

CENTRAL BANK OF NIGERIA



Guidance Notes on the Calculation of Capital Requirement for Credit Risk

STANDARDIZED APPROACH



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CHAPTER ONE: CREDIT RISK – STANDARDIZED APPROACH

1.0 INTRODUCTION

- The application of the standardized approach for calculating the capital requirement for credit risk is supported by external credit assessments and it entails:
 - a) the classification of exposures to different classes based on the nature of the counterparty or the technical characteristics of the transaction or the manner in which it is carried out, and
 - b) the assignment of diversified risk weights to each portfolio, based on the ratings provided by the External Credit Assessment Institutions (ECAI) or the risk weights specified for certain exposure categories under this framework.
- **All unrated exposures shall be assigned a risk weight of 100% where any of the under listed two conditions holds**
 - a) The bank does not intend to use a rating assigned by an ECAI; and
 - b) Where ECAI selected by the bank has not issued a rating for the exposure.

2.0 EXTERNAL CREDIT ASSESSMENTS

External credit assessments (or external ratings) on the borrowers or specific exposures are the basis for the determination of risk weights under the standardized approach for exposures to sovereigns, central banks, public sector entities, banks, corporates as well as certain specific exposures¹. The risk weights for other categories of exposures that are not subject to external ratings are specified in this framework.

2.1 *Rules on the use of external ratings*

The rules for the use of external ratings are as follows;

- a) Banks that intend to use credit assessments from ECAIs shall furnish the CBN with a list of such ECAIs.
- b) Banks are not allowed to use credit assessments issued by connected ECAIs.

¹For this purposes, banks are only permitted to use external ratings provided by rating agencies that have been recognized by the CBN based on the eligibility criteria as provided in Annex A.



- c) Credit assessments shall be used consistently; therefore, banks that decide to use credit quality assessments from an ECAI for a certain class of exposures shall use them for all the exposures belonging to that class.
- d) Banks shall use only credit quality assessments of ECAs that take account of total exposure i.e. principal and interest.
- e) External ratings for an entity within a group cannot be used to risk weight other entities within the same group.

2.2 Single and Multiple assessments

- Where there is only one assessment by an ECAI chosen by a bank for a particular exposure, that assessment should be used to determine the risk weight of the exposure.
- Where separate assessments by two different ECAs result in different risk weights, the higher risk weight will be applied.
- Where there are three or more assessments with different risk weights, the assessments with the two lowest risk weights should be selected and the higher of those two risk weights will be applied.

2.3 Unsolicited ratings

As a general rule, banks should only use solicited ratings from recognized ECAs for the purposes of calculating capital requirement under the standardized approach. Where it is expedient for any bank to use unsolicited ratings, such bank shall obtain the CBN approval and the quality of the unsolicited ratings must not fall below that of solicited ratings.

2.4 Revocation of ECAI's recognition

Where the recognition of an ECAI is revoked, banks that use the ratings provided by such ECAI shall adjust their exposure risk weights within 30 days.

2.5 Issuer and Issues Assessment

Where a bank invests in a particular security, which has an issue-specific rating, the risk weight for this exposure will be based on this rating. Where the bank has an



investment which does not have an issue-specific rating, the following principles shall apply:

- a) Where the bank's exposure is to a borrower which does not have its own issuer rating, but the same borrower has a rating on other obligations (such as a debt security) to which the bank is not exposed, the bank shall use that debt security rating in determining the appropriate risk weight for the exposure to the borrower. However, this is subject to the condition that the bank's exposure ranks *pari passu* or senior in all respects to the debt security which has a rating, otherwise, the claim will receive the risk weight for unrated exposures;
- b) Where a borrower has its own issuer rating, this rating typically applies to senior unsecured exposures on that borrower. Thus, only senior exposures on that borrower will be able to utilise this rating. Other exposures will be treated as unrated; and
- c) Where either the issuer or a single security has a low quality rating which maps into a risk weight equal to or higher than that which applies to unrated exposures, an unrated exposure on the same borrower or issuer will be assigned the same risk weight as is applicable to the low quality rating (instead of the risk weight for unrated exposures).

2.6 Domestic and foreign currency exposures

- A credit assessment that refers to an item denominated in the borrower's domestic currency cannot be used to derive a risk weight for another exposure to that same borrower that is denominated in a foreign currency.
- Where unrated exposures are risk weighted based on the rating of an equivalent exposure to that borrower, the general rule is that foreign currency ratings would be used for exposures in foreign currency. Domestic currency ratings, if separate, would only be used to risk weight claims denominated in the domestic currency².

² Notwithstanding the above, where an exposure arises through a bank's participation in a loan extended, or has been guaranteed against convertibility and transfer risk, by a multilateral development bank whose preferred creditor status, is recognized in the market, the credit assessment on the borrower's domestic currency item may be used for risk weight purposes, to the extent guaranteed by the MDB.



2.7 Short-term and long-term credit assessments

- Where a short-term exposure is assigned a 150% risk weight, all unrated exposures to the counterparty whether short-term or long-term shall receive a 150% risk weight;
- Where a short-term exposure is assigned a 50% risk weight, no unrated short-term exposure shall receive a risk weight of less than 100%.
- When a specific short-term assessment for a short-term exposure on a bank maps into a less favourable (higher) risk weight than the general preferential treatment for short-term exposures, the general short-term preferential treatment for interbank exposures cannot be used. All unrated short-term exposures should receive the same risk weighting as that implied by the specific short-term assessment.

3.0 EXPOSURES AND RISK WEIGHTS CATEGORIES

The following part defines the various categories of exposures and their corresponding risk weights under the standardized approach. On-balance sheet exposures shall be multiplied by the appropriate risk weight to determine the risk-weighted asset amount, while off-balance sheet exposures shall be multiplied by the appropriate credit conversion factor (CCF) before applying the respective risk weights. Specifically, all exposures subject to the standardized approach should be **risk-weighted net of specific provisions³**.

3.1 Exposures to Central Governments and Central Banks

- Exposures to Central Governments and Central Banks shall be assigned risk weights based on the rating assigned by an ECAI/Export Credit Agency (ECA) as follows;

³ Specific provisions include individual impairment provisions, as well as collective impairment provisions (and regulatory reserves, if any) that are attributable to loans classified as impaired.



Credit Assessment (ECAI)	AAA to AA-	A+ to A -	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk Scores (ECA)	1	2	3	4-5	6	Unrated
Risk Weight	0%	20%	50%	100%	150%	100%

- Notwithstanding the provisions of this paragraph, a risk weight of 0% shall be assigned to the following:
 - Exposures to Federal Government of Nigeria (FGN) and Central Bank of Nigeria (CBN) denominated in Naira (NGN) and funded in that currency.
 - Exposures, including inter-bank transactions guaranteed by the FGN or CBN.
 - Inter-bank transactions among supervised institutions collateralized by FGN Bonds or Treasury Bills.

3.2 Exposures to non-Central Government Public Sector Entities

- Exposures to Public Sector Entities (*PSEs*⁴) shall be assigned a risk weight of 100% regardless of the length of the residual maturities of the exposures.
- Where a PSE is located in other jurisdiction, the risk weight of the sovereign rating of that jurisdiction shall be applied.

3.3 Exposures to State Governments and Local Authorities

- Exposures to State and Local Governments in Nigeria shall receive the following risk weights:
 - 20% risk weight for State Government bonds that meet the eligibility criteria for classification as liquid assets by the CBN
 - 100% risk weight for other State and Local Government bonds and exposures
- State and Local Governments of other jurisdictions shall be assigned the sovereign risk weight of those jurisdictions.

⁴ Public sector entities include both commercial and non-commercial entities owned by federal government, state government or a local government. The CBN may adjust the risk weights applicable to these entities when deemed necessary.



3.4 Exposures to Multilateral Development Banks (MDBs)

- Exposures to multilateral development banks shall be risk weighted on the basis of the rating assigned by an ECAI, as set out in the table below;

Credit Assessment for MDBs	AAA to AA-	A+ to A -	BBB+ to BBB-	BB+ to B-	Below B-	unrated
Credit quality steps	1	2	3	4 and 5	6	Unrated
Risk Weight	20%	50%	50%	100%	150%	50%

- However, a risk weight of **0%** shall apply to exposures to the following MDBs, regardless of any external credit rating assigned:
 - a) International Bank for Reconstruction and Development (IBRD);
 - b) International Finance Corporation (IFC);
 - c) African Development Bank (ADB);
 - d) Asian Development Bank (ADB)
 - e) European Bank for Reconstruction and Development (EBRD)
 - f) Inter-American Development Bank (IADB)
 - g) European Investment Bank (EIB)
 - h) European Investment Fund (EIF)
 - i) Nordic Investment Bank (NIB)
 - j) Caribbean Development Bank (CDB)
 - k) Islamic Development Bank (IDB)
 - l) Council of Europe Development Bank (CEDB)
 - m) International Islamic Liquidity Management Corporation (IILMC)
 - n) Any other MDBs that may be specified from time to time by the CBN.

3.5 Exposures to Supervised Institutions

- Exposures to banks incorporated in a given country will be assigned a risk weight one category less favourable than that assigned to exposures on the sovereign of that country as shown in the following table.



Credit Assessment	AAA to AA-	A+ to A -	BBB+ to BBB-	BB+ to B-	Below B-	unrated
Credit quality steps	1	2	3	4 and 5	6	unrated
Risk Weight	20%	50%	100%	100%	150%	100%

- Short-term exposures to supervised institutions in Nigeria with an original maturity of three months or less shall be assigned a risk weight of 20% while a risk weight of 100% shall be assigned to long-term exposures.
- Shareholdings, hybrid and subordinated capital instruments issued by supervised institutions shall be assigned a risk weight of 100% where they are not deducted from regulatory capital.⁵

3.6 Exposures to Corporates and Other Persons

- This class includes exposures to entities other than those referred to in the above subsections as well as exposures to natural persons and small and medium-sized enterprises that cannot be classified under retail exposures as provided below.
- Exposures to corporates other than small and medium-sized enterprises shall be risk weighted on the basis of a credit assessment assigned by an ECAI as follows;

Credit Assessment	AAA to AA-	A+ to A -	BBB+ to BBB-	Below B-	unrated
Credit quality step	1	2	3 and 4	5 and 6	unrated
Risk Weight	20%	50%	100%	150%	100%

- Exposures to insurance companies, securities firms, and collective investment schemes shall be treated as exposures to corporates.

3.7 Regulatory Retail Portfolio

Exposures included in the regulatory retail portfolio shall be risk-weighted at **75%**. To qualify to be included in the regulatory retail portfolio, such exposures must meet the following criteria:

⁵Excluding shareholdings, innovative capital instruments, hybrid capital instruments and subordinated instruments subject to capital requirements for market risk.



- i) **Orientation criterion** – the exposure is to an individual person or persons or to a small business. (small businesses may include sole proprietorships, partnerships or small and medium-scale enterprises (SMEs⁶))
- ii) **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 other term loans (for example installment loans, auto financing loans, student and educational loans, personal finance) and small business facilities. Investment in debt and equity securities, whether listed or not, are excluded from this portfolio. Mortgage loans are excluded to the extent that they qualify for treatment as exposures secured by residential property.
- iii) **Granularity criterion⁷** - the aggregate exposure⁸ to one counterpart cannot exceed 0.2% of the overall regulatory retail portfolio;
- iv) **Low value of individual exposures** - the aggregate retail exposure to one counterpart cannot exceed an absolute threshold of N100 million.

3.8 Exposures secured by Mortgages on Residential Property

- A risk weight of **100%** shall be applied to exposures secured by mortgages on residential property provided that:
 - a) The residential property will be occupied or rented out. The borrower's capacity to repay does not materially depend on cash flows generated by the property serving as collateral, but rather on the capacity of the borrower to repay the debt from other sources⁹;
 - b) The amount of the exposure does not exceed 80% of the value of the property¹⁰. The loan to value ratio may be raised to 100% if supplemental guarantees are provided.

⁶Small and Medium Scale Enterprise (SME) is an enterprise that has asset base (excluding land) of between N5million –N500 million and labour force of between 11 and 300.

⁷Banks shall aggregate all their retail exposures, which have fulfilled all other operational requirements for regulatory retail portfolio and ascertain whether all these exposures do not exceed the granularity threshold. If there are exposures, which exceed this threshold; they would not be eligible for the 75% risk weight and shall be treated as a corporate exposure.

⁸Aggregate exposure means gross amount (excluding defaulted exposures and without taking into account credit risk mitigation effects) of all forms of debt exposures (including off-balance sheet exposures) that individually satisfy the other three criteria.

⁹The requirement is not fulfilled in the case of real estate companies, construction companies and real estate funds, for these subjects, indeed, the sale and / or lease the property to a third party are the main activities.

¹⁰The value of the property is equal to the market value (or mortgage lending value) reduced if necessary to reflect the results of monitoring as well as any earlier mortgages on the property.



- In order to enable lending banks to obtain an effective benefit from the reduction in credit risk, the supplemental guarantees shall meet the general requirements specified under the rules governing credit risk mitigation.

3.9 *Exposures secured by Mortgages on Commercial Real Estate*

Exposures secured by mortgages on commercial real estate (property for use as office space, distribution or other economic activities) located in Nigeria are risk-weighted at **100%**.

Other conditions for exposures secured by real estate property

Exposures secured by real estate property shall include exposures secured by a mortgage on real estate or connected with real estate leasing contracts, in accordance with the procedures set out in this section, provided that the following conditions, in addition to those under subsection 3.8 and 3.9 above:

- a) The value of the property does not materially depend upon the credit quality of the debtor;¹¹
- b) The property is appraised by an independent valuer¹² at a value that does not exceed the market value;¹³
- c) The claim on the collateral is legally enforceable in all relevant jurisdictions and may be realized in a reasonable period of time.
- d) The property value shall be adequately monitored. Thus;
 - i. the value of the property shall be verified at least once every three years for residential property and once every year for commercial real estate, or more frequently where the market is subject to significant changes in conditions;
 - ii. where the verifications under point i) reveal a material decline in the value of the property, a valuation shall be made by an independent valuer, based on a value that shall not exceed the market value;¹⁴ the property valuation shall be

¹¹ This requirement does not preclude situations where purely macro-economic factors affect both the value of the property and the performance of the borrower.

¹² Independent valuer shall mean a person who possesses the necessary qualifications, ability and experience to perform a valuation and who is independent of the loan granting or monitoring process.

¹³ Market value shall mean the estimated amount for which the property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion. The market value shall be documented in a transparent and clear manner.

¹⁴ Market value shall mean the estimated amount for which the property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion. The market value shall be documented in a transparent and clear manner.



reviewed by an independent valuer at least once every three years for exposures exceeding 5% of the bank's regulatory capital¹⁵;

- e) The types of property accepted as collateral and the related lending policies shall be clearly documented;
- f) The property serving as collateral shall be adequately insured against damage.

3.10 Past Due Exposures¹⁶

The treatment of exposures classified as past due (defaulted) is provided below.

- The risk weights for the unsecured portion of past due exposures (other than qualifying residential mortgage loans and higher risk assets, net of specific provisions¹⁷ (including partial write-offs) are as follows:
 - i) 150% risk weight when specific provisions are less than 20% of the outstanding amount of the exposure;
 - ii) 100% risk weight when specific provisions are no less than 20% of the outstanding amount of the exposure.

For the purpose of defining the secured portion of past due exposures, eligible collateral and guarantees will be the same as for credit risk purposes.

- Qualifying residential mortgage loans that are past due shall be risk weighted, net of specific provisions (including partial write-offs) as follows:
 - i) 100% when specific provisions are less than 20% of the outstanding amount of the exposure; and
 - ii) 50% when specific provisions are 20% or more of the outstanding amount of the exposure.

3.11 Higher-Risk Exposures

The following exposures are regarded as higher risk exposures and are assigned specific risk weights¹⁸ as follows:

¹⁵ The initial independent valuation shall be carried out as of the date on which these regulations enter into force for all operations existing for more than 3 years.

¹⁶ Definition of past due or defaulted exposures is provided under the definition of terms.

¹⁷ Specific provisions include individual impairment provisions, as well as collective impairment provisions (and regulatory reserves, if any) that are attributable to loans classified as impaired.

¹⁸ The CBN may direct banks to apply a higher risk weight in the event of adverse market conditions.



- a) Unrated securitization shall be risk weighted 1000%
- b) Unrated securitization for internationally active banks (to which capital adequacy ratio of 15% applies) shall be risk weighted 667%
- c) Securitization tranches that are rated between BB+ and BB- will be risk weighted at 350%
- d) Investment in non-financial firms with negative financial results over the past two years; will be weighted at 200%.
- e) Investments in venture capital firms will be risk weighted 150%
- f) Non-publicly traded equity investments will be risk-weighted at 150%
- g) Residential mortgage loans for abandoned housing development project or construction will be risk-weighted at 150%; and
- h) Exposures to sovereigns, PSEs, banks, and securities firms rated below B- as well as exposures to corporates rated below BB-will be risk weighted at 150%
- i) Where exposure to a particular industry within a sector (as defined by the International Standard Industrial Classification of Economic Sectors as issued by the CBN) is in excess of 20% of total credit facilities of a bank, the risk weight of the entire portfolio in that industry shall be 150%. If for instance the total exposure of a bank to the food manufacturing industry within the Manufacturing sector is in excess of 20% of total credit facilities, the entire portfolio of exposure to the food manufacturing industry would be risk weighted 150%.
- j) The treatment of both defaulted and non-defaulted exposures of these higher risk items shall be the same.

3.12 Other Assets

- **0% Risk weight**
 - i) Cash in hand and equivalent cash items shall be assigned a 0% risk weight.
 - ii) Gold bullion held in own vaults or on an allocated basis to the extent backed by bullion liabilities shall be assigned a 0% risk weight.
 - iii) All exposures deducted from capital
- **20% Risk weight**
 - i) Cheques and Cash items in transit shall be assigned a 20% risk weight.



- **100% Risk weight**
 - i) Property, plant and equipment and other fixed assets
 - ii) Prepayments
 - iii) Investments in equity or regulatory capital instruments issued by banks, other financial institutions and other entities unless deducted from capital base.
 - iv) Investments in collective investment schemes.
 - v) Real estate and other investments (including non-consolidated investment participation in other companies)
 - vi) Bank lending to subsidiaries in the same group: - where the loan is fully secured, it would be assigned a risk weight of 100%, otherwise it would be deducted from the capital when computing capital adequacy.
 - vii) Any other assets not specified above.

3.13 Off-Balance-Sheet Exposures:

Guarantees and commitments

- In order to calculate the credit risk associated with guarantees and commitments issued, banks shall first convert the exposures to credit equivalent amount by multiplying the exposures by the related credit conversion factors (CCF). Then, capital requirement is derived by multiplying the credit equivalent amount by the specific risk weight of the counterparty. Specifically, the credit conversion factors as provided in Annex B shall be applied to the exposures.
- In the case of **asset sale and repurchase agreements** and **outright forward purchases**, the risk weights shall be that of the assets in question and not that of the counterparties to the transactions.

3.1.4 Securitization Positions

The risk-weights for securitized exposures are set out in chapter two of this framework.



CHAPTER TWO: SECURITIZATION POSITIONS

1.0 INTRODUCTION

- This section describes the various approaches in determining regulatory capital requirements on exposures arising from securitization (traditional and synthetic) held in the banking book and the operational requirements for allowing regulatory capital reduction for banks.
- All banks, whether acting as originators or as third-party investors, must hold regulatory capital against all securitization exposures (on- or off-balance sheet) in the banking book arising from traditional and synthetic securitizations or structures that contain features similar to both. Such securitization exposures may arise from the following activities of the banks among others:
 - i) investments in any securitization issue, including retention or repurchase of one or more securitization positions;
 - ii) provision of credit risk mitigants or credit enhancement to parties to securitization transactions;
 - iii) provision of liquidity facilities or other similar facilities;
 - iv) obligations due to early amortization features in a securitization; or
 - v) entitlements to future income, generated by a securitization through various forms of arrangements such as deferred purchase price, excess servicing income, gain-on-sale, future margin income, cash collateral accounts or other similar arrangements.
- The framework specifies a number of methods for calculating the risk-weighted value of securitization positions. For banks that adopt the standardized approach in calculating the capital requirement for credit risk, the risk-weighted amount of the securitized assets underlying the securitization position shall be calculated using risk weights assigned by an ECAI to securitization exposures.
- For regulatory capital purposes, banks may use credit risk mitigation techniques to reduce the capital requirement for securitization positions. The methods for using these techniques are described in the section on credit risk mitigation.



2.0 OPERATIONAL REQUIREMENTS FOR THE RECOGNITION OF CREDIT RISK TRANSFER

- This section establishes the minimum requirements for the recognition of the transfer of credit risk and the regulatory capital treatment that the originating bank shall apply to securitize assets. Where the requirements set out in this section are not met, the securitization shall not be recognized for regulatory capital purposes.
- Banks should understand the inherent risks of the activity and be competent in structuring and managing such transactions. The terms and conditions of all transactions between the originating banks and the Special Purpose Vehicle (SPV) should be at market terms and conditions (all fees payable, should be in a timely manner) and meet the institution's normal credit standards.
- An institution's capital and liquidity plans should take into account the potential need to finance an increase in assets on its balance sheet as a result of early amortization or maturity events. The CBN may, if deemed necessary, increase the institution's capital requirement.

2.1 Operational requirements for traditional securitizations

Under a traditional securitization, an originating bank may exclude the securitized exposures from the calculation of the credit risk-weighted assets only if all the following requirements are met on an ongoing basis:

- a) Significant credit risks associated with the securitized exposures has been transferred to third parties.
- b) The securitized exposures are not subject to claims by the originating bank and its creditors, even in the event of bankruptcy proceedings or receivership against the originating bank. Compliance with this condition shall be supported by an opinion provided by a qualified legal counsel with relevant experience in the sector;
- c) The transferee is a special-purpose vehicle (SPV) and the holders of the beneficial interests in that entity have the right to pledge or exchange the interests without restriction;



- d) The securities issued on the securitized exposures are not obligations of the originating bank. Thus, investors who purchase the securities have recourse only to the underlying pool of exposures.
- e) The originating bank does not maintain effective or indirect control over the transferred exposures. The originating bank is deemed to have maintained effective or indirect control over the transferred credit risk exposures if it;
 - has right to repurchase from the transferee (i.e. SPV) the previously transferred exposures in order to realize their benefits; or
 - is obligated to re-assume the risk of the transferred exposures. The originating bank's retention of servicing rights to the exposures will not necessarily constitute indirect control of the exposures.
- f) Clean-up call options shall be permitted, provided they satisfy the conditions set out in sub-section 2.3.
- g) The contracts that govern the securitization do not contain clauses that;
 - require the originating bank to improve the credit quality of securitization positions by altering the securitized assets
 - allow for increases in a retained first loss position or credit enhancement provided by the originating banking institution after the inception of the transaction; or
 - increase the yield payable to parties other than the originating bank, such as investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the securitized assets.

Where the traditional securitization complies with the significant credit risk transfer requirement for regulatory capital purposes, but does not pass the de-recognition test under IAS 39, the value of any securitization positions held by the originating bank shall be determined as if the transferred assets had been derecognized and the securitization positions recognized.

2.2 Operational requirements for Synthetic securitizations

Under a synthetic securitization, an originating bank may recognize the use of Credit Risk Mitigation (CRM) techniques such as collateral, guarantees or credit derivatives



for capital relief purpose, if all the following requirements in addition to the conditions set out under traditional securitization are met on an ongoing basis:

- a) The credit protection by which the credit risk is transferred complies with conditions under credit risk mitigation. For this purpose, special-purpose vehicles shall not be recognized as eligible unfunded credit protection providers¹⁹;
- b) The instruments used to transfer credit risk do not contain terms or conditions that:
 - impose significant materiality thresholds below which credit protection is deemed not to be triggered if a credit event occurs;
 - allow for the termination of protection due to deterioration of the credit quality of the underlying exposures;
 - require positions in the securitization to be improved by the bank;
 - increase the bank's cost of credit protection or the yield payable to holders of positions in the securitization in response to a deterioration in the credit quality of the underlying pool;
- c) Securitization structures that include a clean-up call feature must satisfy the conditions set out in sub-section 2.3.
- d) A written opinion is obtained from qualified legal counsel that confirms the enforceability of the credit protection in all relevant jurisdictions.

2.3 *Operational requirements and 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 in 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 positions held by investors or otherwise structured to provide credit enhancement; and

¹⁹ Accordingly, where credit risk is transferred using a credit default swap entered into by a special purpose vehicle, the protection of the securitized assets would not be ensured by the special-purpose vehicle itself, but by the assets posted as collateral by the vehicle.



- c) the clean-up call must only be exercisable when 10% or less of the original underlying portfolio, or securities issued remain, or, for synthetic securitizations, when 10% or less of the original reference portfolio value remains.
- Securitization transactions that include a clean-up call that does not meet all of the requirements above, shall be subject to the following treatment:
 - a) For a traditional securitization, the underlying exposures must be treated as if the exposures were not securitized. Banks must not recognize in regulatory capital any income in equity capital resulting from a securitization transaction, such as that associated with expected future margin income resulting in a gain-on-sale; and
 - b) For synthetic securitizations, the purchaser of protection must hold capital against the entire amount of the synthetically securitized exposures as if it had not benefited from any credit protection.
- If a clean-up call, when exercised, is found to serve as a credit enhancement, the exercise of the clean-up call must be considered a form of implicit support provided by the bank and must be treated in accordance with the supervisory guidance pertaining to securitization transactions.

2.4 Treatment of Implicit support

Where the originating bank provides implicit support²⁰ to a securitization, it shall;

- a) Calculate capital requirement for all of the exposures associated with the securitization transaction as if the exposures had not been securitized or as if the transaction did not benefit from any credit protection (in the case of synthetic securitization);
- b) Deduct from Tier 1 Capital any income in equity capital resulting from a securitization transaction, such as that associated with expected future margin income resulting in a gain-on-sale; and

²⁰Implicit support may include the purchase of deteriorating credit risk exposures from the underlying pool, the sale of discounted credit risk exposures into the pool of securitized credit risk exposures, the purchase of underlying exposures at above market price or an increase in the first loss position according to the deterioration of the underlying exposures, etc. This implicit support increases market expectations that the bank might continue to provide future support to the securitization, thereby understating the degree of risk transfer and the required level of regulatory capital by the bank.



- c) Disclose the details of the implicit support and the impact of such support on its regulatory capital in accordance with the disclosure requirements under Pillar III.

3.0 STANDARDIZED APPROACH FOR SECURITIZATION EXPOSURES

- Banks are required to hold regulatory capital against all of their securitized exposures using the guidelines contained in this section.
- Banks that apply the standardized approach for calculating credit risk capital requirements for the type of the underlying exposure(s), securitized are also required to use the same approach for calculating the capital requirements for the securitization exposures.

3.1 Risk Weights for Securitization Exposures

- The risk-weighted asset amount of an on-balance sheet securitization exposure is computed by multiplying the amount of the securitization exposure by the appropriate risk weight as provided in the table below:

Risk Weights for Securitizations and Re-securitization Positions

External Credit Assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ and below or unrated
Securitization Exposures	20%	50%	100%	350%	1250%
Re-securitization Exposures	40%	100%	225%	650%	1250%

- For off-balance sheet exposures, unless otherwise specified, the credit exposure equivalent of the off-balance-sheet securitization positions (such as guarantees issued and loan commitments) shall be equal to the nominal value multiplied by a credit conversion factor of 100%.



3.2 Use of Assessments

- Where the credit assessment made by an ECAI takes account of a credit risk mitigation instrument provided for the entire securitization that is recognized for regulatory capital purposes, the assessment may be used to determine the position's risk weight; otherwise, the assessment may not be taken into consideration.
- Where credit risk protection is provided directly to an individual securitization position, a credit assessment made by an ECAI that reflects such protection shall not be considered. In this case, the general rules on the recognition of credit risk mitigation instruments shall apply.
- The bank that holds the position cannot use the ECAI evaluations based on the credit enhancement provided by the bank itself or by another member of the banking group through guarantees, credit derivatives, credit lines, etc. In this case, the bank shall consider the position as unrated and apply the treatment provided for these positions.
- The use of assessments by different ECAs for positions in different tranches of the same securitization is not permitted.

3.3 Exceptions to Risk Weight for Unrated Securitization Exposures

A 1250% risk weight is required for unrated positions with the exception of the circumstances described under:

- a) Look-through approach
- b) Positions connected with Asset-Backed Commercial Paper (ABCP) programmes
- c) Eligible Liquidity Facilities

3.4 Treatment of unrated most senior securitization exposures (Look-through approach)

- Where a bank holds or guarantees the most senior exposure in a traditional or synthetic securitization that is unrated, it may apply the "look-through" approach to determine the risk weight of the underlying exposures **provided the composition of the underlying pool is known at all times**. Under this approach, the unrated



most senior position receives the average risk weight²¹ of the underlying exposures subject to supervisory review.

- If the resulting weighted average risk weight is higher than the risk weight of the securitization exposure below it, then the risk weight of the latter shall apply. However, where the bank is unable to determine the risk weights assigned to the underlying credit risk exposures, the unrated position must be risk weighted at 1250%.

3.5 Treatment of exposures in a second loss or better position in an Asset-Backed Commercial Paper (ABCP) programmes

Where a bank holds unrated securitization exposures that is connected with an ABCP programme, such exposure will be subject to a risk weight which is the higher of 100% or the highest risk weight assigned to any of the underlying individual exposures covered by the facility provided that the following requirements are satisfied:

- a) The exposure is economically in a second loss or better position and the first loss position provides significant credit protection to the second loss position;
- b) The associated credit risk is the equivalent of investment grade or better; and
- c) The bank that holds such unrated securitization exposure does not also hold or retain the first loss position in the same ABCP programme.

3.6 Risk weights for eligible liquidity facilities

- Liquidity facilities shall be deemed eligible where the following conditions are satisfied:
 - a) The contractual clauses relating to the liquidity facility clearly identify and limit the circumstances under which the facility may be drawn;
 - b) It is not possible for the liquidity facility to be drawn so as to provide credit enhancement by covering losses already incurred at the time of draw-down (for

²¹Banks must be able to demonstrate that the composition of the underlying pool and the relevant risk weight of each individual exposure within the pool are quantifiable at all times.



example, by providing liquidity in respect of assets in default at the time of draw-down or by acquiring assets at more than fair value);

- c) The liquidity facility is not used to provide permanent or regular funding for the securitization;
 - d) Repayment of utilized liquidity facilities are not subordinated to the claims of other creditors of the securitization, except for payments arising in respect of interest rate or currency derivative contracts, fees or other such payments that are subject to waiver or deferral;
 - e) It is not possible for the liquidity facility to be drawn after all applicable credit enhancements from which the facility would benefit (specific or general) are exhausted;
 - f) The facility includes a specific provision that:
 - i) Provides for an automatic reduction in the amount that can be drawn equal to the amount of the assets in default; or,
 - ii) Where the securitized portfolio consists of rated assets, terminates the facility if the average quality of the securitized assets falls below the equivalent of investment grade.
- Where the above conditions are met, the bank may apply a **50%** CCF to the eligible liquidity facility regardless of the maturity of the facility. However, if an external rating of the facility itself is used for risk-weighting the facility, a **100%** CCF must be applied.
 - A conversion factor of **0%** shall apply to liquidity facilities that are unconditionally revocable without advance notice, provided that the conditions set out above are satisfied and the repayment of utilized facility are senior to any claims on the cash flows arising from the securitized assets.

3.7 Treatment of overlapping exposures

- Where a bank has two or more overlapping positions in a securitization that may be drawn under various conditions (e.g. provision of a liquidity facility and a credit enhancement in a securitization transaction), they shall be treated as a single



position to the extent they overlap²². Where the overlapping facilities are subject to different capital treatments, the treatment that results in the highest capital charge should be applied on the overlapping portion.

- However, if overlapping facilities are provided by different banks, each bank must hold capital for the maximum amount of the facility.

3.8 Treatment of securitizations of revolving underlying exposures with early amortization provisions

- In the case of the sale of revolving assets through a securitization transaction that contains an early amortization provision, the originating bank shall calculate a capital requirement to cover the risk underlying the repurchase of the securitized assets in addition to the capital requirement for the securitization positions.
- Where the securitized assets include both revolving and non-revolving items, the originating banks shall apply the additional capital requirement to that portion of the securitized pool that contains the revolving assets. In calculating the additional capital requirement, a distinction shall be made between the originator's interest and the investors' interest. The originator's interest shall not be subordinate to the investors' interest.
- The exposure of the originating bank associated with its rights in respect of originator's interest shall not be considered a securitization position but as a proportionate exposure to the securitized assets as if they had not been securitized and included in the calculation of the capital requirement for credit risk.
- In determining the additional capital requirement, the risk-weighted amount shall be obtained by multiplying the amount of the **investors' interest** by the product of the appropriate conversion factor and the average risk weight for the securitized assets, calculated under the standardized approach as if the assets had not been securitized.

Capital requirement for originating banks = (Investors' interest) x CCF x (Risk weight of underlying exposures)

²²For example, if a bank provides a credit enhancement covering 20% of the underlying asset pool in an ABCP programme and a liquidity facility covering 100% of the same underlying asset pool, the bank would be required to hold capital against 20% of the underlying asset pool for the credit enhancement it is providing and 80% of the liquidity facility provided to the underlying asset pool. The overlapping portion between the credit enhancement portion and the liquidity facility portion would be subject to a capital treatment which results in the highest capital charges.



- The appropriate conversion factors (CCF) to be applied shall be based on the following factors:
 - i) The speed of the repayment mechanism, i.e. whether the early amortization repays investors through a controlled or non-controlled mechanism;
 - ii) The type of revolving assets securitized, i.e. whether or not they are unconditionally cancellable without notice by the originating bank.
- An early amortization provision shall be considered to be “controlled” where the following conditions are met:
 - a) The originating bank has an appropriate capital and liquidity management 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 there is a pro-rata sharing between the originator’s interest and the investors’ interest of payments of interest and principal, expenses, losses and recoveries based on the value of the assets securitized at one or more reference points during the month;
 - c) The amortization period is sufficient to repay or recognize as in default at least 90% of the total debt (the sum of the originator’s interest and the investors’ interest) outstanding at the beginning of the early amortization period;
 - d) During the amortization period, the speed of repayment shall be no more rapid than would have been achieved using straight-line amortization.
- Securitization transactions with early amortization clauses that do not satisfy the conditions above will be treated as a non-controlled early amortization

3.8.1 Determination of CCFs for controlled and non-controlled early amortization features

- In the case of securitizations involving **retail revolving assets that are unconditionally cancellable without notice** and are subject to an early amortization provision that is triggered when the excess spread falls to a certain level, the appropriate conversion factor shall be based on a comparison between the three-month average excess spread and the contractually established excess spread level at which excess spread is required to be trapped.



- Where the securitization does not contractually provide for excess spread to be trapped, the trapping point shall be deemed to be 4.5% points greater than the excess spread level that triggers early amortization.
- The appropriate conversion factor shall be determined separately for each retail securitization transaction with controlled and non-controlled early amortization provisions (see table below), expressed as the ratio between the three-month average excess spread and trapping level excess spread.

Conversion factor for calculating the additional requirement		
Ratio between the average excess spread and trapping level excess spread	Securitizations with "controlled" early amortization provisions	Securitizations with "uncontrolled" early amortization provisions
Greater than 133.33%	0%	0%
From less than 133.33% to 100%	1%	5%
From less than 100% to 75%	2%	15%
From less than 75% to 50%	10%	50%
From less than 50% down to 25%	20%	100%
Less than 25%	40%	100%

- All other securitized revolving exposures (i.e. those that are committed and all non-retail exposures) with controlled early amortization features will be subject to a **CCF of 90%** against the off-balance sheet exposures.
- All other securitized revolving exposures (i.e. those that are committed and all non-retail exposures) with non-controlled early amortization features will be subject to a **CCF of 100%** against the off-balance sheet exposures.



- The total capital requirement for all the originating bank's positions involving early amortization will be subject to a maximum capital requirement equal to the greater of:
 - i) the capital required for retained securitization exposures; or
 - ii) the capital requirement that would apply had the exposures²³ not been securitized²⁴
- Originating banks shall not be required to calculate any additional capital requirement for:
 - i) Securitizations of revolving assets whereby investors remain fully exposed to the credit risk of future draws, so that the risk on the securitized assets does not return to the originating bank even after an early amortization event has occurred; this occurs even where the early amortization provisions mirror the time structure of the revolving assets transferred;
 - ii) Securitizations where any early amortization provision is triggered solely by events not related to the financial performance of the securitized assets or of the originating bank, such as, material changes in tax laws or other regulations.

²³ The assets in respect of the originator's interest shall not be included among the securitized exposures.

²⁴ Any gains on sale deducted from Tier 1 capital shall not be taken into consideration in calculating the maximum requirement.



CHAPTER THREE: CREDIT RISK MITIGATION

1.0 *INTRODUCTION*

- Credit Risk Mitigation (CRM) techniques consist of the use of relevant financial collateral, guarantees, derivatives, estate mortgages and lease transactions or other instruments in relation to all banking book exposures and asset classes, that, would reduce the risk recognised in calculating the bank's capital requirements.
- Where a rating has already taken into account a particular guarantee which has been pledged by a borrower, then such guarantee cannot be considered any longer for purposes of credit risk mitigation.
- Banks must demonstrate to the CBN that they have adequate risk management policies and procedures to control risk arising from the use of CRM techniques

2.0 *Credit Risk Mitigation Categories*

- Unless otherwise specified, two categories of credit risk mitigation are recognised for standardized credit risk capital requirement calculation methods: funded and unfunded credit risk mitigation.

2.1 *Funded credit risk mitigation:*

- a) Financial collateral;
- b) Master netting agreements;
- c) On-balance-sheet netting;
- d) Other funded credit protection

2.2 *Unfunded credit risk mitigation:*

- a) Guarantees and counter guarantees;
- b) Credit derivatives²⁵.

²⁵ Among credit derivatives, credit linked notes shall be subject to the same specific eligibility requirements as for unfunded credit protection (credit derivatives) and shall be subject to the same prudential treatment as for funded credit protection (amounts paid upon issuance to the bank granting the loan shall be treated as cash collateral).



3.0 GENERAL REQUIREMENTS FOR ACCEPTING INSTRUMENTS AS CREDIT RISK MITIGANTS FOR CAPITAL CALCULATION²⁶

- The requirements for any of the credit risk mitigants to be used must have been met at the time the credit protection is established and compliance shall continue over its duration.
- The general requirements²⁷ seek to ensure the legal certainty and effectiveness of credit protection, including:
 - i) The binding nature of the legal commitment between the parties,
 - ii) Its enforceability and validity in the local jurisdiction
 - iii) Completeness of documentation,
 - iv) Enforceability of the protection in all relevant jurisdictions against third parties and
 - v) The timeliness of liquidation in the event of breach.

3.1 *Legal certainty*

- Credit protection acquired by a bank shall be legally valid, effective, binding on the protection provider and enforceable in all relevant jurisdictions, including in the event of the insolvency or bankruptcy of the underlying borrower and/or protection provider²⁸.
- In particular, the bank shall:
 - a) Ensure in advance that the instrument used confers a full and freely enforceable right to activate the protection.
 - b) Fulfil any requirements to ensure that the credit protection is valid, effective, binding and enforceable under the applicable law. These shall include, but not limited to:
 - i) registration and perfection of deeds of mortgage,

²⁶Recognition of the impact of credit risk mitigation tools shall be subject to satisfaction of the general requirements described in this section as well as additional specific requirements applicable to the different types of transactions. The general and specific requirements must have been met at the time the credit protection is established and compliance shall continue over its duration. The CBN shall verify the adequacy of the organisational and control arrangements adopted for CRM during the supervisory review process.

²⁷Specific requirements are prescribed for the features of each form of CRM and are designed to ensure a high degree of effectiveness of the credit risk mitigation.

²⁸In general, the possibility of bringing a revocation action shall not mean that the 'legal certainty' requirements for credit risk mitigation instruments have not been met. Therefore, the related effects for regulatory capital purposes may be recognised as from the establishment of the credit protection, without waiting for the consolidation period to lapse.



- ii) establishing proper liens on property and other collateral or instruments acquired or created for credit protection, and
 - iii) obtaining and conserving appropriate documentation explicitly establishing the existence of the credit protection;
- c) Ensuring compliance with all relevant laws and regulations that may void the validity, effectiveness, binding and enforceability of the protection.

3.2 Organisational requirements

- Banks shall establish appropriate policies and processes taking account of the complexity of its organisational structure.
- Credit Protection must be managed by a system, which governs the entire process of obtaining, valuing, controlling and realising the CRM instruments used. Credit protection buyers must have in place documented policies and procedures that will:
 - i) Specify the types of CRM instruments eligible for regulatory capital purposes.
 - ii) Value and assess the impact of instrument on the overall risk profile of the exposure.
 - iii) Ensure that banks continue to perform a complete assessment of the credit risk of the protected exposure, even when the CRM has been recognised for regulatory capital purposes.
 - iv) Establish the appropriate means of measuring, managing and controlling concentration risk and residual risks arising from the CRM instruments e.g. failure, reduction or termination of protection.
 - v) Provide appropriate operational structures for ensuring compliance with the requirements for the recognition of CRM techniques for regulatory capital purposes.
 - vi) Ensure periodic reviews of the status of the legal documentation, the impact of any changes in the law and any consequent actions to be taken.
 - vii) Adopt specific measures to ensure the uniformity of local structure's assessments and operational procedures.

3.3 Timely liquidation

Credit Protection acquired by banks must be easily liquidated or realizable in a timely manner. To this end, each bank should have in place appropriate policies and



procedures for the disposal and realisation of any acquired credit protection should the need arise.

3.4 Disclosure

The recognition of CRM techniques for regulatory capital purposes shall be subject to the relevant disclosure requirements prescribed for financial institutions under Pillar III disclosure requirements.

4.0 STANDARDIZED APPROACH FOR FUNDED CREDIT PROTECTION

4.1 Financial Collateral

4.1.1 Specific requirements

For regulatory capital purposes, financial collateral shall have the characteristics described below:

1. Correlation

- There shall be no positive material correlation between the value of the financial collateral and the credit quality of the borrower.
- In all cases, securities issued by the borrower, or any related group entity, shall not be eligible to be financial collateral.

2. Fair value

- Banks should calculate the fair value of the collateral and revalue it at least once every six months or whenever they have reason to believe that a significant decrease in its fair value has occurred.

3. Segregation

- Where the financial collateral is held by a third party, banks shall ensure segregation of the assets of the third party from the collateral (external segregation) and the segregation of assets belonging to other parties held by the same custodian (internal segregation)²⁹.

²⁹In general, the segregation requirement may be deemed satisfied where the pledged instruments are specifically identified and attributable to the owner (for example, registered securities) or where, although fungible, the assets are held under a contractually governed custodial arrangement or using other methods that ensure internal and external segregation.



4.1.2 Methods of Calculating Capital Requirement

In calculating the capital requirement for credit exposures secured by eligible financial collateral, banks may use;

a) The simple method

The risk weight associated with the instrument provided as credit protection shall be applied to the collateralised portion of the exposure. Maturity mismatching is not permitted under this method. **The collateral must be pledged for at least the entire life of the exposure, it must be marked to market and re-valued at a minimum frequency of six months.** The portion of the exposure collateralised by the market value of the recognised collateral will receive a risk weight applicable to the collateral instrument.

b) The comprehensive method

Under this method, the amount of the exposure shall be reduced by the value of the collateral. In calculating the capital requirement, the value of the exposure and that of the **collateral shall be adjusted to take account of market price volatility** by applying appropriate haircuts to both amounts (collateral value and exposure value)³⁰.

If the exposure and the collateral are denominated in different currencies, the value of the collateral shall be further reduced by an appropriate adjustment that reflects possible fluctuations in the exchange rate.

Once the calculation method is elected, it shall be adopted for all exposures.

The methods described in this sub-section shall also apply to amounts paid to the lending bank in respect of the issue of credit linked notes and to eligible collateral given as part of securities or commodities repurchase transactions and securities or commodities lending or borrowing transactions, provided that they are assigned to the banking book.

See Annex D on the application of the calculation methods.

³⁰Unless cash is involved, the exposure value adjusted for volatility shall be higher than that of the original exposure, while the adjusted value of the collateral shall be lower than its original value. Maturity mismatching rules shall apply.



4.2 Master Netting Agreements

4.2.1 Specific Requirements

The effects of the reduction of credit risk due to bilateral netting contracts between the bank and a single counterparty relating to securities financing transactions shall be recognised, provided that in addition to the general requirements relating to legal certainty set out above, the contracts:

- Give the non-defaulting party the right to terminate and close-out in a timely manner all transactions under the agreement in the event of default, including in the event of the bankruptcy or insolvency of the counterparty;
- Provide for the netting, or other equivalent effect, of reciprocal debtor and creditor positions on transactions closed out under a master agreement so that a single net amount is owed by one party to the other.

The specific requirements for financial collateral where applicable must also be met.

The netting of banking book and trading book positions shall be permitted only where the transactions covered by the agreement satisfy the following conditions:

- a) All the transactions are re-valued daily at current market prices;
- b) The instruments used as collateral for the transaction are among those eligible as financial collateral (see Annex C).

These regulations shall apply to master netting agreements involving similar transactions (single-product netting) and master netting agreements involving different products (cross-product netting).

4.2.2 Methods of Calculating Capital Requirement

In calculating the capital requirement for credit exposures secured by master netting agreements under the standardized approach, banks are expected to use the comprehensive method only.



4.3 On-balance Sheet Netting

4.3.1 Specific Requirements

The recognition of the effects of on-balance-sheet netting shall be subject to the following specific requirements:

- i) The netting agreement shall be in writing, which shall specifically identify the assets (loans) and liabilities (deposits) subject to netting.
- ii) The bank shall be able to identify at any time, all the loans (assets) and deposits (liabilities) in respect of the same counterparty that are subject to the netting agreement;
- iii) In adopting precautions to preserve the effective availability of the liabilities (deposits) to be offset against the assets (loans), restrictions on the disposal of the liabilities shall be established.
- iv) The bank shall monitor and control relevant exposures on a net basis.

4.3.2 Methods of Calculating Capital Requirement

In calculating the capital requirement for credit exposures secured by on-balance netting agreements, banks may:

- i) In respect of liabilities (deposits) of the lending bank, apply the same treatment provided for cash collateral.
- ii) Where the liabilities subject to the netting agreement mature sooner than the asset, apply the provisions regarding maturity mismatch.

4.4 Other Funded Credit Protection

The instruments described below may be recognised for credit risk mitigation purposes. In calculating the credit risk mitigation, the unfunded credit protection calculation method shall be applied.

4.4.1 Deposits with third party institutions

The cash in the supervised institutions or similar instruments held by those outside of a custodial service and pledged in favour of the bank that calculates the requirement may be considered as a guarantee issued by the institution itself provided that:



- i) The borrower's claim against the third party institution is openly pledged or assigned to the bank and the pledge is legally effective and enforceable in all relevant jurisdictions;
- ii) The third party institution is notified of the pledge or assignment; and is able to make payment solely to the bank or to other parties with the bank's consent;
- iii) The pledge is unconditional and irrevocable.

4.4.2 *Life Insurance*

Insurance policies pledged to the bank may be treated as protection given by the company issuing the policy, provided that:

- a) The company providing the life insurance can be recognised as an eligible guarantor.
- b) The life insurance policy is openly pledged or assigned to the bank.
- c) The company providing the insurance is notified of the pledge or assignment and as a result may not pay the amount payable under the contract without the bank's consent.
- d) The declared surrender value of the policy is non-reducible;
- e) The bank has the right to cancel the policy and receive the surrender value in a timely fashion in the event of borrower default;
- f) The bank is informed of any non-payments under the policy by the policyholder;
- g) The credit protection is provided for the maturity of the loan. Where the insurance relationship ends before the loan relationship expires, the bank shall ensure that the amount deriving from the insurance contract serves as security until the end of the duration of the credit agreement;
- h) The pledge or assignment shall be legally effective and enforceable in all jurisdictions, which are relevant at the time of the conclusion of the credit agreement.

The value of the credit protection shall be the surrender value of the policy.



4.2.3 Financial Instruments Issued by Third Parties

- Financial instruments issued by supervised institutions that the issuer has undertaken to repurchase at the request of the bearer may be treated as a guarantee of the issuer.
- The value of the credit protection recognised shall be as follows:
 - a) Where the instrument will be repurchased at face value, the value of the protection shall be that amount.
 - b) Where the instrument will be repurchased at market price, the value of the protection shall be the value of the instrument calculated in accordance with the rules applicable to unrated debt securities.

5.0 STANDARDIZED APPROACH FOR UNFUNDED CREDIT PROTECTION

5.1 Guarantees³¹ and counter-guarantees

5.1.1 Specific requirements

Without prejudice to the general requirements set out for the recognition of the credit risk mitigation, the following additional conditions will apply for the recognition of the effects of guarantees for regulatory capital purposes:

- a) The credit protection shall be direct;
- b) The extent of the credit protection shall be clearly defined and incontrovertible;
- c) The credit protection contract shall not contain any clause that could allow the protection provider to unilaterally cancel the protection. If the contract allows the protection provider to withdraw, the agreement between the parties shall safeguard the coverage and all obligations arising, prior to the exercise of the withdrawal;
- d) The credit protection contract shall not contain any clause, the fulfilment of which is outside the direct control of the lending bank, which could have one of the following effects:

³¹ Guarantees include inter alia; i) bank guarantee (including blanket guarantee), ii) insurance guarantee, and iii) commitments undertaken in the delegation, novation and assumption of debt if they meet the requirements for unfunded credit protection.



- i) To increase the effective cost of the protection as a result of deteriorating credit quality of the protected exposure;
 - ii) To prevent the protection seller from being obliged to pay out in a timely manner in the event the original borrower fails to make any payments due;
 - iii) To allow the protection seller to reduce the maturity of the credit protection;
- e) In the event of default of the counterparty, the bank shall have the right to recoup, in a timely manner, any claim due under the guarantee³². In particular, payment shall not be subject to the lending bank having to pursue the borrower.
- f) The guarantee shall cover all payments the borrower is required to make in respect of the claim. Where certain types of payments are excluded from the guarantee, the recognised value of the guarantee shall be adjusted to reflect the limited coverage;
- g) The guarantee shall be an explicitly documented obligation assumed by the guarantor.

In the event of an asset mismatch, guarantee contracts shall contain a cross default clause under which default in respect of a specific credit exposure of a given borrower shall extend to all exposures to the same person.

5.1.2 Eligible guarantors

Guarantees issued by parties falling within the categories listed below shall be recognised:

- a) Central governments and central banks;
- b) Public sector entities and regional and local authorities;
- c) Multilateral development banks;
- d) Supervised institutions;

³² In the case of supplementary unfunded credit protection securing residential mortgage loans, the contract may establish that the guarantor shall make payment within 24 months.



- e) Corporates that have a credit assessment by an ECAI associated with credit quality step 2 or above.

5.1.3 Methods of Calculating Capital Requirement

In calculating the capital requirement:

- a) Banks may substitute the risk weight of the borrower with that of the guarantor.
- b) The value of the credit protection provided by a guarantee shall be the amount that the protection provider has undertaken to pay in the event of the default of the borrower.
- c) Where the guarantee is denominated in a currency different from that in which the exposure is denominated (currency mismatch) the value of the credit protection shall be reduced as provided for in Annex F.
- d) In calculating the capital requirements, a guaranteed exposure with respect to borrowers assigned to the retail exposure portfolio may be valued as if it were assigned to the portfolio in which the guarantor is classified.
- e) The regulations set out in this section shall apply in the event of maturity mismatch.
- f) Where the protected amount is less than the exposure value and the secured and unsecured portions are of equal seniority (i.e. the bank and the protection provider share the losses on a pro-rata basis), the capital requirements shall be reduced proportionately.
- g) Where the protected amount is less than the exposure value and the secured and unsecured portions are of unequal seniority (i.e. the bank and the protection seller are liable for losses with different levels of seniority), with the risk being segmented (tranched transactions), the regulations governing securitisation operations shall apply.

5.1.4 Counter-guarantees and indirect guarantees

- Where an exposure is covered by a guarantee that is counter-guaranteed by one of the entities in categories a) through c) listed above, the exposure may be treated as covered by a guarantee provided by the counter-guarantor, provided that the following conditions are met:



- a) The counter-guarantee covers all the credit risk elements of the protected exposure;
 - b) Both the original guarantee and the counter-guarantee meet the requirements for guarantees, except that the counter-guarantee need not be direct;
 - c) The bank is able to demonstrate that the cover is robust and that nothing in the historical evidence suggests that the coverage of the counter-guarantee is less than effectively equivalent to that of a direct guarantee by the counter guarantor.
- A counter-guarantee provided by one of the protection providers listed above shall be recognised even where it does not guarantee the direct guarantee of the exposure but rather a counter-guarantee of the direct guarantee provided by a protection seller that is not an eligible counter-guarantor.

5.2 Credit derivatives

5.2.1 Eligible Instruments

For the purposes of these regulations, the following types of credit derivatives and instruments that may be recognised:

- a) Credit default swaps;
- b) Total return swaps;
- c) Credit linked notes.

In order to be recognised for regulatory capital purposes, the protection shall be provided by a protection provider belonging to one of the categories listed in the section on eligible guarantors.

Where a bank uses a credit derivative in the supervisory trading book to hedge exposures in the banking book (internal hedges), the protection shall be recognised only if the credit risk transferred to the trading book is, in turn, transferred to one or more third parties through credit derivatives that satisfy the eligibility requirements provided for in these regulations.

5.2.2 Specific requirements

Without prejudice to the general requirements set out on CRM, recognition of credit derivatives shall be subject to the specific requirements applicable to guarantees and the following conditions:



- a) Subject to point b) below, the credit events specified under the credit derivative shall at a minimum include all the cases listed below, under the conditions specified:
 - i) The failure to pay the amounts due under the terms of the underlying obligation that are in effect at the time of such failure (with a grace period that is closely in line with or shorter than the grace period in the underlying obligation);
 - ii) The bankruptcy, insolvency or inability of the borrower to pay its debts, or its failure or admission in writing of its inability generally to pay its debts as they become due, and analogous events;
 - iii) The restructuring of the underlying obligation involving forgiveness or postponement of principal, interest or fees that results in a credit loss event (i.e. value adjustment or other similar debit to the income statement);
- b) Where the credit events specified under the credit derivative do not include restructuring of the underlying obligation as described in point (a)(iii) above, the credit protection may nonetheless be allowed subject to a reduction in the recognised value;
- c) In the case of credit derivatives providing for cash settlement, a robust valuation process shall be in place in order to estimate loss reliably. There shall be a clearly specified period for obtaining post-credit-event valuations of the underlying obligations;
- d) If the protection buyer's right and ability to transfer the underlying obligation to the protection provider is required for settlement, the terms of the underlying obligation shall provide that any required consent to such transfer may not be unreasonably withheld;
- e) The identity of the parties responsible for determining whether a credit event has occurred shall be clearly defined. This determination shall not be the sole responsibility of the protection seller. The protection buyer shall have the right or ability to inform the protection provider of the occurrence of a credit event.

An asset mismatch under a credit derivative shall only be allowed if:



- a) The reference obligation or the obligation used for purposes of determining whether a credit event has occurred, as the case may be, ranks *paripassu* with or is junior to the underlying obligation;
- b) The underlying obligation and the reference obligation or the obligation used for purposes of determining whether a credit event has occurred, as the case may be, share the same borrower (i.e. the same legal entity) and there are in place legally enforceable cross-default or cross-acceleration clauses.

5.3.3 *Method of Calculating Capital Requirement*

Without prejudice to the provisions of the following sub-section, treatment of credit default swaps and total rate of return swaps for regulatory capital purposes shall be the same as that for guarantees.

In the case of credit derivatives that do not include as a credit event restructuring of the underlying obligation involving forgiveness or postponement of principal, interest or fees that result in a credit loss event (e.g. the making of a value adjustment or other similar debits to the income statement), the value of the credit position:

- a) Shall be reduced by 40% where the amount that the protection seller has undertaken to pay is not higher than the exposure value;
- b) Shall be no higher than 60% of the exposure value where the amount that the protection provider has undertaken to pay is higher than the exposure value.

Credit linked notes issued by the lending bank shall be treated as cash collateral up to the amount collected.

5.3.4 *Unfunded mutual guarantees*

Where mutual guarantee systems provide unfunded credit protection, the specific requirement for guarantees shall be deemed satisfied where either of the following conditions are met:

- a) The bank has the right to obtain in a timely manner a provisional payment by the guarantor calculated to represent a robust estimate of the amount of the economic loss, including losses resulting from the non-payment of interest and other types of payment which the borrower is obliged to make, likely to be incurred by the bank proportional to the coverage of the guarantee. The



bank shall establish the appropriateness of the payment with respect to the losses incurred.

- b) The loss-protecting effects of the guarantee, including losses resulting from the non-payment of interest and other types of payments which the borrower is obliged to make, justify treatment as a guarantee.

6.0 Maturity mismatches

6.1 Rules for recognition of maturity

- a) Subject to a maximum of 5 years, the effective maturity of the protected asset shall be the longest possible remaining time before the borrower is scheduled to fulfil its obligations.
- b) Subject to the following paragraph, the maturity of the credit protection shall be the time to the earliest date at which the credit protection may terminate or be terminated.
- c) Where there is an option to terminate the protection that may be exercised at the discretion of the protection provider, the maturity of the protection shall be taken to be the time to the earliest date at which that option may be exercised.
- d) Where there is an option to terminate the protection that may be exercised at the discretion of the protection buyer and the terms of the arrangement at origination of the protection contain a positive incentive for the bank to call the transaction before contractual maturity, the maturity of the protection shall be taken to be the time to the earliest date at which that option may be exercised; otherwise such an option may be considered not to affect the maturity of the protection.
- e) Where a credit derivative is not prevented from terminating prior to expiration of any grace period required for a default on the underlying obligation to occur, the maturity of the protection shall be reduced by the amount of the grace period.



6.2 Effects on the valuation of credit protection

- a) Protection of less than three months residual maturity, the maturity of which is less than that of the underlying exposure, shall not be recognised.
- b) Where there is a maturity mismatch, the credit protection shall not be recognised where the original maturity of the protection is less than one year.
- c) Unfunded credit protection shall be recognised in the amount adjusted in accordance with Annex G for all banks.
- d) Where the bank uses the simple method in the prudential treatment of financial collateral, the residual maturity of the guarantee shall not be less than that of the exposure.



Definition of Terms

- **Asset mismatch** shall mean a situation in which the underlying asset differs from the reference obligation due to liquidity or changes in interest or exchange rates;
- **Asset-backed commercial paper (ABCP)** is a process by which an SPV (conduit) issues a commercial paper and uses the proceeds of such issuance primarily to obtain interests in various types of assets either through asset purchase or secured lending transactions. An ABCP programme includes several parties that provide services for the SPV; credit enhancement that provides loss protection and liquidity facilities that assist in the timely repayment of the commercial paper;
- **Asset-backed securities (ABS)** shall mean securities issued by securitization vehicles as part of securitization transactions having different levels of subordination in supporting losses;
- **Capital market-driven transaction** shall mean transactions giving rise to an exposure secured by collateral, which include a provision conferring upon the bank the right to receive margin frequently. These include margin lending and over-the-counter (OTC) derivatives with the exchange of margins between counterparties;
- **Cash assimilated instrument** shall mean certificates of deposit or other similar instruments issued by the bank that acquires protection;
- **Central government** shall mean the central government of a sovereign state;
- **Clean-up call option** shall mean a contractual option that permits the originating bank to repurchase or extinguish the securitization positions before all of the securitized assets have been repaid, when the amount of outstanding exposures falls below a certain threshold. In a traditional securitization, this is usually achieved through the repurchase of the remaining securitization positions. In a synthetic securitization, the option usually takes the form of a clause that extinguishes the credit risk protection of the securitized asset;



- **Collective Investment Schemes** shall mean a scheme in whatever form, including an open-ended investment company, in pursuance of which members of the public are invited to invest money or other assets in a portfolio, and in terms of which:
 - i) two or more investors contribute money or other assets and hold a participatory interest;
 - ii) the investors share the risk and benefit of investment in proportion to their participatory interest in a portfolio of a scheme or any other basis determined in the deed, but not a collective investment scheme authorized by another act.

The types of collective investment schemes applicable in Nigeria are;

- i) Unit Trust (open-ended or closed ended)
 - ii) Venture capital funds
 - iii) Open-ended Investment Companies
 - iv) Real Estate Investment Schemes
 - v) Specialized funds
- **Credit derivatives** shall mean contracts in which the protection provider is required to perform a contractually-agreed obligation triggered by a specified credit event; such obligation consists of paying an amount equal to: i) the decline in the value of the reference obligation with respect to the initial value ("cash settlement variable"); ii) the entire notional value of the reference obligation in exchange for physical delivery of the reference obligation or another equivalent financial instrument ("deliverable obligation") specified in the contract; iii) a specified fixed amount ("binary payout");
- **Credit enhancement** shall mean a contractual arrangement whereby the credit quality of a securitization position is better than what it would have been in the absence of this enhancement. Credit enhancement may be provided by more junior tranches in the securitization and other types of credit protection;



- **Credit event** shall mean an event agreed by the parties that triggers the protection provider's obligation to fulfil the undertaking established in the contract;
- **Early amortization provision** in securitized positions shall mean a contractual provision that, upon the occurrence of specified events, triggers repayment of investors' securitization positions prior to the originally stated maturity of the securities issued;
- **Excess spread** shall mean the difference between the revenue flows from the securitized assets and the costs and expenses connected with the securitization (for example, interest paid to holders of the ABS securities and servicing commissions);
- **Exposures** shall mean on-balance sheet assets (for example, loans, shares, bonds, subordinated loans) and off-balance-sheet assets (for example, guarantees issued). Exposures shall not include assets deducted from regulatory capital and those allocated to the supervisory trading book subject to capital requirements for market risk;
- **External Credit Assessment Institution (ECAI)** shall mean a credit assessment agency recognized by the Central Bank of Nigeria;
- **Fair value** shall mean the amount at which an asset may be exchanged, or a liability settled, in a free transaction between knowledgeable, independent parties.
- **Federal government** shall mean the government of the Federal Republic of Nigeria;
- **First losses** in securitized positions shall mean losses on securitized portfolios, the amount of which reduces the right of securitization positions to receive payments, starting with that with the highest degree of subordination;
- **First-to-default derivatives** shall mean contracts referring to a number (basket) of borrowers under the terms of which the protection provider's payment obligation is triggered by the first default in the basket and that this credit event terminates the protection afforded by the derivative contract;



- **Funded credit protection** shall mean the credit risk mitigation techniques that give the protection buyer the right to satisfy its claim with specified assets or cash amounts. These include financial collateral, real estate collateral and movable property collateral (other physical collateral), credit linked notes, trade receivables, on- and off-balance sheet netting; other types of protection are listed in sub-section 4.4 of this chapter. Funded credit protection shall also include guarantees given through securities repurchase and lending/borrowing transactions and the related master netting agreements, as well as leasing transactions;
- **Future margin income (FMI)** shall mean the amount of income anticipated to be generated by the relevant exposures over a certain period of time that can reasonably be assumed to be available to cover potential credit losses on the exposures (i.e. after covering normal business expenses). FMI usually does not include income anticipated from new accounts.
- **Gain-on-sale** shall mean any residual interest retained by the originating bank that is, an on-balance sheet asset that represents a retained beneficial interest in a securitization accounted for as a sale, and that exposes the originating bank to any credit risk directly or indirectly associated with the transferred asset, that exceeds a pro rata share of that originating bank's claim on the asset.
- **Implicit support** securitized positions shall mean credit enhancement provided by the originator or by the sponsor in excess of its contractual obligations to reduce actual or potential losses by holders of securitization positions.
- **Investment grade:** A securitization exposure is deemed to be of investment grade if an ECAI recognized by the bank has assigned it a rating within credit quality steps 1 to 3.
- **Investor** shall mean the person that holds a risk position in a securitization;
- **Investors' interest** shall mean the portion of the pool of revolving assets that forms the complement to the originators' interest.



- **Loan to value ratio** shall mean a ratio used by lenders to express the ratio of loan to the value of an asset purchased. The higher the ratio, the more riskier the loan will be considered to the lender.
- **Liquidity facility** shall mean a securitization position arising from a contractual agreement to provide funding to ensure the timeliness of cash flows to investors;
- **Margin lending** shall mean credit extended by an intermediary in connection with the purchase, sale, carrying or trading of securities by the counterparty for which an exchange of margins is required. Margin lending shall not include traditional financing collateralised by securities;
- **Master netting agreements** are legal agreements between two parties that have multiple derivatives contracts with each other that provide for the net settlement of all contracts through a single payment, in a single currency, in the event of default or termination of any one contract.
- **Maturity mismatch** shall mean a situation where the residual maturity of the credit protection is less than that of the protected exposure;
- **Nth-to-default derivatives** shall mean contracts referring to a number (basket) of borrowers under the terms of which the protection provider's payment obligation is triggered by the nth default in the basket; borrowers may be assigned different settlement amounts;
- **Originating bank:** A bank shall be considered an originating bank in a securitization transaction if it meets either of the following conditions:
 - i) The bank originates directly or indirectly (e.g. a bank purchases a third party financial instrument via its balance sheet or acquires credit risk through credit derivatives and subsequently sells or transfers to an SPV) the underlying exposures included in the securitization; or
 - ii) The bank serves as a **sponsor** of an ABCP conduit or similar programme that acquires exposures from third-party entities. In the context of such a 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 programme,



places securities into the market, or provides liquidity and/or credit enhancements.

- **Originator's interest** shall mean the value of the portion held by the originating bank in a portfolio of revolving exposures, the drawn amounts of which have been securitized. This portion shall be equal to the ratio between the amount of the securitized drawn amounts whose cash flows are not available to repay investors in the securitization and total securitized drawn amounts. The undrawn amounts shall also be multiplied by this ratio to determine the portion of the available margin attributable to the originator and the portion attributable to the investors.
- **Protection buyer** shall mean the party that purchases protection against credit risk (or sells the credit risk);
- **Protection provider** shall mean the party that sells the credit risk protection (or purchases the credit risk);
- **Rating** shall mean the credit assessment assigned by an ECAI;
- **Reference entity** shall mean the party/parties or country (in the case of sovereign risk) to which the reference obligation refers;
- **Reference obligation** shall mean the obligation used to determine the cash settlement value or the deliverable obligation;
- **Reference rate** shall mean the market interest rate increased or decreased by a specified spread;
- **Revolving underlying exposures** involve exposures where the borrower is permitted to vary the drawn amount and repayments within an agreed limit under a line of credit (e.g. credit card receivables and corporate loan commitments)
- **Securities financing transactions** shall mean securities or commodities repurchase/reverse repurchase transactions, securities or commodities lending/borrowing transactions and margin lending transactions;



- **Securitization position** shall mean any type of exposure to a securitization, such as securities issued by special-purpose vehicles, liquidity facilities, subordinated loans, interest rate or currency derivative transactions performed as part of a re-securitization;
- **Securitization** shall mean a transaction that divides the credit risk of an asset or portfolio of assets into two or more tranches and in which:
 - i) Payments in the transaction are dependent on the performance of the asset or portfolio of assets in question;
 - ii) Tranches have different degrees of subordination in supporting the losses of the securitized assets or portfolio;
- **Securitized assets** shall mean individual assets or groups of assets that have been securitized. These include loans, debt securities, equity securities, ABS securities and loan commitments.
- **Solicited rating** shall mean a rating assigned for a fee following a request from the entity evaluated. Ratings assigned without such a request shall be treated as equivalent to solicited ratings if the entity had previously obtained a solicited rating from the same ECAI;
- **Special-purpose vehicle (SPV)** shall mean the company or other legal entity other than the bank, organized for the purpose to carrying out one or more securitizations which possess the following characteristics:
 - i) its activities are limited solely to those appropriate to accomplishing that objective;
 - ii) the structure of the vehicle is designed to isolate the obligations of the vehicle from that of the originating bank, and;
 - iii) the holders of the beneficial interests in it may pledge or exchange those interests without restriction.
- **Supervised institutions** shall mean deposit money banks, discount houses and other financial institutions under the supervisory purview of the CBN.
- **Synthetic securitization** shall mean a securitization transaction in which the transfer of credit risk in two or more tranches is achieved through the use of



credit derivatives or guarantees with no transfer of the asset or portfolio of assets. Synthetic securitizations shall include transactions in which it is possible, using credit protection, to isolate within a portfolio composed of one or more assets a risk component that supports the first-loss portion of the portfolio (trashed transactions);

- **Total rate of return swaps ("TRORs")** shall mean contracts under which the protection buyer (also called the "total return payer") agrees to transfer all the cash flows generated by the reference obligation to the protection provider (also called the "total return receiver"), who agrees to transfer the cash flows associated with changes in a reference rate to the protection buyer. On the payment dates (or the termination date of the contract), the total return payer pays the total return receiver any increase in the value of the reference obligation (i.e. the positive difference between the market value and the initial value of the reference obligation). In the case of a decline in the value of the reference obligation, the total return receiver pays the equivalent amount to the total return payer³³;
- **Traditional securitization** shall mean a securitization through which credit risk is transferred by selling the securitized assets to a special-purpose vehicle that issues securities (ABS) that do not represent payment obligations of the originating bank. Traditional securitizations shall include the transfer of credit risk by means of loans granted by the vehicle to the originating bank (sub-participation);
- **Tranches** shall mean contractually established segments of credit risk associated with an exposure or a number of exposures, in which each segment is associated with a greater or lesser degree of subordination in supporting losses than another segment, without taking account of any credit protection provided by third parties directly to holders of positions in the tranches. Securitization exposures that cover the "first loss" incurred by the securitized portfolio represent the junior risk (for example, junior securities, subordinated loans);

³³ Basically, a TROR is a structured financial product combining a credit derivative and an interest rate derivative (interest rate swap).



- ***Underlying asset*** shall mean the on-balance-sheet asset for which protection has been acquired;
- ***Unfunded credit protection*** shall mean the credit risk mitigation techniques based on the undertaking of a third party to pay a specified amount in the event of the default of the borrower or on the occurrence of other specified credit events. These include guarantees and credit derivatives, with the exception of credit linked notes;
- ***Unsolicited rating*** shall mean a rating assigned without a request from the entity evaluated and without payment of a fee.



Definition of Past Due or Defaulted Exposures

Past due or defaulted exposures shall include; bad debts, substandard loans, and restructured exposures. Specifically, a default is considered to have occurred with regard to a particular obligor when either or both of the two following events have taken place:-

- i) The bank considers that the obligor is unlikely to pay its credit obligations to the banking group in full, without recourse by the bank to actions such as realizing security (if held).
- ii) The obligor is past due more than 90 days on any material credit obligation to the banking group.

The elements to be taken as indications of unlikelihood to pay include but are not limited to the following:

- The bank puts the credit obligation on non-accrued status (e.g. suspended interest).
- The bank makes a charge off or an account-specific provision or impairment resulting from a significant decline in credit quality subsequent to taking on the exposure (impairment provisions on equity exposures set aside for price risk do not signal default).
- The bank sells the credit obligation at a material credit related economic loss. (For securities financing, the facility should not be recorded as a default if the collateral is liquidated not due to the deterioration of an obligor's creditworthiness but to restore an agreed collateral coverage ratio given a fall in the value of collateral and this has been disclosed to the customer in writing at the granting of this facility).
- The bank consents to a restructuring of the credit obligation where this is likely to result in a diminished financial obligation caused by the material forgiveness, or postponement of principal, interest or (where relevant) fees. This constitutes a granting of a concession that the bank would not otherwise consider.
- Default of a related obligor. Banks must review all related obligors in the same group to determine if that default is an indication of unlikelihood to pay by any



other related obligor. Banks must judge the degree of economic interdependence between the obligor and its related entities.

- An obligor is in significant financial difficulty. An indication could be a significant downgrade of a borrower's credit rating.
- Default by the obligor on credit obligations to other financial creditors, e.g. other banks or other financial institutions.
- The bank has filed for the obligor's bankruptcy or a similar order in respect of the obligor's credit obligation to the banking group.
- The obligor has sought or has been placed in bankruptcy or similar protection where this would avoid or delay repayment of the credit obligation to the banking group.

Default at Facility Level

For retail exposures, banks are allowed to apply the definition of default at facility level, rather than at borrower level. For example, a borrower might default on a credit card obligation and not on other retail obligations. As such, default by a borrower on one obligation does not require a bank to treat all other obligations to the banking group as defaulted. However, banks should be vigilant and consider a borrower's cross-default of facilities if a default on one facility is representative of his incapacity to fulfill other obligations.

Re-ageing

The bank must have clearly articulated and documented policies in respect of the counting of days past due, in particular in respect of the re-ageing of the facilities and the granting of extensions, deferrals, renewals and rewrites to existing accounts. At a minimum, the re-ageing policy must include:

- approval authorities and reporting requirements;
- minimum age of a facility before it is eligible for re-ageing;
- delinquency levels of facilities that are eligible for re-ageing;
- maximum number of re-ageings per facility; and
- a reassessment of the borrower's capacity to repay.



These policies must be applied consistently over time, and must support the ‘use test’ (i.e. if a bank treats a re-aged exposure in a similar fashion to other delinquent exposures more than the past-due cut off point, this exposure must be recorded as in default for IRB purposes). Some supervisors may choose to establish more specific requirements on re-ageing for banks in their jurisdiction.

Treatment of overdrafts

Overdrafts must be subject to a credit limit and brought to the knowledge of the borrower. Breaches of the limit must be monitored. If the account was not brought under the limit after 90 days (subject to the applicable past-due trigger), it would be considered as defaulted. Banks must have in place rigorous internal policies for assessing the creditworthiness of customers who are offered overdraft accounts



ANNEX A: EXTERNAL CREDIT ASSESSMENT INSTITUTIONS

Introduction

For the purposes of determining risk weights under the standardized approach, the Central Bank of Nigeria shall recognize ECAIs to formulate opinions and make credible and transparent credit assessments.

The verification of compliance with the requirements and mapping of ratings to risk weight classes shall be performed by the CBN on the basis of the criteria specified in this section.

Recognition may be requested for in any one of the following categories:

- a) Solicited ratings;
- b) Unsolicited ratings provided that the ECAI only issues credit assessments of this kind.

1. Requirements for recognizing External Credit Assessment Institutions

- The Central Bank of Nigeria will only recognize legal persons as ECAIs.
- An ECAI may also request recognition for its subsidiaries in a single application, provided that the latter adopts analogous methodologies such that the assessments they issue can be considered equivalent to those of the applicant.
- ECAIs shall satisfy the following requirements for the purposes of receiving recognition:

a) Objectivity

- i. The methodology adopted shall take into account the factors material to differentiating the specific characteristics of the different positions assessed and is supported by statistical evidence from its use in the past
- ii. The robustness of the methodology shall be adequately supported by the available data concerning the default rates recorded for individual rating grades and the migration rates between different rating grades.
- iii. The methodology must have been applied in a consistent manner to all exposures in a given class and adequately discriminate between exposures in different classes;



- iv. The methodology must have been validated internally on the basis of historical experience;
- v. The methodology is usually calibrated in the light of systematic errors highlighted by the backtesting of outputs.

b) Independence

The formulation of ratings shall be free from external interference, and conflicts of interest with regard to ownership, customers and other activities performed by the ECAI and its analysis shall be managed appropriately. For this purpose, ECAs applying for recognition shall certify and demonstrate that:

- i. Measures have been taken to ensure independence from ownership and to prevent external political or economic pressures or constraints from jeopardizing the objectivity of credit assessments;
- ii. The organizational structure provides for the operational, human resource and, possibly, legal separation of rating activity from other activities, such as consulting and marketing, that could affect the objectivity of the assessments;
- iii. Internal rules are in place to prevent conflicts of interest concerning persons involved in assigning ratings;
- iv. Rating activities are profitable and adequate financial resources are available;
- v. The structure of fees charged the rated entities and the compensation of staff responsible for assigning ratings is not a function of the outcome of the assessment;
- vi. Measures have been taken to ensure the independence of the ratings concerning major customers that generate a significant share of revenues (greater than 5%);
- vii. They have sufficient staff with an appropriate level of professional expertise and experience in performing credit assessments (for example, at least one of the persons participating in the rating decision process should have at least three years of experience).
- viii. Internal corporate governance rules are clearly formalized;



- ix. They make adequate disclosure of any conflicts of interest;
- x. They have an internal audit function (or other similar function) that is hierarchically independent of the persons responsible for assigning ratings and is charged with verifying the effective application of the independence conditions.

c) Regular Review

- i) ECAIs shall have procedures to monitor any changes in the assessed entity's position that could lead to significant change in the rating and, if necessary, to amend the rating promptly;
- ii) ECAIs shall have a proven back-testing procedure;
- iii) Credit assessments shall be reviewed at least once a year.

d) Market Credibility

- i) The degree to which an ECAI's ratings are accepted at the international level;
- ii) Where an ECAI operates exclusively or primarily in its domestic market, it should provide evidence of reliance of its ratings by banks not belonging to the same banking group.

e) Transparency of Methodologies and Ratings.

- i) ECAIs shall disclose the principles underlying their rating methodology and any changes in the methodology in a manner that is understandable to users of the credit assessments
- ii) Credit assessments shall be accessible in a timely manner to all banks and, where banks are required to pay a commission, such commission shall be set in a transparent manner. The effective default rates and, where available, the theoretical probabilities of default associated with the individual rating grades shall also be accessible;

In assessing compliance with these requirements, the CBN shall consider the adoption of a code of conduct based on international best practices.



2. Recognition Process

The application for recognition may be submitted by the ECAI or the bank that intends to use such ECAI. For ECAs already recognized in other jurisdictions, such evidence shall be submitted to the CBN by the ECAI or the bank.

The application for recognition shall specify:

For which of the following sectors recognition is requested:³⁴

- a) Public finance;
- b) Commercial entities;
- c) Structured finance (including securitization positions)

Whether recognition is requested for solicited or unsolicited ratings

The application shall provide the information requested in sufficient detail, compliance with all the requirements for recognition indicated above. If the application is submitted by an ECAI, it shall be accompanied by:

- a) Certification by an independent external entity with proven professional expertise and high standing affirming the compliance of an ECAI with all the requirements for recognition. The entity shall also certify that, where the ratings are not accessible to the public, they correspond to those for the period in which they were produced;
- b) Certification of the banks that plan to use the ratings.
- c) Evidence that such ECAI is registered by the appropriate regulatory agencies as an eligible rating agency.

Where the application for recognition is submitted by a bank, the CBN may request the cooperation of the ECAI for the purposes of recognition as well as the certification referred to in point a) above.

The CBN may also consider other information in addition to that submitted in the application for recognition if it is deemed material and significant in evaluating the application.

³⁴Recognition may also be requested for sub-categories of borrowers within each class where the ECAI operates in specialised sectors (e.g. by size of the undertaking).



The CBN shall publish the list of recognized ECAIs and the related mapping through the appropriate channels.

4. Mapping

The credit assessments issued by ECAIs shall be associated with the risk weight classes established in these regulations (mapping).

Mapping shall be carried out by the Central Bank of Nigeria, taking account of quantitative and qualitative factors, with the latter including the definition of default used.

5. Ongoing Review

The CBN shall ascertain ongoing compliance with the recognition requirements. For this purpose, ECAIs shall provide the CBN with:

- i) Notice of any material change in their rating systems that would produce a change in the ratings of a significant portion of the entities rated in a given segment;
- ii) Mapping data updated on an annual basis
- iii) Update responses to the questionnaire set out below at least every four years (including certification by an expert as provided for in sub-section 2 – Recognition Process).
- iv) Any other material information which may assist the CBN in its continuous review.

INFORMATION THAT EXTERNAL CREDIT ASSESSMENT INSTITUTIONS SHALL PROVIDE IN THE APPLICATION FOR RECOGNITION (QUESTIONNAIRE)

General information

- Type of application:
 - a) for use in the standardized approach;
 - b) for risk weighting securitizations;
- Market segments for which recognition is requested:
 - a) Public finance;



- b) Commercial entities;
- c) Structured finance;
- Types of credit assessments to be issued (solicited or unsolicited), where both solicited and unsolicited ratings are issued, a brief description of the rationale behind the policy shall be provided;
- Countries where the applicant is active.

Presentation of the applicant

- Legal form and structure of the group to which the applicant belongs, if any;
- Ownership structure, list of shareholders that hold 10% or more of the share capital and/or exercise significant influence;
- Total number of employees specifying qualification and experience
- Total number of major customers³⁵ and the percentage of total revenues from services rendered to them;
- Financial information: financial statements for the past three years and forecasts for the next three years, where available.

Requirements

Objectivity

- A high-level description of the credit assessment methodology and the procedures through which it is applied (in a consistent manner) and reviewed.
- An explanation shall also be provided of the role and operation of any committees that approve the assessments and the significance of non-public information obtained from rated entities;
- For each of the borrower or exposure group for which a core methodology is applied,³⁶ a high-level description of the quantitative and qualitative inputs;
- A brief explanation by geographical area of the differences in the methodologies;
- A description of the procedures used to verify the consistency and discriminatory power of the methodologies, with details on the results generated by such analysis;

³⁵ Major customers shall be those who account for 5% or more of total revenues.

³⁶ Two methodologies shall be considered distinct when their core elements change. Adaptation of a methodology to the specific characteristics of a certain class of borrowers (for example, to take account of the characteristics of the geographical area in which an undertaking operates) shall not, for the purposes of this questionnaire, be considered a different methodology if the basic features remain unchanged.



- A Comparison of theoretical default probabilities – where available – and effective default rates;³⁷
- The results of internal validation.

Independence

- Identification and detailed description of all factors demonstrating compliance with the independence requirements for which specific certification is required. Evidence demonstrating that the requirements have been met shall also be attached.

Regular review

- General information on the frequency and scope of regular reviews, people involved, means used to ensure timely updating of data and assessments, automatic warning systems, mechanisms to enable systematic errors to feedback into changes in the methodology;
- A summary of the reviews carried out;
- An explanation of the methods for performing back-testing and certification that have been in use for at least one year.

Transparency

- Explanation and demonstration of the way in which the principles of the methodologies employed and changes made to them are disclosed to the banks involved.

Reputation

- Information demonstrating widespread reliance by the international market on the ratings issued. For example, the following factors may be considered:
- Market share, revenues generated by rating activities, and, more generally, financial resources available, any pricing based on the rating, the use of the ratings by banks for bond issues or assessing credit risk;
- Where an ECAI operates exclusively or primarily in its domestic market, it should provide evidence of reliance on its ratings by banks not belonging to the same banking group.

³⁷ This comparison shall be performed for at least the past five years for exposures other than in respect of securitizations, for which a ten-period period shall be used.



Disclosure of credit assessments

- Accessibility to the ratings on the part of banks;
- Where both solicited and unsolicited ratings are issued, the methods employed to enable banks to distinguish between the two shall be disclosed;
- Where access to ratings or other information needed for their use is granted in exchange for payment, the criteria used to determine the price and certification that pricing is transparent shall be described.

Mapping of ratings for commercial entities and public finance

This shall specify the following:

- The definition of default used and the time horizon;
- Most recent two three-year cumulative default rates (CDR);
- Average three-year CDR based on a five-year time series;
- Description of the methodology for calculating CDRs: method of aggregating defaults (weighting mechanism), selection of pool (static or dynamic, adjusted), etc.;
- For each rating grade, the number of defaults actually registered each year and the annual default rates based on a five-year data time series;
- Comparison between the actual and theoretical (where available) annual default rates;
- Transition matrices with the size of the cohorts or pool of issuers and the number of ratings withdrawn for each rating grade;
- Dynamic characteristics of the rating methodology (point-in-time or through-the-cycle);
- The rating scale adopted and the meaning of the rating categories;
- The geographic coverage of the rating system;

Mapping of securitization ratings

- Definition of default/impairment on which the default/impairment rates are calculated and the time horizon;



- Analysis of the performance of the rating system and description of its main features (choice of the time horizon, impact of withdrawn and cured ratings on default rates, how economic cycles are taken into account);
- Data on the default and/or loss/recovery rates based on a time series of at least ten years;
- Transition matrices with the size of the cohorts and the number of ratings withdrawn for each rating grade;
- The rating scale adopted and the meaning of the rating categories;
- The geographic coverage of the rating system.



ANNEX B: CLASSIFICATION OF GUARANTEES AND COMMITMENTS

HIGH RISK: CCF: 100%

- i. Guarantees having the character of credit substitutes;
- ii. Credit derivatives: commitments in respect of the trading of credit derivatives as a protection seller;
- iii. Acceptances;
- iv. Endorsements on bills not bearing the name of another bank;
- v. Irrevocable standby letters of credit having the character of credit substitutes;
- vi. Spot and forward purchase commitments for securities and other financial instruments other than foreign exchange, except for those allocated to the supervisory trading book and subject to the capital requirements for market risk as well as those with own equity instruments as the underlying;³⁸
- vii. Spot and forward deposits and loans to be made;
- viii. The unpaid portion of partly paid-up shares and securities, except for those allocated to the supervisory trading book and subject to the capital requirements for market risk;
- ix. Assets transferred with option for repurchase upon demand by transferee;³⁹
- x. Written put options on securities and financial instruments other than foreign exchange, except for written put options allocated to the supervisory trading book and subject to the capital requirements for market risk, as well as those with own equity instruments as the underlying;⁴⁰
- xi. Other lending commitments of certain utilization.

ABOVE AVERAGE RISK: CCF - 50%

- i. Irrevocable or confirmed documentary credits except for those in which the shipment of the goods serves as collateral or other self-liquidating transactions;

³⁸ The counterparty to which the risk weight refers shall be the entity that issued the financial instrument being traded.

³⁹ The counterparty to which the risk weight refers shall be the entity that issued the financial instrument being traded, or in the absence of an issuer, the borrower.

⁴⁰ The counterparty to which the risk weight refers shall be the entity that issued the financial instrument being traded, or in the absence of an issuer, the borrower.



- ii. Guarantees not having the character of credit substitutes;
- iii. Warranties and indemnities (including tender, performance, customs and tax bonds) and other guarantees;
- iv. Irrevocable standby letters of credit not having the character of credit substitutes;
- v. Facilities supporting securities issues (Notes Issuance Facility (NIF); and Revolving Underwriting Facility (RUF));
- vi. Undrawn credit facilities (lending commitments of uncertain utilization,⁴¹ commitments to provide guarantees or acceptance facilities) with an original maturity of more than one year.

MODERATE RISK: CCF: 20%

- i. Irrevocable or confirmed documentary credits in which the shipment of the goods serves as collateral or other self-liquidating transactions;
- ii. Undrawn credit facilities (lending commitments of uncertain utilization,⁴² commitments to provide guarantees or acceptance facilities) with an original maturity of up to one year, which may not be revoked unconditionally at any time without notice or that do not provide for automatic revocation due to deterioration in a borrower's creditworthiness;
- iii. Other medium/low risk assets.

LOW RISK: CCF is 0%

- i. Undrawn credit facilities (agreements to lend, purchase securities, provide guarantees or acceptance facilities) which may be revoked unconditionally at any time without notice, or that provide for automatic cancellation due to deterioration in a borrower's creditworthiness.
- ii. Retail credit lines may be considered as unconditionally revocable where the terms permit the bank to cancel them to the full extent allowable under consumer lending laws;
- iii. Other low-risk items

⁴¹Including securities.

⁴²Including securities.



For banks to apply low risk CCF for guarantees and other commitments, the following conditions must be satisfied;

- The bank has legal ability to cancel the exposure without prior notice
- The internal controls and monitoring mechanism can immediately detect any deterioration in the borrowers' credit worthiness
- No legal actions are instituted against the bank in respect of the exposures.



ANNEX C: FINANCIAL COLLATERAL

Eligible Instruments

The following instruments may be recognised as eligible financial collateral:

- a) Gold;
- b) Cash on deposit and cash equivalent instruments held by the bank purchasing protection; these include credit-linked notes issued by the bank purchasing protection.
- c) Debt securities issued by:
 - i. Central governments and their central banks, which securities have a specific rating from an ECAI of a credit quality step of between 1 and 4;
 - ii. International organisations and multilateral development banks to which a 0% risk weight is assigned;
 - iii. Public sector entities and state or local governments whose exposures meet the eligibility criteria for classification as liquid assets by the CBN;
 - iv. Multilateral development banks other than those under point ii), public sector entities and regional or local governments other than those under point iii) whose securities have a specific rating from an ECAI of a credit quality step of between 1 and 3;
 - v. Other entities whose securities have a specific rating from an ECAI of a credit quality step of between 1 and 3;
- d) Debt securities issued by supervised institutions and corporates, with a specific rating from an ECAI of a credit quality step of between 1 and 3 applicable to short term exposures;
- e) Unrated debt securities issued by entities whose exposures are treated as exposures to supervised institutions, provided that:
 - i. They are listed on a recognised exchange;
 - ii. They qualify as senior debt;
 - iii. All other issues of the same seniority by the issuing institution have a rating associated with credit quality steps 1 through 3;



- iv. The bank has no information to suggest that the issue would justify a rating, if applicable, below that indicated in the preceding indent;
 - v. The bank can demonstrate that the instrument has sufficient market liquidity;
- f) Equities and convertible bonds included in All Share Index (ALSI);
 - g) Units in Collective Investment Schemes which have a daily public price quote and the Collective Investment Scheme's assets are invested in the instruments listed above.
 - h) If the comprehensive method is used for the prudential treatment of financial collateral, the latter may also include:
 - i. Equities and convertible bonds not included in the All Share Index (ALSI) but traded on a recognised exchange;
 - ii. Units in Collective Investment Schemes if they have a daily public price quote and the unit trust's assets are invested in instruments listed above.



ANNEX D: COLLATERAL UNDER THE STANDARDISED APPROACH

Calculation Methods

1. Simple method

1. The risk weight envisaged for instruments provided as collateral shall apply, entirely or proportionately, to exposures secured, respectively, in whole or in part by financial collateral. The unsecured portion of the exposure shall receive the counterparty's (borrower's) risk weight.
2. The risk weight applied to the collateralised portion of the exposure shall be at least 20%, except in the cases expressly provided below.
3. The collateral shall be assigned a value equal to the fair value of the underlying instrument.

1.1. Risk weights: exceptions to the 20% minimum threshold

The secured portion of the following transactions may receive a risk weight of 0% provided that the conditions listed below are met.

1. Repurchase transactions and securities lending and borrowing transactions, where:
 - a) Both the exposure and the collateral are cash or debt securities issued by the persons listed in Annex A, letter c), points i) through iii) and receive a risk weight of 0% for the purposes of calculating the capital requirement;
 - b) Both the exposure and the collateral are denominated in the same currency;
 - c) Either the maturity of the transactions does not exceed one day or both the exposure and the collateral are subject to daily marking-to-market or daily re-margining;
 - d) The time between the last marking-to-market before a failure to re-margin by the counterparty and the liquidation of the collateral does not exceed four business days;
 - e) The settlement of the transactions occurs within a settlement system proven for that type of transaction;



- f) The documentation covering the agreement is standard market documentation for these types of transactions;
- g) The documentation governing the transaction provides for immediate termination in the event the counterparty fails to physically deliver cash, securities or margins or otherwise defaults;
- h) Upon any default event, regardless of whether the counterparty is insolvent or bankrupt, the bank has the unfettered, legally enforceable right to immediately seize and liquidate the collateral for its benefit.
- i) The counterparty is a core market participant.

For the purposes of the application of these rules, the category of core market participants shall include:

- 1. The Federal Government of Nigeria;
 - 2. Central Bank of Nigeria, and
 - 3. Licensed banks and discount houses in Nigeria
-
- 2. Over-the-counter derivatives transactions listed in the regulations governing counterparty risk whose exposure is calculated in accordance with such regulations, subject to daily marking-to-market, collateralised by cash or cash-equivalent instruments where there is no currency mismatch.
 - 3. Transactions in which the exposure and the collateral are denominated in the same currency and the collateral is either:
 - i. Cash on deposit or a cash equivalent instrument;
 - ii. Debt securities issued by one of the entities eligible to issue financial collateral, excluding public sector entities, if such securities have a 0%



risk weight for the purpose of calculating the capital requirement⁴³ and their fair value has been discounted by 20%.

Banks shall apply a 10% risk weight to the secured portion of exposures connected with the transactions specified in point i) where the counterparty is not a core market participant (see box). The transactions specified in point ii) shall also be subject to the same risk weight if they are secured by debt securities issued by one of the entities eligible to issue financial collateral, excluding public sector entities, if such securities have a 0% risk weight for the purpose of calculating the capital requirement.

2. Comprehensive method

The exposure value under the comprehensive method shall be calculated as follows:

Formula 1

$$E^* = \max \{0, [E \times (1 + He) - C \times (1 - Hc - Hfx)]\}^{44}$$

Where:

E* = The exposure value after risk mitigation

E = Current value of the exposure

He = Haircut appropriate to the exposure

C = The current value of the collateral received

Hc = Haircut appropriate to the collateral

Hfx = Haircut for currency mismatch between the collateral and exposure

⁴³Where the CBN has authorised the application of a 0% risk weight for repurchase transactions and securities lending and borrowing transactions involving securities issued by that sovereign, Nigerian banks may apply the same preferential treatment.

⁴⁴The risk weight for an asset secured by eligible financial collateral shall be obtained by multiplying the risk weight of the counterparty by an amount equal to the difference between the exposure amount and the value of the collateral. In order to take account of market price volatility, an appropriate ‘haircut’ shall be applied to both the collateral value and the exposure amount. With the exclusion of cash, the volatility-adjusted exposure value shall be higher than the value of the original exposure, and vice-versa for collateral. Where the exposure and the collateral are denominated in different currencies, the amount of the collateral shall be further reduced to reflect possible foreign exchange volatility.



In the case of exposures represented by loans and derivatives, "He" shall be equal to zero. Banks may apply a haircut of zero to repurchase transactions and securities lending and borrowing transactions only where they possess the characteristics set out in sub-section 1.1 of this Annex⁴⁵.

Where the collateral consists of a number of eligible instruments (basket of assets), the haircut on the basket shall be $H = \sum_i a_i H_i$, where a_i is the weight of the asset (as measured by units of currency) in the basket and H_i , the haircut applicable to that asset.

When the frequency of re-margining or revaluation is longer than the minimum, the minimum haircut numbers will be scaled up depending on the actual number of business days between re-margining or revaluation using the square root of time formula below:

Formula 2

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

Where:

H = haircut

H_M = haircut under the minimum holding period

T_M = minimum holding period for the type of transaction

N_R = actual number of business days between re-margining for capital market transactions or revaluation for secured transactions.

2.1 Standard supervisory haircut approach

In the case of daily revaluation, the haircuts to be applied to exposures and collateral consisting of debt securities, equity securities, cash and gold are those specified in Tables 1 through 4 below. Such haircuts are broken down by

- a) The type of instrument
- b) The liquidation period of the transaction

⁴⁵Where the CBN has authorised the application of a 0 haircut for repurchase transactions and securities lending and borrowing transactions involving securities issued by that sovereign, Nigerian banks may apply the same preferential treatment.



- c) The credit quality step,
- d) The residual maturity
- e) The issuer category for debt securities.

In the case of less-than-daily revaluation, the haircut shall be scaled up using formula (2) under the comprehensive calculation method above.

The minimum holding period for various products is summarised in the following table.

Transaction Type	Minimum Holding Period	Condition
Repo Style Transactions	Five Business Days	Daily Re margining
Other Capital Market Transactions	Ten Business Days	Daily Re margining
Secured Lending	Twenty Business Days	Daily Revaluation

For the purposes of determining credit quality steps, the provisions of Annex C concerning the identification of the various categories of eligible securities shall apply.

With regard to the other types of instruments:

- For non-eligible securities or commodities repurchase transactions and lending and borrowing transactions, the haircut applicable to non-main index equities listed on a recognised exchange shall apply;
- The haircuts applicable to eligible units in collective investment schemes shall be the weighted average haircuts that would apply to the assets, in which the fund has invested, having regard to the liquidation period for capital market-driven transactions. If the bank does not know the instruments in which the fund has invested, it shall use the highest haircut that would apply to any of the assets in which the fund may invest on the basis of its rules;
- Unrated debt securities issued by entities whose exposures are treated as exposures to supervised institutions that satisfy the eligibility criteria under point e of this Annex), shall receive a haircut that is the same as that for securities issued by such entities or by corporate with a rating associated with credit quality steps 2 or 3 as provided for under the standardized approach to credit risk.



Table 1: Debt securities other than those with short-term ratings

Credit quality step	Residual maturity	Debt securities issued by Sovereigns, PSE and Multilateral Development agencies to which risk weight of zero per cent is assigned			Debt securities issued by others		
		Liquidation period (%)			Liquidation period (%)		
		20 days	10 days	5 days	20 days	10 days	5 days
1	≤ 1 year	0.707	0.5	0.354	1.414	1	0.707
	> 1 and ≤ 5 years	2.828	2	1.414	5.657	4	2.828
	> 5 years	5.657	4	2.828	11.314	8	5.657
2 – 3	≤ 1 year	1.414	1	0.707	2.828	2	1.414
	> 1 and ≤ 5 years	4.243	3	2.121	8.485	6	4.243
	> 5 years	8.485	6	4.243	16.971	12	8.485
4	≤ 1 year	21.213	15	10.607	NA	NA	NA
	> 1 and ≤ 5 years	21.213	15	10.607	NA	NA	NA
	> 5 years	21.213	15	10.607	NA	NA	NA

Table 2: Debt securities with short-term ratings.

Credit quality step	Debt securities described in Annex A, letter c), points I through iii			Debt securities described in Annex A, letter c), points iv and v		
	Liquidation period (%)			Liquidation period (%)		
	20 days	10 days	5 days	20 days	10 days	5 days



1	0.707	0.5	0.354	1.414	1	0.707
2 - 3	1.414	1	0.707	2.828	2	1.414

Table 3: Equity instruments, cash and gold

Type of instruments or exposures	Liquidation period (%)		
	20 days	10 days	5 days
Main index equities and main index convertible bonds	21.213	15	10.607
Other equities and convertible bonds listed on a recognised exchange	35.355	25	17.678
Cash	0	0	0
Gold	21.213	15	10.607

Table 4: Haircuts for currency mismatches

Liquidation period (%)		
20 days	10 days	5 days
11.314	8	5.657



ANNEX E: MASTER NETTING AGREEMENTS

Calculation Methods

1. Comprehensive method

The exposure value fully adjusted for the volatility (E*) of exposures subject to a master netting agreement recognised for regulatory capital purposes with respect to securities financing transactions shall be calculated using the supervisory haircut approach, as contained in the description of the treatment of financial collateral under the comprehensive method.

The fully adjusted exposure value E* is obtained by netting the exposures under the agreement and the collateral as well as an increase that reflects the possible changes in the price of underlying securities and any foreign exchange risk.

This can be computed using the following formula:

$$E^* = \max \{0, [(\sum (E) - \sum (C)) + \sum (E_s \times H_s) + \sum (E_{fx} \times H_{fx})]\}$$

Where:

E* = the exposure value after risk mitigation

E = current value of the exposure

C = the value of the collateral received

E_s = absolute value of the net position in a given security

H_s = haircut appropriate to E_s

E_{fx} = absolute value of the net position in a currency different from the settlement currency

H_{fx} = haircut appropriate for currency mismatch

$\Sigma(E)$ is the sum of all the exposures (E) under the agreement;

$\Sigma(C)$ is the sum of all forms of collateral (C) under the agreement;



The net position in each type of security⁴⁶ or commodity (E_s) shall be calculated by subtracting from the total value of the securities or commodities of that type lent, sold or provided under the master netting agreement, the total value of securities or commodities of that type borrowed, purchased or received under the agreement.

The net position in each currency, other than the settlement currency of the master netting agreement (E_{fx}), shall be calculated by subtracting from the total value of securities denominated in that currency lent, sold or provided under the master netting agreement added to the amount of cash in that currency lent or transferred under the agreement, the total value of securities denominated in that currency borrowed, purchased or received under the agreement added to the amount of cash in that currency borrowed or received under the agreement.

The haircut appropriate to a given type of security or cash position (H_s) shall be applied to the absolute value of the positive or negative net position in the securities of that type.

The foreign exchange risk haircut (H_{fx}) shall be applied to the net positive or negative position in each currency other than the settlement currency of the master netting agreement.

⁴⁶“Type of security” shall mean all the securities which are issued by the same entity, have the same issue date and the same original maturity, are subject to the same terms and conditions and are subject to the same liquidation periods.



ANNEX F: UNFUNDED CREDIT PROTECTION

Treatment of Currency Mismatches

Where unfunded credit protection is denominated in a currency different from that in which the exposure is denominated (a currency mismatch) the value of the credit protection shall be reduced by the application of a haircut (H_{FX}) as follows:

$$G^* = G \times (1 - H_{FX})$$

Where;

- G is the nominal amount of the credit protection;
- G^* is G adjusted for any foreign exchange risk;
- H_{FX} is the haircut for any currency mismatch between the credit protection and the underlying obligation.



ANNEX G: MATURITY MISMATCHES

Valuation of Credit Protection

1. Funded credit protection for banks that apply the comprehensive method to financial collateral

The maturity of the credit protection and that of the exposure shall be reflected in the adjusted value of the collateral using the following formula:

$$C_{VAM} = C_{VA} \times (t - 0.25) / (T - 0.25^*)$$

Where:

- C_{VA} is the volatility adjusted value of the collateral as specified in the comprehensive method for calculating exposure value ($[C(1 - H_C - H_{FX})]$) or the amount of the exposures, whichever is lower;
- t is the number of years remaining to the maturity date of the credit protection calculated in accordance with the rules contained under the definition of maturity, or the value of T , whichever is lower;
- T is the number of years remaining to the maturity date of the exposure calculated in accordance with the rules contained under the definition of maturity, or 5 years, whichever is lower;
- t^* is 0.25.
- C_{VAM} shall be taken as C_{VA} further adjusted for maturity mismatch to be included in the formula for the calculation of the fully adjusted value of the exposure (E^*) as set out under the comprehensive method.

2. Unfunded credit protection for all banks

When there is a maturity mismatch with recognised credit risk mitigants (collateral, on-balance sheet netting, guarantees and credit derivatives) the following adjustment will be applied to derive the adjusted value of the credit protection:

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



Where:

- P^* is the amount of the protection adjusted for any currency mismatch;
- P_A is P^* adjusted for any maturity mismatch;
- t is the number of years remaining to the maturity date of the credit protection calculated in accordance with the rules contained under the definition of maturity, or the value of T , whichever is lower;
- T is the number of years remaining to the maturity date of the exposure calculated in accordance with the rules contained under the definition of maturity, or 5 years, where the former is higher;
- P_A is then taken as the value of the protection for the purposes of calculating the value of the protection.