(ii) Quantitative information

All banking institutions in the case of –

(aa) exposures subject to the standardised approach, separately disclose to the public –

(i) the outstanding amount after risk mitigation in respect of rated and unrated exposures relating to each relevant risk category;

(ii) any exposure amount that is deducted from the banking institution's capital funds;

(bb) equity exposures subject to the simple risk weight method, disclose to the public the aggregate outstanding amount in respect of each relevant risk category.

(C) Credit risk mitigation in terms of the standardised approach, excluding any risk mitigation that falls within the ambit of the exemption relating to securitisation schemes, disclose to the public adequately detailed information in respect of the qualitative and quantitative information specified below.

(i) Qualitative information

All banking institutions shall in addition to the information specified in paragraph (d) above, disclose to the public adequately detailed information in respect of –

(aa) the banking institution's policies and processes relating to on- and off- balance sheet netting, including the extent to

the banking institution makes use of on- and off- balance sheet netting when the banking institution determines its exposure to credit risk;

(bb) the banking institution's policies an processes relating to the valuation and management of collateral, including a description of the main types of collateral accepted by the banking institution;

(cc) the main types of guarantors or credit-derivative counterparties involved in the banking institution's risk mitigation activities, and the creditworthiness of the said parties; and

(dd) any risk concentration incurred in respect of the banking institution's risk mitigation activities.

(ii) Quantitative information

All banking institutions shall in respect of each separately identified credit portfolio in terms of the standardised approach disclose to the public the banking institution's total exposure after the effect of any on- and off- balance sheet netting has been taken into account, with an indication of exposures protected by way of –

(aa) eligible financial collateral, after the application of any haircuts; and

(bb) guarantees and credit derivative instruments.

(D) exposure to counterparty credit risk, disclose to the public adequately detailed information in respect of the qualitative and quantitative information specified below.

(i) Qualitative information

In respect of derivative instruments and exposures relating to counterparty credit risk, banking institutions shall in addition to the information specified in paragraph (d) above, disclose to the public adequately detailed information relating to –

(aa) the methodology adopted by the banking institution in order to assign economic capital and credit limits in respect of the banking institution's exposures to counterparty risk;

(bb) the banking institution's policies in order to secure collateral and to establish adequate credit reserves;

(cc) the banking institution's policies with respect to the identification, measurement and control of wrong-way risk exposures;

(dd) the estimated amount of collateral the banking institution would have provided, given a credit rating downgrade.

(ii) Quantitative information

All banking institutions –

(aa) shall disclose to the public adequately detailed information relating to –

(i) the gross positive fair value[1] of all relevant contracts that expose the banking institution to counterparty credit risk;

(ii) any relevant netting benefits;

(iii) the netted amount of current credit exposure;

(iv) collateral held, including the type of collateral held such as cash or government securities;

(v) the net amount of derivative credit exposure, that is, the amount of credit exposure in respect of derivative transactions after the benefits relating to legally enforceable netting agreements and collateral agreements have been taken into account;

(vi) the notional value of credit derivative hedges;

(vii) the distribution of current credit exposures, where the distribution shall be based on the relevant types of credit exposure, that is, for example, interest rate contracts, foreign exchange contracts, equity contracts, credit derivative instruments or commodity contracts.

(bb) shall in respect of the current exposure method, standardised method, as the case may be, disclose to the public adequately detailed information relating to the relevant exposure amount, that is, the estimated exposure at default;

(cc) shall, based on the relevant types of credit derivative products, that is, for example, credit default swaps, credit options or total return swaps, disclose to the public adequately detailed information relating to credit derivative transactions or contracts that expose the banking institution to counterparty credit risk, including any relevant notional amounts, provided that within the said product type the banking institution shall distinguish between –

(i) instruments used as part of the banking institution's own credit portfolio and instruments used as part of the banking institution's intermediate activities;

[1] This might be interest rate contracts, foreign exchange contracts, equity contracts, credit derivatives, and commodity and other contracts

(ii) protection bought and protection sold.

(dd) that obtained the approval of the Bank to estimate an alpha factor for the measurement of the banking institution's exposure to counterparty credit risk shall disclose the banking institution's said estimate of alpha.

(E) credit risk arising from positions held in equity instruments, disclose to the public the qualitative and quantitative information specified in subparagraph (ii) below.

(ii) Market risk,

All banking institutions –

(A) that adopted the standardised approach for the measurement of the banking institution's exposure to market risk in respect of positions held by the banking institution in the trading book shall disclose to the public adequately detailed information in respect of the qualitative and quantitative information specified below.

(i) Qualitative information

All banking institutions shall in addition to the qualitative and quantitative information specified in the paragraphs above, disclose information relating to the portfolio/instruments that are subject to the standardised approach.

(ii) Quantitative information

All banking institutions shall disclose to the public detailed quantitative information in respect of the banking institution's capital requirements relating to:

(aa) interest rate risk;

(bb) equity positions risk;

(cc) foreign exchange risk; and

(dd) commodity risk.

(B) shall in respect of the equity positions held in the banking institution's banking book, disclose to the public adequately detailed information in respect of the qualitative and quantitative information specified below.

(i) Qualitative information

All banking institutions shall in addition to the qualitative information specified in paragraph (d) above, disclose to the public adequately detailed information in respect of the banking institution's accounting policies, including –

(aa) the manner in which the banking institution values and accounts for equity positions held in the banking book, that

is, the accounting technique and valuation methodology used by the banking institution;

(bb) key assumptions made and practices adopted by the banking institution, where practices may affect the valuation of the said equity positions, and any significant changes made by the banking institution in respect of such practices,

provided that, the banking institution shall differentiate between equity positions in respect of which the banking institution expects to realise capital gains and equity positions held for other reasons, such as strategic positioning or in order to establish a particular relationship.

(ii) Quantitative information

All banking institutions –

(aa) shall disclose to the public –

(i) the value at which investments held in the banking institution's banking book is disclosed in the banking institution's balance sheet, and the fair value of the said investments, provided that when the share price of listed instruments materially differs from the fair value of the instrument the banking institution shall provide a comparison between the listed share price and the fair value of the said instrument;

(ii) the cumulative amount of gains/losses realised by the banking institution from the sale/liquidation of positions held in the banking institution's banking book during the reporting period;

(iii) the total amount relating to unrealised gains/losses, that is, unrealised gain/losses recognised directly in a banking institution's balance sheet instead of the income statement;

(iv) the total amount relating to latent revaluation gains/losses, that is, unrealised gains/losses not recognised in either the banking institution's balance sheet or income statement;

(v) the extent to which the banking institution included unrealised gains/losses referred to in items (iii) and (iv) above in the core and supplementary capital funds of the banking institution;

(vi) based on the approach adopted by the banking institution, the banking institution's capital requirements in respect of the various equity positions held in the banking institution's banking book;

(bb) shall distinguish between the various types of instruments held in the banking institution's banking book, and the nature of the said investments, including the amounts relating to –

(i) publicly traded instruments; and

(ii) privately traded instruments.

(iv) Interest-rate risk,

All banking institutions shall in respect of positions held in the banking book –

(A) in addition to the qualitative information specified in paragraph (d) above, disclose to the public adequately detailed information relating to –

(i) the nature of the banking institution's exposures to interest rate risk;

(ii) key assumptions made by the banking institution, including assumptions relating to loan repayments and the behaviour of core deposits, that is deposits that are not drawn in accordance with contractual provisions of the deposits and where deposits are regarded as "permanent" funding;

(iii) the frequency with which the banking institution measures its exposures to interest-rate risk.

(B) disclose to the public, quantitative information in respect of the increase or decrease in earnings, economic value or the relevant measure used by the management of the banking institution, relating to a standardised upward and downward interest rate shock specified in Determination on Interest Rate Risk in the Banking Book or in writing by the Bank, provided that the banking institution shall break the required information down based on each relevant currency.

(v) Operational risk,

All banking institutions – shall in addition to the qualitative information specified in paragraph (d) the above, disclose to the public adequately detailed information relating to the standardised approach adopted by the banking institution for the measurement of it's exposure to operational risk, unless that banking institution obtained the prior written approval of the Bank to apply a different approach, the banking institution shall provide adequately detailed information in respect of the scope and coverage of the approach used by the banking institution;

(vi) Securitisation,

All banking institutions that adopted the standardised approach for the measurement of the banking institutions exposure to risk arising from a traditional or synthetic securitisation scheme shall disclose to the public the qualitative and quantitative information specified below.

(i) Qualitative information

All banking institutions –

(aa) shall in addition to the information specified in paragraph (d) above, disclose to the public adequately detailed information in respect of –

(i) the banking institution's objectives in respect of securitisation schemes, including the extent to which the banking institution successfully achieves a transfer or credit risk to external entities;

(ii) the role(s) played by the banking institution in respect to a securitisation scheme, for example, the role of –

- an originator;
- an investor;
- a servicer;
- a provider of credit enhancement;
- a sponsor of asset-backed commercial paper facility;
- a liquidity provider;
- a swap provider,

and an indication of the extent of the banking institution's involvement in each of the roles specified in sub-item (ii) above.

(iii) the approach adopted by the banking institution in respect of exposures arising from securitisation activities, that is, whether the banking institution, for example, adopted the standardised formula.

(bb) shall provide summary information in respect of the banking institution's accounting policies relating to securitisation activities including –

(i) whether the said securitisation transactions are treated as sales or financing;

(ii) information relating to the recognition of gains in respect of sales;

(iii) key assumptions made by the banking institution for the valuing of retained interests, including any significant changes made by the banking institution since the previous reporting period, and the impact of such changes; and

(iv) the manner in which the banking institution treats exposures that arise from a synthetic securitisation scheme, unless such information is disclosed as part of other accounting policies, such as policies in respect of derivative instruments.

(cc) shall disclose the names of external credit assessment institutions used by the banking institution in respect of securitisation transactions and the types of securitisation exposure for which a particular agency is used.

(ii) Quantitative information

All banking institutions –

(aa) shall in respect of exposures securitised, where exposures are subject to exemption notice relating to securitisation schemes, as determined by the Bank, based in exposure type, that is, for example, exposure relating to credit cards, residential mortgage loans or vehicle finance, disclose to the public -

(i) the total outstanding amount in respect of exposures securitised by the banking institution provided that the banking institution shall distinguish between exposures relating to -

- a traditional securitisation scheme; and
- a synthetic securitisation scheme;

(ii) the aggregate amount in respect of –

(a) impaired or past due assets securitised;

(b) losses recognised by the banking institution during the reporting period, including, for example, amounts written-off or provisions raised for potential loss in respect of exposures that remained on the banking institutions balance sheet or credit-enhancing interest-only

strips, that is, an on-balance sheet asset that is based on the valuation of future cash flows relating to margin income, where assets are subordinated, and other residual interests; and

(c) exposures retained or purchased, including, for example, commercial paper issued by the relevant special-purpose institution, liquidity facilities, credit enhancement such as interest-only strips, cash collateral accounts and other subordinated instruments;

(bb) shall separately disclose information relating to –

(i) a securitisation transaction in respect of which the banking institution acted as an originator but in respect of which the banking institution did not retain any exposure, provided that such information shall be reported on in respect of the reporting period during which the securitisation transaction was concluded;

(ii) transactions in respect of which the banking institution acted only as a sponsor;

(iii) securitisation transactions concluded during the reporting period, including the amount of exposures securitised and any related recognised gains and losses provided that the banking institution shall distinguish between exposures or asset types;

(cc) that the adopted standardised approach for the measurement of the banking institutions exposures to risk relating to assets or exposures securitised –

(i) shall in addition to the aggregate amount of exposures retained or purchased disclose to the public the associated capital requirements relating to the said exposure(s) provided that the banking institution –

(a) shall break the required information down into a meaningful number of risk categories; and

(b) based on the underlying asset type, shall separately disclose

information relating to exposures deducted from capital funds.

(ii) based on the underlying asset type, shall in case of securitisation exposures that are subject to an early amortisation mechanism, disclose to the public the aggregate amount relating to –

(a) drawn exposures attributed to the seller's and investors' interest;

(b) the capital requirements maintained by the banking institution in respect of the retained share of the drawn balances and undrawn commitments, that is, the seller's interest; and

(c) the capital requirement maintained by the banking institution in respect of the investor's share of the drawn amounts and undrawn commitments.

(vii) Other material risks to which the banking institution is exposed;

(f) To the extent not already covered by the information required to be disclosed in terms of the provision of paragraphs (a) to (e) above, an overview of the key aspects relating to –

(i) the organisational structure relevant to risk management and control, including relevant risk-management strategies, policies and practices;

(ii) the methods used to measure and manage risks;

(iii) the principal accounting policies and procedures relevant to the interpretation of the banking institution's risk exposures; and

(iv) basic business, management and corporate governance information;

(v) the manner in which the banking institution treats insurance entities when the banking institution calculates its required capital funds.

9. Reporting requirements

Banking institutions shall within the period specified below, submit a copy of the documents referred to, to the Bank, in terms of the requirements of section 47 of the Banking Institutions Act of 1998 (Act No. 2 of 1998), as amended.

9.1 Annual financial statements

(i) Unless deviation is specifically authorised by the Act or the Bank, the annual financial statements of a banking institution or controlling company shall be compiled in accordance with the International Financial Reporting Standards issued from time to time, with additional disclosure when required, provided that in the absence of a specific International Financial Reporting Standard and an approved interpretation reference shall be made to the relevant pronouncements of the International Accounting Standards Board.

(ii) When the Act or the Bank authorises a deviation as envisaged in sub-paragraph (i), the said banking institution or controlling company shall in writing inform its auditors of such authorisation.

(iii) Annual financial statements in respect of all subsidiary companies of a banking institution or controlling company shall be made available by such a banking institution or controlling company for submission to the Bank when required by the Bank, and the information reported on the respective statutory returns shall inter alia reflect such financial statements.

(iv) Where relevant, interim reports of a banking institution or controlling company shall be prepared in accordance with the specific International Financial Reporting Standards issued from time to time in respect of interim reports, with additional disclosures as required, provided that –

(a) in the absence of International Financial Reporting Standards on interim reports in Namibia and an approved interpretation, reference shall be made to the relevant pronouncements of International Accounting Standards Board;

(b) the said interim reports shall be submitted to the Bank as soon as they become available.

9.2 Consolidated financial statements

(i) All banking institutions or in the case of a group of banking institutions the relevant controlling company shall within three months after the financial year end of such banking institutions, as the case may be, furnish the Bank with the consolidated annual financial statements, as prescribed in sub-paragraph (2), (3) and (4), whether or not such a banking institution or controlling company in the preparation of its annual financial statements avails itself of any exemption granted under section 15A(1) of the Companies Act, 1973, as amended from time to time.

(ii) The consolidated annual financial statements referred to under sub-paragraph (i) shall duly present the state of affairs and the results of operations in respect of the banking business and all other business activities conducted by –

(a) the reporting banking institution and all its subsidiaries, or the reporting controlling company and all its subsidiaries, as the case may be;

(b) when applicable, the following associates of such reporting banking institutions and its subsidiaries or of such reporting controlling company and its subsidiaries, as the case may be:

- a company or other incorporated business undertaking in respect of the issued share capital of which the reporting banking institution and its subsidiaries or the reporting controlling company and its subsidiaries jointly hold more than 20 percent, but not more than 50 percent;

- a trust or other unincorporated business undertaking in which the reporting banking institution and its subsidiaries or the reporting controlling company and its subsidiaries jointly hold an interest of more than 20 percent, whether as beneficiary or ultimate beneficiary in the case of a trust, or as a partner in the case where such other unincorporated business undertaking is a partnership; and

(c) associates referred to in paragraph (b) above, the business activities and financial affairs of which the reporting banking institution and its subsidiaries or the reporting controlling company and its subsidiaries are able to materially influence.

(iii) The consolidated annual financial statements shall be prepared in accordance with the International Financial Reporting Standards issued from time to time, with additional disclosure when required, provided that in the absence of a specific International Financial Reporting Standard in Namibia and an approved interpretation, reference shall be made to the relevant pronouncements of the International Accounting Standards Board, and shall reflect the Namibian Dollar amounts in units of thousands.

9.3 Audit reports

(i) The auditor of a banking institution shall annually, within three months after the financial year-end of the reporting banking institution, in addition to any report that a banking institution is by law required to obtain from the auditor, report on the banking institution's financial position and results of its operations, as reflected in the returns specified in sub-paragraph (vi) below that were submitted to the Bank as at financial year-end of the reporting banking institution.

(ii) Notwithstanding the provisions of sub-paragraph (i) above the auditor shall also report whether, in the auditor's opinion, the information contained –

(a) in the statutory returns at year-end in all material respects –

- reasonably reflects the information of the management accounts;
- is complete in so far as all relevant information contained in the accounting records at the reporting date has been extracted from, the accounting and other records at the reporting date and recorded in the statutory returns;
- is accurate in so far as it correctly reflects all relevant information contained in, and extracted from, the accounting and other records at the reporting date;
- is prepared using the same accounting policies as those applied in the management accounts; and
- is prepared in accordance with the directives and instructions of the Act and the relevant Determinations.

(b) In the statutory returns other than at year-end in all material respects –

- reasonably reflects the information of the management accounts;
- is prepared using the same accounting policies as those applied in the management and statutory accounts; and
- is prepared in accordance with the directive and instructions of the Act and the Determinations.

(iii) Notwithstanding the provisions of sub-paragraph (ii) above, the auditor shall annually report to the Bank on any significant weaknesses in the system of internal controls relating to –

(a) financial regulatory reporting; and

(b) compliance with the Act and Determinations,

that came to the auditor's attention while performing the necessary audit procedures to enable the auditor to furnish the report required under sub-paragraph (ii) above, within three months after the financial year-end of the reporting banking institution.

(iv) Notwithstanding the provisions of sub-paragraph (i), (ii) and (iii) above, the auditor shall annually, within three months after the financial year-end of the reporting banking institution, report to the Bank on any significant weaknesses in the system of internal controls that came to the auditor's attention while performing the

necessary auditing procedures with regard to the policies, practices and procedures of the banking institution relating to –

(a) granting of loans;

(b) the making of investments;

(c) the ongoing management of the loan and investment portfolios; and

(d) the relevant credit impairments or loan loss provisioning.

(v) In the case of revisions having been effected by the reporting banking institution to statutory returns submitted by it during the course of the financial year, the auditor shall, where required to do so in terms of a written request by the Bank to both the reporting banking institution and the auditor, in writing confirm that the auditor has verified such revisions as have been specified by the Bank in the written request.

(vi) The audit report contemplated in sub-paragraph (i) above shall be rendered in accordance with the wording and practices recommended from time to time by the Institute of Chartered Accountants in Namibia, and shall in respect of all statutory returns as named in BID-10 submitted in respect of the reporting banking institution and bank controlling company and other relevant operations in Namibia and elsewhere in the world.

(vii) These statutory returns shall be reconcilable, and the auditor shall within three months after the financial year-end of the reporting banking institution, furnish the Bank with a written report which states whether or not all statutory returns submitted by the reporting banking institution during the financial year under review were in fact reconcilable.

(viii) Notwithstanding the provisions of sub-paragraphs (i) to (vii) above, the auditor shall annually, within three months after the financial year-end of the reporting banking institution, report to the Bank whether there are any instances of non-compliance with the requirements specified in the relevant Determinations.

(ix) For the purposes of the performance of the auditor's duties in terms of these requirements, the auditor –

(a) shall hold preliminary discussions with the Bank prior to the commencement of the said audit;

(b) shall obtain from the Bank, copies of the relevant returns submitted to the Bank by the reporting banking institution or controlling company during the financial year under review.

PART IV: CORRECTIVE MEASURES

10. **Remedial measures** - If a banking institution fails to comply with this Determination, 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.

PART V: EFFECTIVE DATE

11. **Effective date** - The effective date of this Determination shall be 1 January 2010.

Questions relating to this Determination should be addressed to the Director, Banking Supervision Department, Bank of Namibia, Tel: 283-5040.

BANK OF NAMIBIA

No 294 2009

DETERMINATIONS UNDER THE BANKING INSTITUTIONS ACT, 1998
(ACT NO. 2 OF 1998): INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS

In my capacity as Governor of the Bank of Namibia (Bank), and under the powers vested in the Bank by virtue of section 71(3) of the Banking Institutions Act, 1998 (Act No. 2 of 1998), I hereby issue this **General Determination on Internal Capital Adequacy Assessment Process (BID-20**).

T.K. ALWEENDO
GOVERNOR

Determination No. BID-20

INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS

Arrangement of Paragraphs

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Preliminary

PARAGRAPHS

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PART I: PRELIMINARY

1. **Short Title** – ICAAP

2. **Authorization** – Authority for the Bank to issue this Determination is provided in Section 71(3) of the Banking Institutions Act, 1998 (Act).

3. **Application** – This Determination applies to all banks authorized by the Bank to conduct banking business in Namibia and banking groups to which they belong.

4. **Definitions** – Terms used within this Determination are as defined in the Act, as further defined below, or as reasonably implied by contextual usage:

4.1 **"bank"** – means banking institution as defined in Section 1 of the Act.

4.2 **"ICAAP"** – means internal capital adequacy assessment process.

4.3 **"SREP"** – means supervisory review and evaluation process conducted by the Bank for the purpose of reviewing and monitoring the ICAAP.

PART II: STATEMENT OF POLICY

5. **Purpose** – This Determination is intended to ensure that banks put in place a consistent approach, process and methods for proactive internal capital planning, capital adequacy assessment and maintenance of capital adequacy. It is also intended to ensure that institutions undertake risk-based capital allocations in relation to all material risks.

6. **Scope** – This Determination applies to all banks authorized and operating in Namibia.

7. **Responsibility** – The board of directors of each bank shall be responsible for developing policies, cause the implementation of sound risk management programs and ensuring that the bank has adequate capital to support its risks.

PART III: IMPLEMENTATION AND SPECIFIC REQUIREMENTS

8. Introduction

The ICAAP is one of the important components of Pillar 2. Broadly, the ICAAP comprises a bank's procedures and measures designed to ensure that a) an appropriate identification and measurement of risks; b) an appropriate level of internal capital in relation to the bank's risk profile; and c) application and further development of suitable risk management systems in the bank. This determination seeks to provide broad guidance to the banks by outlining the expected scope and design of a banks' ICAAP, and the expectations of the Bank with regard to implementation of the ICAAP.

The Bank's responsibility is to review and evaluate the ICAAP. Through the SREP, the Bank will evaluate the adequacy and efficacy of ICAAP and will also involve an interactive dialogue with the bank management from time to time.

9. The structural aspects of ICAAP

This section outlines the broad parameters of the ICAAP that the banks are required to comply with in designing and implementing their ICAAP.

9.1 Every bank shall have an ICAAP

Reckoning that the Basel II framework is applicable to all banking institutions in Namibia, the ICAAP should be prepared, on a solo basis for each banking entity within the banking group, and also at the level of the consolidated bank (i.e., a group of entities where the authorised bank is the controlling entity). This requirement would also apply to the foreign banks which have a branch presence in Namibia and their ICAAP should cover their Namibian operations only.

9.2 ICAAP to be a Board-approved process

The ultimate responsibility for designing and implementation of the ICAAP lies with the board of directors of a bank. The structure, design and contents of a bank's ICAAP should be approved by the board of directors to ensure that the ICAAP forms an integral part of the management process and decision making culture of the bank. Since a sound risk management process provides the basis for ensuring that a bank maintains adequate capital, the board of directors of a bank shall:

a) set the tolerance level for risk;

b) ensure that the senior management of the bank:

i establishes a risk framework in order to assess and appropriately manage the various risk exposures of the bank;

ii. develops a system to monitor the bank's risk exposures and to relate them to the bank's capital and reserve funds;

iii. establishes a method to monitor the bank's compliance with internal policies, particularly in regard to risk management;

iv. effectively communicates all relevant policies and procedures throughout the bank;

c) adopt and support strong internal controls;

d) ensure that the bank has appropriate written policies and procedures in place;

e) ensure that the bank has an appropriate strategic plan in place, which, *as a minimum*, shall duly outline

i. the bank's current and future capital needs;

ii. the bank's anticipated capital expenditure; and

iii. the bank's desired level of capital.

9.3 Review of the ICAAP outcomes

The board of directors shall, at least once a year, assess and document whether the processes relating the ICAAP implemented by the bank successfully achieve the objectives envisaged by the board. The senior management should also receive and review the reports regularly to evaluate the sensitivity of the key assumptions and to assess the validity of the bank's estimated future capital requirements. In the light of such an assessment, appropriate changes in the ICAAP should be instituted to ensure that the underlying objectives are effectively achieved.

9.4 ICAAP to be an integral part of the management and decision-making process

The ICAAP should form an integral part of the management and decision-making process of a bank. This integration could range from using the ICAAP to internally allocate capital to various business units, to having it play a role in the individual credit decision process and pricing of products or more general business decisions such as expansion plans and budgets. The integration would also mean that ICAAP should enable the bank management to assess, on an ongoing basis, the risks that are inherent in their activities and material to the institution.

9.5 The Principle of proportionality

The implementation of ICAAP should be guided by the principle of proportionality. Though the banks are encouraged to migrate to and adopt progressively sophisticated approaches in designing their ICAAP, the Bank would expect the degree of sophistication adopted in the ICAAP in regard to risk measurement and management to be commensurate with the nature, scope, scale and the degree of complexity in the bank's business operations. The following paragraphs **illustratively** enumerate the broad approach which could be considered by the banks with varying levels of complexity in their operations, in formulating their ICAAP.

9.5.1 In relation to a bank that defines its activities and risk management practices as **simple**, in carrying out its ICAAP, that bank could:

a) identify and consider that bank's largest losses over the last 3 to 5 years and whether those losses are likely to recur;

b) prepare a short list of the most significant risks to which that bank is exposed;

c) consider how the bank would act, and the amount of capital that would be absorbed in the event that each of the risks identified were to materialise;

d) consider how that bank's capital requirement might alter under the scenarios in (c) and how its capital requirement might alter in line with its business plans for the next 3 to 5 years; and

e) document the ranges of capital required in the scenarios identified above and form an overall view on the amount and quality of capital that the bank should hold, ensuring that its senior management is involved in arriving at that view.

9.5.2 In relation to a bank that define its activities and risk management practices as **moderately complex**, in carrying out its ICAAP, that bank could:

a) having consulted the operational management in each major business line, prepare a comprehensive list of the major risks to which the business is exposed;

b) estimate, with the aid of historical data, where available, the range and distribution of possible losses which might arise from each of those risks and consider using shock stress tests to provide risk estimates;

c) consider the extent to which that bank's capital requirement adequately captures the risks identified in (a) and (b) above;

d) for areas in which the capital requirement is either inadequate or does not address a risk, estimate the additional capital needed to protect that bank and its customers, in addition to any other risk mitigation action that bank plans to take;

e) consider the risk that the bank's own analyses of capital adequacy may be inaccurate and that it may suffer from management weaknesses which affect the effectiveness of its risk management and mitigation;

f) project that bank's business activities forward in detail for one year and in less detail for the next 3 to 5 years, and estimate how that bank's capital and capital requirement would alter, assuming that business develops as expected;

g) assume that business does not develop as expected and consider how that bank's capital and capital requirement

would alter and what that bank's reaction to a range of adverse economic scenarios might be;

h) document the results obtained from the analyses in (b), (d), (f), and (g) above in a detailed report for that bank's top management / board of directors; and

i) ensure that systems and processes are in place to review the accuracy of the estimates made in (b), (d), (f) and (g) (i.e., systems for back testing) vis-à-vis the performance / actuals.

9.5.3 In relation to a bank that define its activities and risk management practices as **complex**, in carrying out its ICAAP, that bank could follow a proportional approach to that bank's ICAAP which should cover the issues identified at (a) to (d) in paragraph 9.5.2 above, but is likely also to involve the use of models, most of which will be integrated into its day-to-day management and operations.

9.6 Regular independent review and validation

The ICAAP should be subject to regular review through an internal audit process, separately from the SREP conducted by the Bank, to ensure that the ICAAP is comprehensive and proportionate to the nature, scope, scale and level of complexity of the bank's activities so that it accurately reflects the major sources of risk that the bank is exposed to. A bank shall ensure appropriate and effective internal control structures, particularly in regard to the risk management processes, in order to monitor the bank's continued compliance with internal policies and procedures. As a minimum, a bank shall conduct periodic reviews of its risk management processes, which should ensure:

a) the integrity, accuracy, and reasonableness of the processes;

b) the appropriateness of the bank's capital assessment process based on the nature, scope, scale and complexity of the bank's activities;

c) the timely identification of any concentration risk;

d) the accuracy and completeness of any data inputs into the bank's capital assessment process;

e) the reasonableness and validity of any assumptions and scenarios used in the capital assessment process;

f) that the bank conducts appropriate stress testing;

9.7 ICAAP to be a forward-looking process

The ICAAP should be forward looking in nature, and thus, should take into account the expected / estimated future developments such as strategic plans, macro-economic factors, etc., including the likely future constraints in the availability and use of capital. As a minimum, the management of a bank shall develop and maintain an appropriate strategy that would ensure that the bank maintains adequate capital commensurate with the nature, scope,

scale, complexity and risks inherent in the bank's on-balance sheet and off-balance sheet activities, and should demonstrate as to how the strategy dovetails with the macro-economic factors. Thus, the banks shall have an explicit, board-approved capital plan which should spell out the institution's objectives in regard to level of capital, the time horizon for achieving those objectives, and in broad terms, the capital planning process and the allocate responsibilities for that process. The plan shall, at a minimum outline:

a) the bank's capital needs;

b) the bank's anticipated capital utilisation;

c) the bank's desired level of capital;

d) limits related to capital;

e) a general contingency plan for dealing with divergences and unexpected events.

9.8 ICAAP to be a risk-based process

The adequacy of a bank's capital is a function of its risk profile. Banks shall, therefore, set their capital targets which are consistent with their risk profile and operating environment. As a minimum, a bank shall have in place a sound ICAAP, which shall include all **material** risk exposures incurred by the bank. There are some types of risks (such as reputation risk and strategic risk) which are less readily quantifiable; for such risks, the focus of the ICAAP should be more on qualitative assessment, risk management and mitigation than on quantification of such risks. Banks' ICAAP document shall clearly indicate for which risks a quantitative measure is considered warranted, and for which risks a qualitative measure is considered to be the correct approach.

9.9 ICAAP to include stress tests and scenario analyses

As part of the ICAAP, the management of a bank shall, as a minimum, conduct relevant stress tests periodically, particularly in respect of the bank's material risk exposures, in order to evaluate the potential vulnerability of the bank to some unlikely but plausible events or movements in the market conditions that could have an adverse impact on the bank. The use of stress testing framework can provide a bank's management a better understanding of the bank's likely exposure in extreme circumstances. The banks are urged to take necessary measures for implementing an appropriate formal stress testing framework.

9.10 Use of capital models for ICAAP

While the Bank does not expect the banks to use complex and sophisticated econometric models for internal assessment of their capital requirements, there is also no mandatory requirement from the Bank for adopting such models. However, some of the banks which have relatively complex operations and are adequately equipped in this regard may like to place reliance on such models as part of their ICAAP. While there is no single prescribed approach as to how a bank should develop its capital model, a bank adopting a model-based approach to its ICAAP shall be able to, inter alia, demonstrate:

a) Well documented model specifications, including the methodology/ mechanics and the assumptions underpinning the working of the model;

b) The extent of reliance on the historical data in the model and the system of back testing to be carried out to assess the validity of the outputs of the model vis-à-vis the actual outcomes;

c) A robust system for independent validation of the model inputs and outputs;

d) A system of stress testing the model to establish that the model remains valid even under extreme conditions / assumptions;

e) The level of confidence assigned to the model outputs and its linkage to the bank's business strategy;

f) The adequacy of the requisite skills and resources within the banks to operate, maintain and develop the model.

9.11 Documenting of ICAAP

The ICAAP (including the methodologies, assumptions, procedures, etc.) and all related policies and management guidelines as well as the responsibilities of the Board, senior management and all related staff must be formally documented, and periodically reviewed and approved by the Board, at least annually. In addition, the ICAAP and related policies, management guidelines and procedures must be communicated and implemented institution-wide and supported by sufficient authority and resources.

10. Operational aspect of the ICAAP

This section outlines in somewhat greater detail the scope of the risk universe expected to be normally captured by the banks in their ICAAP.

10.1 Identifying and measuring material risks in ICAAP

10.1.1 The first objective of an ICAAP is to identify all material risks. Risks that can be reliably measured and quantified should be treated as rigorously as data and methods allow. The appropriate means and methods to measure and quantify those material risks are likely to vary across banks.

10.1.2 Some of the risks to which banks are exposed to include credit risk, market risk, operational risk, interest rate risk in the banking book, credit concentration risk and liquidity risk (as briefly outlined below). The Bank issues from time to time prudential guidelines and/or determinations to the banks on prudential management of banking risks i.e., credit risk, operational risk, etc. A bank's risk management processes, including its **ICAAP, should, therefore, be consistent with this existing body of guidance**. However, certain other risks, such as reputational risk and business or strategic risk, may be equally important for a bank and, in such cases, should be given same consideration as the more formally defined risk types.

For example, a bank may be engaged in businesses for which periodic fluctuations in activity levels, combined with relatively high fixed costs, have the potential to create unanticipated losses that must be supported by adequate capital. Additionally, a bank might be involved in strategic activities (such as expanding business lines or engaging in acquisitions) that introduce significant elements of risk and for which additional capital would be appropriate.

Additionally, if banks employ risk mitigation techniques, they should understand the risk to be mitigated and the potential effects of that mitigation, reckoning its enforceability and effectiveness, on the risk profile of the bank.

10.1.3 **Credit risk**: A bank should have the ability to assess credit risk at the portfolio level as well as at the exposure or counterparty level. Banks should be particularly attentive to identifying credit risk concentrations and ensuring that their effects are adequately assessed. This should include consideration of various types of dependence among exposures, incorporating the credit risk effects of extreme outcomes, stress events, and shocks to the assumptions made about the portfolio and exposure behaviour. Banks should also carefully assess concentrations in counterparty credit exposures, including counterparty credit risk exposures emanating from trading in less liquid markets, and determine the effect that these might have on the bank's capital adequacy.

10.1.4 **Market risk**: A bank should be able to identify risks in trading activities resulting from a movement in market prices. This determination should consider factors such as illiquidity of instruments, concentrated positions, one-way markets, non-linear/ deep out-of-the money positions, 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.

10.1.5 **Operational risk**: 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 the 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.

10.1.6 **Interest rate risk in the banking book** (IRRBB): A bank should identify the risks associated with the changing interest rates on its on-balance sheet 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. The bank should be able to support its assumptions about the behavioural 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 risks. While there

could be several approaches to measurement 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.

10.1.7 **Credit concentration risk**: A risk concentration is any single exposure or a group of exposures with the potential to produce losses large enough (relative to a bank's capital, total assets, or overall risk level) to threaten a bank's health or ability to maintain its core operations. Risk concentrations have arguably been the single most important cause of major problems in banks. Concentration risk resulting from concentrated portfolios could be significant for most of the banks.

The following **qualitative criteria** could be adopted by the banks to demonstrate that the credit concentration risk is being adequately addressed:

a) While assessing the exposure to concentration risk, a bank should keep in view that the calculations of Basel II framework are based on the assumption that a bank is well diversified.

b) While the banks' single borrower exposures, the group borrower exposures and capital market exposures are regulated by the exposure norms prescribed by the Bank, there could be concentrations in these portfolios as well. In assessing the degree of credit concentration, therefore, a bank shall consider not only the foregoing exposures but also consider the degree of credit concentration in a particular economic sector or geographical area. The banks with operational concentration in a few geographical regions, by virtue of the pattern of their branch network, shall also consider the impact of adverse economic developments in that region, and their impact on the asset quality.

c) The performance of specialised portfolios may, in some instances, also depend on key individuals / employees of the bank. Such a situation could exacerbate the concentration risk because the skills of those individuals, in part, limit the risk arising from a concentrated portfolio. The impact of such key employees /individuals on the concentration risk is likely to be correspondingly greater in smaller banks. In developing its stress tests and scenario analyses, a bank shall, therefore, also consider the impact of losing key personnel on its ability to operate normally, as well as the direct impact on its revenues.

As regards the **quantitative criteria** to be used to ensure that credit concentration risk is being adequately addressed, the credit concentration risk calculations shall be performed at the counterparty level (i.e., large exposures), at the portfolio level (i.e., sectoral and geographical concentrations) and at the asset class level (i.e., liability and asset concentrations).

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

10.1.9 The risk factors discussed above 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 ICAAP. Furthermore, banks should be mindful of the capital adequacy effects of concentrations that may arise within each risk type.

11. Quantitative and qualitative approaches in ICAAP

11.1 All measurements of risk incorporate both quantitative and qualitative elements, but to the extent possible, a quantitative approach should form the foundation of a bank's measurement framework. In some cases, quantitative tools can include the use of large historical databases; when data are more scarce, a bank may choose to rely more heavily on the use of stress testing and scenario analyses. Banks should understand when measuring risks that measurement error always exists, and in many cases the error is itself difficult to quantify. In general, an increase in uncertainty related to modelling and business complexity should result in a larger capital cushion.

11.2 Quantitative approaches that focus on most likely outcomes for budgeting, forecasting, or performance measurement purposes may not be fully applicable for capital adequacy because the ICAAP should also take less likely events into account. Stress testing and scenario analysis can be effective in gauging the consequences of outcomes that are unlikely but would have a considerable impact on safety and soundness.

11.3 To the extent that risks cannot be reliably measured with quantitative tools – for example, where measurements of risk are based on scarce data or unproven quantitative methods – qualitative tools, including experience and judgment, may be more heavily utilised. Banks should be cognisant that qualitative approaches have their own inherent biases and assumptions that affect risk assessment; accordingly, banks should recognise the biases and assumptions embedded in, and the limitations of, the qualitative approaches used.

12. Risk aggregation and diversification effects

12.1 An effective ICAAP should assess the risks across the entire bank. A bank choosing to conduct risk aggregation among various risk types or business lines should understand the challenges in such aggregation. In addition, when aggregating risks, banks should ensure that any potential concentrations across more than one risk dimension are addressed, recognising that losses could arise in several risk dimensions at the same time, stemming from the same event or a common set of factors. For example, a localised natural disaster could generate losses from credit, market, and operational risks at the same time.

12.2 In considering the possible effects of diversification, management should be systematic and rigorous in documenting decisions, and in identifying assumptions used in each level of risk aggregation. Assumptions about diversification should be supported by analysis and evidence. The bank should have systems capable of aggregating risks based on the bank's selected framework. For example, a bank calculating correlations within or among risk types should consider data quality and consistency, and the volatility of correlations over time and under stressed market conditions.

13. Submission of the outcome of the ICAAP to Board

As the ICAAP is an ongoing process, a written record on the outcome of the ICAAP should be periodically submitted by the banks to their board of directors. Such written record of the internal assessment of its capital adequacy should include, *inter alia*, the risks identified, the manner in which those risks are monitored and managed, the impact of the bank's changing risk profile on the bank's capital position, details of stress tests/scenario analysis conducted and the resultant capital requirements. The reports shall be sufficiently detailed to allow the Board of Directors to evaluate the level and trend of material risk exposures, whether the bank maintains adequate capital against the risk exposures and in case of additional capital being needed, the plan for augmenting capital. The board of directors would be expected make timely adjustments to the strategic plan, as necessary.

14. Reporting requirement to the Bank

Based on the outcome of the ICAAP as submitted to and approved by the board, the ICAAP report, in the format as specified in the template, shall be furnished to the Bank once a year, 90 days after the financial year end, and should reach the Bank not later than the 90th day.

PART IV: CORRECTIVE MEASURES

15. Remedial measures – If a bank fails to comply with this determination, then 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.

PART V: EFFECTIVE DATE

16. Effective date – The effective date of this determination shall be 1 January 2010.

Questions relating to this Determination should be addressed to the Director, Banking Supervision Department, Bank of Namibia, Tel: 283 5040.

BANK OF NAMIBIA

No. 295 2009

DETERMINATIONS UNDER THE BANKING INSTITUTIONS ACT, 1998
(ACT NO. 2 OF 1998): INTEREST RATE RISK IN THE BANKING BOOK (BID 21)

In my capacity as Governor of the Bank of Namibia (Bank), and under the powers vested in the Bank by virtue of section 71(3) of the Banking Institutions Act, 1998 (Act No. 2 of 1998), read

in conjunction with Section 31 of the aforementioned Act, I hereby issue this **Determination on Interest Rate Risk in the Banking Book (BID 21),** which Determinations shall become effective on 1 January 2010.

T.K. ALWEENDO
GOVERNOR WINDHOEK, October 2009

Determination No. BID 21

INTEREST RATE RISK IN THE BANKING BOOK

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PART I: PRELIMINARY

1. Short Title – Interest Rate Risk

2. Authorization - Authority for the Bank to issue this Determination is provided in section 71(3) of the Banking Institutions Act, 1998 (Act).

3. **Application –** This Determination applies to all banking institutions authorized by the Bank to conduct banking business in Namibia and the banking groups to which they belong.

4. **Definitions -** Terms used within this Determination are as defined in the Act, as further defined below, or as reasonably implied by contextual usage:

4.1 **"bank"** - means banking institutions as defined in Section 1 of the Act.

4.2 **"interest rate risk"** - means the potential that changes in interest rates may adversely affect the value of a financial instrument or portfolio, or the financial condition of a bank.

4.3 **"repricing (or maturity mismatch) risk"** is caused by timing differences in rate changes and cash flows that occur in the repricing and maturity of fixed and floating rate assets, liabilities and off-balance sheet instruments. Thus it is the risk that 'gaps' between maturity or reprising will affect earnings and value.

4.4 **"yield curve risk"** materialises when unanticipated changes in the yield curve have adverse effects on a banking institution's income or economic value

4.5 **"basis risk"** arises from imperfect correlation between changes in the rates earned and paid on different instruments with otherwise similar repricing characteristics.

4.6 **"option risk"** is the risk that embedded or explicit options present to a banking institution. Options may be stand-alone instruments such as exchange-traded bond options and over-the-counter contracts such as caps and floors or they may be embedded within otherwise standard instruments.

4.7 **"earning at risk"** (EAR) - refers to the effect of changes in the interest rates on the profitability of a banking institution over a specified time.

4.8 **"economic value of equity"**(EVE) is the difference between the present value of assets and the present value of liabilities, plus or minus the present value of off-balance sheet instruments, discounted to reflect market rates.

PART II: STATEMENT OF POLICY

5. **Purpose -** This Determination is intended to ensure that banks have sound interest rate risk management framework i.e. (a) banks have effective systems in place to identify, measure, monitor and control interest rate risk in the banking book; (b) banks have well defined strategies that has been approved by the board and implemented by the senior management; and (c) banks set mandatory capital requirement for interest rate in the banking book.

6. **Scope -** This Determination applies to all banks authorised and operating in Namibia on a solo and consolidated basis.

7. **Responsibility -** The board of directors of each bank shall be responsible for establishing policies and procedures which are adequate to ensure that, as a minimum requirement, each bank has written policies and procedures for measuring and managing interest rate risk in the banking book.

PART III: IMPLEMENTATION AND SPECIFIC REQUIREMENTS

8. Regulatory Requirements

8.1 Exposure to earnings and capital

Interest rate risk can arise from a variety of sources, but the four primary sources are repricing (or maturity mismatch) risk, yield curve risk, basis risk and option risk. Changes in interest rates can have adverse effects both on a bank's earnings and economic value. Therefore, for supervisory purposes, the banks interest rate risk exposures should be assessed from two separate but complementary perspectives, i.e. earnings and economic value. The banks are required to have limits in place, for EAR and EVE, which truly reflects the bank's risk tolerance.

8.2 Interest rate risk exposure in foreign currencies

A bank shall not unduly expose its banking book assets or liabilities to interest rate risk in any foreign currency.

9. Interest Risk Rate Management Process

9.1 Board of Directors and Senior Management oversight

Effective oversight by a bank's board of directors and senior management is critical for sound interest rate risk management practices. It is essential that the management is aware of their responsibilities with regard to interest rate risk management, and how these risks affect current operations and strategic plans. The board's responsibilities are as follows:

i. Establish strategy and acceptable risk tolerance levels, including policies, risk limits and management authority and responsibility;

ii. Monitor interest rate risk to prevent excessive risk exposure; and

iii. Provide adequate interest rate risk management.

On the other hand, senior management responsibilities include both long-term and daily interest rate risk management. Senior management should:

i. Implement procedures that translate the board's policies into clear operating standards

ii. Maintain a measurement system that identifies, measures, and monitors interest rate risk; and

iii. Establish effective internal interest rate risk controls.

9.2 Policies and Procedures

Bank's interest rate risk management policies and procedures shall be clearly defined and consistent with the nature and complexity of its activities. The policies and procedures shall be properly documented, drawn up after careful consideration of interest rate risk associated with different types of lending, and reviewed and approved by management at the appropriate level.

The board of directors may delegate responsibility for establishing interest rate risk policies and strategies to the Asset and Liability Committee ("ALCO"), which is a designated committee, usually composed of persons fully knowledgeable of the bank's funding strategy.

9.3 Limits

Banks shall establish and enforce operating limits and other practices that maintain exposures within levels consistent with their internal policies and that accord with their approach to measuring interest rate risk.

In particular, banks shall set a limit on the extent to which floating rate exposures are funded by fixed rate sources and vice versa to limit interest rate risk. In floating rate lending, banks shall limit the extent to which they run any basis risk that may arise if lending and funding are not based on precisely the same market interest rate.

The limits shall be consistent with banks' underlying approach to interest rate risk measurement and shall be directed at how reported earnings and capital adequacy might be affected by changes in market interest rates.

With respect to the earnings, banks shall consider limits on earnings volatility in both net income and net interest income under specified interest rate scenarios so as to quantify what portion of their interest rate risk exposure arises from non-interest income.

9.4 New services and strategies

The banks shall identify the interest rate risks inherent in new services and activities and ensure that these are subject to adequate procedures and controls before being introduced or undertaken.

9.5 Risk measurement

Banks shall have interest rate risk measurement systems that encompass all significant causes of such risk. The systems should evaluate the effect of rate changes on earnings or economic value meaningfully and accurately within the context and complexity of their activities. They should be able to flag any excessive exposures.

As a minimum, the measurement systems should:

(i) evaluate all significant interest rate risk arising from the full range of a bank's assets, liabilities and off-balance sheet positions. If the same measurement systems and management methods are not used for all activities, an integrated view of interest rate risk across products and business lines should be available to management;

(ii) employ generally accepted financial models and ways of measuring risk. In particular, internal systems must be capable of measuring risk using both an earnings and economic value approach.

(iii) have accurate and timely data (in relation to rates, maturities, repricing, embedded options and other details) on current positions;

(iv) document the assumptions, parameters and limitations on which they are based. Material changes to assumptions should be documented, justified and approved by senior management;

(v) cover all significant sources of interest rate risk (e.g. repricing, yield curve, basis and option). While all of a bank's positions should be appropriately treated, its largest concentrations and positions shall be assessed with special thoroughness, as shall instruments which might have a material effect on an bank's overall position (notwithstanding that they are not major concentrations) and instruments with significant embedded or explicit options; and

vi. the interest rate risk measurement system must be integrated into the bank's daily risk management practises.

9.6 Monitoring

As part of the risk monitoring process, banks should have a system in place to monitor compliance with interest rate risk limits. Exceptions should be reported, approved and rectified as laid down in the policies.

Banks should perform periodic reviews and monitoring of interest rate risk exposures to identify unusual developments and, if appropriate, initiate necessary actions to protect their earnings and capital.

As a minimum, the monitoring of interest rate risk in the banking book for supervisory purposes shall be based on risk as measured by the economic value approach.

9.7 Interest rate risk reporting

Each bank should have an accurate, informative and reliable system for capturing interest rate risk exposures in a timely manner. The reporting system should cover all aspects of interest rate risk exposures including exposures to foreign currencies.

The board of directors should receive quarterly reports on the level of interest rate risk exposures. More frequent reporting is appropriate when deterioration in interest rate risk exposures would threaten the bank's financial soundness.

9.8 Stress-testing and back-testing

Banks should periodically conduct stress-testing analysis of their interest rate risk exposures and report the results to the board of directors. As used here, stress testing does not refer to the use of sophisticated financial modeling tools, but rather to the need for banks to evaluate in some way the potential impact of different scenarios on the interest rate risk exposures in the banking book.

The stress-testing systems should take into account variety of scenarios. As a minimum, the scenarios should feature an upward/downward parallel rate shock of 50,100 and 200 basis points, with pivot points of 12 months to 18 months. Systematic testing for most adverse events possible should also be considered.

The stress-testing exercises should also take into account developments of early loan repayment assumptions, systematic exercise of options, differentiated scenarios for the propagation of interest rate changes, differentiated pivot points or unstable runoff of deposits.

Back-testing exercises are a key element of after-the-fact verification of the robustness of the underlying assumptions used for example, about runoff in deposits, prepayment of loans and correlations, as well as the accuracy of measurements and the effectiveness of hedging. Therefore, banks should on a periodic basis perform back-testing exercises.

9.9 Internal controls and independent audits

Banks shall have adequate internal controls over interest rate risk, and the effectiveness of such controls should be evaluated regularly by independent parties, e.g. internal or external auditors.

Banks shall conduct periodic reviews of their risk management process for interest rate risk to ensure its integrity, accuracy and reasonableness. Banks with more complex profiles and measurement systems should have their internal models or calculations audited or validated by an independent internal or external reviewer.

10. Reporting Requirements

The bank shall at the end of each calendar quarter submit to the Bank all returns in terms of this determination by not later than the 26th day of the following month.

PART IV: CORRECTIVE MEASURES

11. Remedial measures

If a bank fails to comply with this determination, then 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. Depending on the circumstances of the case, the measures may include requiring a bank to strengthen its capital position or reduce its interest rate risk (through, for example, hedging or restructuring of existing positions), if necessary.

PART V: EFFECTIVE DATE

12. Effective date - The effective date of this determination shall be 1 January 2010.

Questions relating to this Determination should be addressed to the Director, Banking Supervision Department, Bank of Namibia, Tel: 283-5040.