



CENTRAL BANK OF
TRINIDAD & TOBAGO

**Policy Proposals for the Implementation of the Basel II/III
Capital Frameworks by the Central Bank of Trinidad &
Tobago**

Phase 1-Minimum Capital Requirements

Revised (following consultation and QISs)

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Background

In June 2006, the Basel Committee on Banking Supervision ('BCBS') issued a finalized Basel II Framework which comprehensively revised the 1988 Accord¹. The Basel II Framework introduces three (3) Pillars for the quantitative and qualitative treatment of capital. **Pillar 1** of the Basel II Framework expands **the minimum capital adequacy requirement** by including operational risk, in addition to credit and market risks. **Pillar 2** focuses on **enhanced risk management** while **Pillar 3** addresses transparency by encouraging **market disclosures** by banks.

In December 2010, the BCBS in response to the global financial crisis which began in 2007, revised the Basel capital framework yet again and issued Basel III which sought to improve the resilience of the banking sector by strengthening the regulatory capital framework, building on the three pillars of the Basel II framework. The reforms under Basel III seek to raise the quality and quantity of the regulatory capital base and enhance the risk coverage of the capital framework. The reforms are underpinned by a leverage ratio that serves as a backstop to the risk based capital measures and is intended to constrain excess leverage in the banking system, provide an extra layer of protection against model risk and measurement error. The BCBS also introduced a number of macro-prudential elements into the capital framework to help contain systemic risks arising from procyclicality and from the interconnectedness of financial institutions.

Commercial banks and non-bank financial institutions in Trinidad and Tobago licensed pursuant to the Financial Institutions Act, Chap. 79:09 (hereinafter collectively referred to as "banks") have been operating largely under Basel I since 1994. However, the structure and risks of the banking sector have changed significantly since then and it is imperative that the capital framework evolves to facilitate more effective capital management by banks. For example, operational risk is now a key risk facing banks but the current framework does not consider operational risk. Consequently, the Central Bank of Trinidad and Tobago (Central Bank) has commenced implementation of Basel II and some elements of Basel III.

Phase 1 of this process which was launched in November 2014 and is scheduled to be completed by December 2018 will introduce the following:

- the Standardized Approach for Credit Risk under Basel II;
- the Standardized Approach for Operational Risk under Basel II;
- a higher minimum Tier 1 Capital Ratio;
- a minimum Common Equity Tier 1 Ratio; and
- a higher minimum Capital Adequacy Ratio.

¹ International Convergence of Capital Measurement and Capital Standards (i.e. Basel I framework) which was released by the BCBS in 1988 and amended in 1996 treating with both the credit and market risk exposures of banks.

The Central Bank has consulted extensively with the sector on the Phase 1 proposals for the implementation of Basel II and Basel III (Basel II/III). Among other things, the Central Bank established a Basel II/III Technical Working Group which comprised representatives from the Central Bank as well as the industry. The Central Bank also conducted two Quantitative Impact Studies (QISs) to test the impact of the proposals prior to implementation. All banks and financial holding companies participated in the QISs and are therefore well placed to adopt the new Basel II/III Standards. The sector consultation and QISs have contributed significantly to the finalizing of policy positions reflected in this document.

From inception the Central Bank was also cognizant that the implementation of Basel II/ III was a significant change and therefore retained subject matter experts to assist with its Basel II/ III Implementation Plan. In 2017 the Central Bank also sought technical assistance (TA) from the International Monetary Fund's (IMF's) Caribbean Training Centre to review its Basel II/III Implementation Plan. That review indicated that the Central Bank has a well thought out and structured approach to Basel II/ III Implementation. The TA also made recommendations for the next phase of the Basel II/III Implementation Plan (i.e. Pillars 2 and 3 of Basel II and other Basel III elements) which will be launched in 2019.

1. Introduction

The Central Bank is revising the capital adequacy standards for banks via the implementation of Basel II/III. The current capital regime for banks complies largely with the Basel I Capital Accord issued by the BCBS in 1988². However, the existing framework is not sufficiently risk sensitive or granular to adequately treat with the risk of modern day banking business. The revisions to the capital regime for banks will therefore be aligned primarily with the requirements of the Basel II and Basel III frameworks.

The Central Bank's decision to implement Basel II/ III is influenced by a number of factors. Firstly, it accords with regional initiatives to harmonize capital standards. Within the region there are banks with cross-border subsidiaries. Regional supervisors therefore thought it desirable to harmonize the capital standards applicable to banks to facilitate consolidation and comparability and reduce regulatory arbitrage and regulatory burden as far as practical.

Secondly, the Basel II framework would enhance capital standards as, in the first instance, it requires capital allocation for key risks not considered in the existing capital framework such as operational risk, interest rate risk in the banking book and credit concentration risk. It would also increase the risk sensitivity of the capital framework as it more closely aligns banks' capital with the risks to which they are exposed. Along with helping to ensure the sufficiency of capital, the three-pillar approach under Basel II would help to improve risk management and transparency thereby encouraging a more holistic approach to capital management by banks.

It should be noted that the International Monetary Fund (IMF) in its 2011 Financial Sector Assessment Programme (FSAP) report of Trinidad and Tobago identified deficiencies in local capital requirements and made recommendations for amendments. Some significant recommendations included³:

- The introduction of capital charges for operational risk;
- Amending of the risk weights for sovereign exposures to align with Basel I or Basel II standards; and
- Implementing Pillars 2 and 3 of Basel II which treat with the supervisory review of banks' capital needs and disclosure of individual banks' information respectively.

A brief overview of Basel II is provided as follows:

² Revised to include market risk in 1996

³ Recommended in the Financial Stability Assessment of Trinidad and Tobago conducted by the IMF in 2010

- **Pillar 1 (Minimum Capital Requirement)** details the methodology by which the minimum capital requirement should be calculated. While Basel I only addressed capital charges for credit and market risks, Pillar 1 of Basel II introduces an additional capital charge for operational risk. Pillar 1 also gives greater recognition to credit risk mitigation instruments and introduces a comprehensive framework for the treatment of securitization exposure. Flexibility is built into this pillar as both simple and complex options are provided for the calculation of capital charges under the respective risk categories.

- **Pillar 2** seeks to ensure that capital management extends beyond the calculation of the minimum capital requirement. It requires banks to implement robust internal capital adequacy assessment programmes (ICAAPs) to ensure efficient risk management systems are in place, including stress testing. Banks must also determine the optimal level of capital required to support their business by considering all risks to which they are exposed (including risks not covered under Pillar 1 such as credit concentration risk, reputational risk and interest rate risk in the banking book). Pillar 2 also requires the Central Bank to review and verify the adequacy of the assessments carried out by banks.

- **Pillar 3** complements the Minimum Capital Requirement and Supervisory Review Process by providing a set of disclosure requirements which will allow market participants to assess the risks and capital adequacy of a bank. It seeks to enhance transparency and market discipline through qualitative and quantitative disclosures by banks.

The Central Bank has also given consideration to the requirements under Basel III which were introduced by the BCBS to enhance the resilience of banks to economic and financial shocks. Proposals under the Basel III framework include:

- i. **Redefining of capital with greater emphasis on common equity (Tier 1) capital** - aimed at improving the quality of capital and ultimately the loss absorbing capacity of banks;
- ii. **Increase in the minimum common equity (Tier 1 ratio) and the minimum tier one ratio**- aimed at improving both the quality and quantity of capital;
- iii. **Capital Conservation Buffer**- to help ensure adequate levels of capital by constraining the distribution of earnings consistent with capital ratios held by banks;
- iv. **Leverage Ratio**- provides a non-risk based capital measure to reduce the risk of excessive leveraging and supplement other risk based capital measures;
- v. **Liquidity coverage ratio (LCR)**- to promote resilience to short-term disruptions
- vi. **Net stable funding Ratio (NSFR)**- which encourages the maintenance of stable funding

- vii. **Capital Conservation Buffer**- which seeks to address systemic risk by requiring the maintenance of higher levels of capital by banks during periods of excessive credit growth.

Phased Approach to Implementation

Given the greater complexity of the Basel II/III proposals compared with existing capital requirements the Central Bank determined that a phased approach to implementation was appropriate. Phase 1, which is nearing completion, gives focus to Pillar 1 of Basel II, treating with the calculation of minimum capital requirements based on quantification of credit, market and operational risks. It should be noted that Basel II provides both simple and model based approaches for the determination of capital charges for credit, market and operational risk. However, the Central Bank like its regional counterparts opted for the simpler Standardized approaches.

Phase 1 is scheduled to be completed by end December 2018 but revised Capital Adequacy Regulations are needed in order for the new Basel II/ III rules to be effected.

In Phase 1 the Central Bank also proposes to implement two measures under the Basel III framework, namely:

- 1) An increase in the Minimum Tier 1 ratio; and
- 2) The introduction of the Minimum Common Equity Tier 1 ratio.

2. Purpose and Scope

This Policy Proposal Document outlines the Central Bank's approach to the implementation of **Minimum Capital Requirements** for banks. Specifically, it outlines proposals for the implementation of the following Pillar I elements:

- I. Standardized Approach (SA) for the calculation of capital charges for Credit Risk; and*
- II. Standardized approach (TSA) for the calculation of capital charges for Operational Risk.*

It should be noted that the current market risk methodology which was introduced by the Central Bank in 2008 will be maintained⁴. However the risk factors for the calculation of specific interest rate risk will be replaced with those under the Basel II Standardized market risk framework.

⁴ The methodology is outlined in the Central Bank's "Market Risk Instruction Manual" and is based on the 1996 Market Risk Amendment to the Basel I framework.

The paper also addresses other proposals for amendment of the local capital adequacy framework for banks.

These include:

- I. An increase in the Minimum Capital Adequacy Ratio from 8% to 10%;*
- II. An increase in the Minimum Tier 1 ratio to 7% (Basel III); and*
- III. The introduction of a Minimum Common Equity Tier 1 of 4.5% (Basel III).*

The requirements outlined in this paper will apply to all banks on both an individual and consolidated basis.

3. Credit Risk-Standardized Approach

1. Generally, the Standardized Approach (SA) measures credit risk in a standardized manner, aligning risk weights with the credit rating of a specific exposure. For capital adequacy purposes, banks may only use the ratings of external credit rating agencies recognized by the Central Bank. Appendix 3 provides details on the recognition of credit ratings and credit rating agencies for the purposes of determining capital requirements under the Basel II framework.
2. Risk weights are to be applied to both on-balance sheet and off-balance sheet exposures according to the classification of the exposure. Classes of exposures include:
 - a. Sovereign (Central Government and Central Banks);
 - b. Public Sector Entities;
 - c. Multi-Lateral Development Bank (MDB);
 - d. Banks and Securities Firms;
 - e. Corporates;
 - f. Regulatory retail portfolio;
 - g. Residential mortgages;
 - h. Commercial mortgages;
 - i. Past due loans;
 - j. Higher Risk assets; and
 - k. Other exposures;
3. Exposures are to be risk weighted net of specific provisions and partial write-offs.

3.1 Credit Ratings

Eligible Credit Rating Agencies

4. Basel II allows the use of credit ratings to determine the risk weight of credit exposures. In this regard, the Central Bank will only allow the use of credit ratings issued by recognized credit rating agencies. The Central Bank will recognize the credit ratings of the Credit Rating Agencies (CRA) specified in Appendix 3. This Appendix, which will be placed on the Bank's website, will be updated as necessary. Attention should be paid to the Ratings Equivalency Table in determining the applicable risk factor for a given exposure.
5. Any other CRA proposed for use by a bank must be deemed eligible for capital purposes by the Central Bank (see Appendix 3).

The Mapping Process

6. Banks must disclose the CRAs that they propose to use for the risk weighting of their assets by type of claims, the risk weights associated with the particular rating grades as determined by Central Bank through the mapping process as well as the aggregated risk-weighted assets for each risk weight based on the assessments of each eligible CRA.
7. Banks must use their chosen CRAs and their ratings consistently for each type of claim, for both risk weighting and risk management purposes. Banks will not be allowed to "cherry-pick" the assessments provided by different credit rating agencies.
8. The Central Bank will assign eligible CRA assessments to the risk weights available under the risk weighting framework outlined in this document, i.e. deciding which assessment categories correspond to which risk weights. The mapping process would be objective and result in a risk weight assignment consistent with that of the level of credit risk reflected in the respective tables (for the respective risk weight category). It would cover the full spectrum of risk weights.
9. In conducting the mapping process, the Central Bank will consider factors such as the:
 - a. size and scope of the pool of issuers that each CRA covers;
 - b. range and meaning of the assessments that it assigns; and
 - c. definition of default used by the CRA.

Multiple Assessments

10. If there is only one assessment by a CRA chosen by a bank for a particular claim, that assessment should be used to determine the risk weight of the claim.
11. If there are two assessments by CRAs chosen by a bank which map into different risk weights, the higher risk weight should be applied.
12. If there are three or more assessments with different risk weights, the assessments corresponding to the two lowest risk weights should be referred to and the higher of those two risk weights should be applied.

Consider the following:

CRA	Assessment	Corresponding risk weight
1	AA	20%
2	A	50%
3	BBB	100%

Given that the lowest risk weights are associated with the ratings of CRAs 1 and 2, the 20% AND 50% would be considered. The appropriate risk weight to be applied would therefore be 50%, i.e. the higher of the two risk weights.

Issuer versus Issue Assessment

13. Where a bank invests in a particular issue that has an issue-specific assessment, the risk weight of the claim will be based on this assessment.
14. Where the claim is an investment in an issue that has not been specifically assessed, the following general principles will apply:
 - a. **Credit Assessment of a specific debt:** In circumstances where the borrower has a high quality credit assessment⁵ on a specific debt, and the unassessed claim ranks *pari passu* or senior to claims with the high quality assessment in all respects, then the high quality assessment can also be applied to the unassessed claim. If not, then the high quality credit

⁵ For the purposes of paragraph 14, a high quality credit assessment is one with a risk weight lower than that which applies to an unrated claim.

assessment cannot be used and unassessed claims will receive the risk weight for unrated claims.

- b. **Credit Assessment of the issuer:** In circumstances where the borrower has a high quality credit assessment, this issuer assessment may be applied only to senior claims on that issuer. Other unassessed claims of a highly assessed issuer will be treated as unrated.
 - c. If either the issuer or a single issue has a low quality assessment (mapping into a risk weight equal to or higher than that which applies to unrated claims), an unassessed claim on the same counterparty will be assigned the same risk weight as is applicable to the low quality assessment.
15. Where banks intend to rely on an issuer- or an issue-specific assessment, the assessment must take into account and reflect the entire amount of credit risk exposure (principal and interest where applicable) that banks have with regard to all payments owed to them.
16. In order to avoid any double counting of credit enhancement factors, no supervisory recognition of credit risk mitigation techniques will be taken into account if the credit enhancement is already reflected in the issue specific rating.

Domestic currency and foreign currency assessments

17. Where unrated exposures are risk weighted based on the rating of an equivalent exposure to that borrower, the general rule is that:
- a. foreign currency ratings would be used for exposures in foreign currency; and
 - b. domestic currency ratings, if separate, would only be used to risk weight claims denominated in the domestic currency.

Level of Application of the Assessment

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

Solicited and Unsolicited Ratings

19. Banks should use solicited ratings from eligible CRAs. The Central Bank will allow the use of unsolicited ratings in the same way as solicited where the credit assessments of unsolicited ratings are not inferior

in quality to the general quality of solicited ratings. The use of unsolicited ratings will only be allowed where there is no available solicited rating.

20. However, there may be the potential for CRAs to use unsolicited ratings to put pressure on entities to obtain solicited ratings. Where such behaviour is identified, the Central Bank will consider whether to continue recognizing such CRAs as eligible for capital adequacy purposes.

Short Term / Long Terms Assessments

21. For risk-weighting purposes, all short-term assessments are deemed to be issue-specific. They can only be used to derive risk weights for claims arising from the rated facility. They cannot be generalized to other short-term claims, except under the following conditions:
 - a. The general preferential treatment for short-term claims (*see section: Claims on banks*) applies to all claims on banks of up to three months original maturity when there is no specific short-term claim assessment.
 - b. When there is a short-term assessment and such an assessment maps into a risk weight that is more favourable (i.e. lower) or identical to that derived from the general preferential treatment, the short-term assessment should be used for the specific claim only. Other short-term claims would benefit from the general preferential treatment.
 - c. When a specific short-term assessment for a short term claim on a bank maps into a less favourable (higher) risk weight, the general short-term preferential treatment for interbank claims cannot be used. All unrated short-term claims should receive the same risk weighting as that implied by the specific short-term assessment.
22. In no event can a short-term rating be used to support a risk weight for an unrated long-term claim. Short-term assessments may only be used for short-term claims against banks and corporates.
23. If a short-term rated facility attracts a 50% risk-weight, unrated short-term claims cannot attract a risk weight lower than 100%. If an issuer has a short-term facility with an assessment that warrants a risk weight of 150%, all unrated claims, whether long-term or short-term, should also receive a 150% risk weight, unless the bank uses recognized credit risk mitigation techniques for such claims.
24. The table below provides a framework for banks' exposures to specific short-term facilities, such as a particular issuance of commercial paper:

Short Term Rating		
S&P / Moody's	Fitch	Risk Weight
A-1 / P-1 ⁶	F1	20%
A2/P-2	F2	50%
A3/P3	F3	100%
Others ⁷		150%

3.2 Risk Weights: On-Balance Sheet Exposures

Claims on Sovereigns

25. Claims on sovereigns and their central banks will be risk weighted as follows:

Credit Assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk Weight	0%	20%	50%	100%	150%	100%

26. The 0% risk weight will apply to claims on the Government of Trinidad and Tobago or the Central Bank of Trinidad and Tobago. Such exposures must be denominated in domestic currency and funded⁸ in the Trinidad and Tobago dollars (TTD).
27. Claims on other sovereigns (i.e. overseas central governments and central banks) may be assigned the preferential risk weight applied by the foreign jurisdiction where the exposure is both funded and denominated in the currency of the said jurisdiction.
28. The 0% risk weight will apply to claims which are fully guaranteed by the Government of Trinidad and Tobago (which are denominated and funded in Trinidad and Tobago dollars). The guarantee must be explicit, unconditional, legally enforceable and irrevocable. The guarantee must satisfy the criteria set out under the Credit Risk Mitigation Framework.
29. Banks should apply a 0% risk weight to claims on the Bank for International Settlements (BIS) and the International Monetary Fund (IMF) and other similar type agencies as may be advised by the Central Bank.

⁶ The notations follow the methodology used by Standard & Poor's, Moody's Investors Service and Fitch Ratings. The A-1 rating of Standard & Poor's includes both A-1+ and A-1- and the F rating of Fitch ratings includes both the modifiers "+" and "-".

⁷ This category includes all non-prime and B or C ratings.

⁸ That is where the banks have corresponding liabilities denominated in that domestic currency.

Claims on Non-Central Government Public Sector Entities (PSEs)

30. An entity will be deemed a Public Sector entity (PSE) where it falls into one of the categories below⁹:

- a. State Government;
- b. Local Government;
- c. Other Government Bodies including:
 - a. Public Utilities;
 - b. Statutory Boards;
 - c. State Owned Non-Financial Institutions; and
 - d. State Owned Other Financial Institutions.

31. Claims on PSEs will be assigned a risk weight that is one category higher than the sovereign risk weight:

Credit Assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Sovereign Risk Weight	0%	20%	50%	100%	150%	100%
PSE Risk Weight	20%	50%	100%	100%	150%	100%

32. Claims on PSEs in Trinidad and Tobago which are funded and denominated in TTD will attract a risk weight of 20%¹⁰.

Claims on multilateral development banks (MDBs)

33. Claims on MDBs will generally be risk weighted in accordance with the table below:

Credit Assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk Weight	20%	50%	50%	100%	150%	50%

34. Claims on highly rated MDBs that meet the following criteria¹¹ may receive a risk weight of 0%:

- very high quality long term issuer ratings, i.e. the majority of an MDBs external assessments must be AAA;

⁹ These categories are detailed in the “Instructions for completing the CB20” available at http://www.central-bank.org.tt/pdf/Other/FI-CB20_Instructions.pdf.

¹⁰ The preferential risk weight applied to sovereign and PSE exposures will be kept under constant review (and are subject to change) as these are applied in light of the Trinidad and Tobago sovereign rating of A by S&P.

¹¹ These criteria are established by the BCBS who will continue to evaluate eligibility on a case by case basis. A list of MDBs that may be 0% risk weighted is provided in Appendix 1.

- the MDB's shareholder structure is comprised of a significant proportion of sovereigns with long-term issuer credit assessments of AA- or better, or the majority of the MDB's fund-raising is in the form of paid-in equity/capital and there is little or no leverage;
- strong shareholder support demonstrated by the amount of paid-in capital contributed by the shareholders; the amount of further capital the MDBs have the right to call, if required, to repay their liabilities; and continued capital contributions and new pledges from sovereign shareholders;
- adequate level of capital and liquidity (a case-by-case approach is necessary in order to assess whether each MDBs capital and liquidity are adequate); and
- strict statutory lending requirements and conservative financial policies, which would include among other conditions a structured approval process, internal creditworthiness and risk concentration limits (per country, sector, and individual exposure and credit category), large exposures approval by the board or a committee of the board, fixed repayment schedules, effective monitoring of use of proceeds, status review process, and rigorous assessment of risk and provisioning to loan loss reserve.

Claims on banks

35. No claim on an unrated bank may receive a risk weight lower than a claim on its sovereign of incorporation. There are two options available under the Basel II framework for the treatment of these claims. Option 1 allows for the application of a risk weight that is one category less favourable than that of the sovereign of incorporation. Option 2 uses the credit rating of the bank itself to risk weight claims **subject to a floor of 20%**. The Central Bank has opted to apply Option 2. Consequently, the risk weight will be aligned with the credit rating of the bank.

Claims with a maturity of more than three months

36. Risk weights for banks will be based on the external credit rating for each bank. Unrated banks will be risk-weighted at 50%. However no claim on an unrated bank can receive a treatment that is lower than the sovereign of incorporation. Accordingly, claims on banks (with a maturity of more than three months) will be risk weighted as follows:

Credit Assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk Weight for Banks	20%	50%	50%	100%	150%	50%

Claims with a maturity of three months or less

37. A claim will be treated as a short term claim where it has an original maturity of three (3) months or less. Short term claims on banks will be assigned a risk weight as follows:

Credit Assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk Weight for Short Term Claims	20%	20%	20%	50%	150%	20%

38. Short term claims of domestic banks, denominated and funded in Trinidad and Tobago dollars, may be assigned a risk weight of 20%.

39. Short term claims which are expected to be restructured or rolled over (i.e. where the effective maturity is longer than 3 months) will not qualify for the preferential treatment outlined under this part for capital adequacy purposes.

Claims on Securities Firms

40. Claims on securities firms will be treated as claims on banks provided these firms are subject to supervisory and regulatory arrangements comparable to those under the Basel II framework (including, in particular, risk-based capital requirements). Otherwise, such claims should be risk weighted as claims on corporates.

Claims on Corporates

41. The following claims will be subject to the treatment prescribed in the table below:

- a. Claims on corporate entities (excluding venture capital and private equity investment corporations);
- b. Claims on insurance companies; and
- c. Claims on securities companies that do not qualify for the treatment as a bank.

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

42. No claim on an unrated corporate may be given a risk weight preferential to that assigned to its sovereign of incorporation.

43. The Central Bank reserves the right to increase the standard risk weight for unrated claims where it determines that a higher risk weight is warranted by the overall default experience.
44. Subject to approval by the Central Bank, a bank may risk weight all of its corporate claims at 100% without regard to external ratings. However, where this option is adopted, banks must apply it consistently, whether ratings are available or not.
45. As part of the supervisory review process (Pillar 2), the Central Bank may also consider whether the credit quality of corporate claims held by individual banks should warrant a standard risk weight higher than 100%.

Claims included in the Regulatory Retail Portfolios

46. Retail claims included in the regulatory retail portfolio should be risk-weighted at 75%. **Claims to be included in the regulatory retail portfolio must meet the following four (4) criteria:**

- a. **Orientation Criterion:-** Exposures are to an individual person or persons or to a small business enterprise (SBE).
- b. **Product Criterion:-** Exposure takes the form of any of the following:
 - i. revolving credits and lines of credit (including credit cards and overdrafts);
 - ii. personal term loans and leases (e.g. installment loans, auto loans and leases, student and educational loans, personal finance); or
 - iii. small business facilities and commitments.

Note: Securities (such as bonds and equities), whether listed or not, are specifically excluded from the regulatory retail portfolio. Mortgage loans are also excluded to the extent that they qualify for treatment as claims secured by residential property.

- c. **Granularity criterion:-**The regulatory retail portfolio must be sufficiently diversified to a degree that reduces the risks in the portfolio, warranting the 75% risk weight. One way of achieving this may be to set a numerical limit that no aggregate exposures¹² to one counterpart or related counterparts can exceed 0.2%.
- d. **Low value of individual exposures:-** The maximum aggregated retail exposure to one counterpart cannot exceed an absolute threshold of US\$1 Million (or TT\$ equivalent).

¹² Aggregate exposure means the gross amount (i.e. not taking any credit risk mitigation into account) of all forms of debt exposures (e.g. loans or commitments) that individually satisfy the three other criteria. In addition, "to one counterparty" means one or several entities that may be considered as a single beneficiary (e.g. in the case of a small business that is affiliated to another small business, the limit would apply to the bank's aggregated exposure on both businesses).

47. An entity will be deemed an SBE where it meets all of the following criteria:
 - i. The number of employees does not exceed 25;
 - ii. Its asset value is less than \$5M; and
 - iii. Its turnover in sales does not exceed \$10M.
48. Claims secured by residential property and past due retail loans are to be excluded from the overall regulatory retail portfolio for risk weighting purposes. These are addressed separately in this Paper.
49. In addition, the Central Bank will regularly review the 75% risk weight to ensure that it is not too low based on the default experience for these types of exposures.

Claims secured by residential property

50. Loans secured by mortgages on residential property (residential mortgage loans) will be risk weighted at 35% provided all the following conditions are met:
 - a. The property is or will be occupied by the borrower or is rented;
 - b. The loan is not past due for more than 90 days; and
 - c. The loan has a loan to value (LTV)¹³ ratio which does not exceed 80%.
51. Where a residential mortgage loan satisfies (a) and (b) above but the LTV ratio exceeds 80% but is less than 90%, a 75% risk weight will be applied. Where the LTV exceeds 90%, a 100% risk weight will apply. In addition, where a residential mortgage loan satisfies (a) and (b) above but banks hold no LTV information for their individual exposures, a 50% risk weight should be applied to the entire portfolio of exposures.
52. All other residential mortgage loans should be risk weighted at 100%.
53. The Central Bank will maintain under review the default experience with such claims to determine the continuing appropriateness of the concessionary weighting.

Claims secured by commercial real estate

54. Commercial Real Estate Loans will be assigned a risk weight of 100%.

¹³ Banks should monitor the value of the property on a frequent basis and at a minimum of once every three years for residential real estate. When information indicating that the value of the property may have declined materially relative to general market prices, banks must have their property valuation reviewed by an independent valuator.

Past due loans

55. *Unsecured Portions of Past Due Loans*

The unsecured portion of any loan (other than a qualifying residential mortgage loan) that is past due for more than ninety (90) days, net of specific provisions (including partial write-offs), should be risk-weighted as follows:

- a. 150% risk weight when specific provisions are less than 20% of the outstanding amount of the loan;
- b. 100% risk weight when specific provisions are 20% or more of the outstanding amount of the loan;
- c. 50% risk weight when specific provisions are no less than 50% of the outstanding amount of the loan (subject to the approval of the Central Bank).

56. *Secured Portions of Past Due Loans*

Banks should apply the same risk weight on the secured portion of past due loans secured by eligible collateral or guarantees, as if they were not past due, provided the credit risk mitigation criteria under the Credit Risk Mitigation framework continues to be satisfied.

57. Qualifying residential mortgage loans that are past due for more than 90 days will be risk weighted at 100%, net of specific provisions. If such loans are past due but specific provisions are no less than 20% of their outstanding amount, the risk weight of 50% will be applied.

Higher Risk Categories

58. A risk weight of 150% will apply to venture capital and private equity investments¹⁴.

59. Securitization tranches¹⁵ that are rated between BB+ and BB- will be risk weighted at 350%.

Other Assets

60. A 0% risk weight will apply to:

- a. Cash (in own vault or at the Central Bank);
- b. Gold Bullion, held in the institution's own vaults or on an allocated basis to the extent backed by bullion liabilities.

¹⁴ A venture capital or private equity investment is deemed to be one which, at the time the investment is made, is: a) in a new or developing company or venture; or b) in a management buy-out or buy-in; or c) made as a means of financing the investee company or venture and accompanied by a right of consultation, or rights to information, or board representation, or management rights; or d) acquired with a view to, or in order to, facilitate a transaction falling within (a) to (c).

¹⁵ This will be addressed in more detail under "The Securitization Framework".

- 61. A 20% risk weight will apply to cash items in the process of collection
- 62. A 100% risk weight will apply to:
 - a. Premises, plant, equipment and other fixed assets;
 - b. other investments (including non-consolidated investment participation in other companies);
 - c. Investments in equity of other entities and holdings of investment funds (including investments in commercial entities) (where capital deduction is not required¹⁶);
 - d. Unallocated prepayments and accrued interest;
 - e. All other assets not included elsewhere.

3.3 Risk Weights: Off-Balance Sheet Exposures (Excluding Over the Counter Derivatives and Securities Financing Transactions)

63. The categories of off-balance sheet items include guarantees, commitments, and similar contracts whose full notional principal amount may not necessarily be reflected on the balance sheet. Banks should convert off-balance sheet items into credit exposures equivalents through the use of credit conversion factors (CCFs) as follows:

64. The following CCFs apply:

Off-Balance Sheet Exposure	Credit Conversion Factor (CCF)
i. Commitments that are unconditionally cancellable without prior notice or that effectively provide for automatic cancellation due to the deterioration in a borrower's credit worthiness	0%
i. Commitments with an original maturity up to one year. ii. Short-term self-liquidating trade letters of credit arising from the movement of goods (e.g. documentary credits collateralized by the underlying shipment) ¹⁷ .	20%
i. Commitments with an original maturity exceeding one year, including underwriting commitments and commercial credit lines. ii. Certain transaction-related contingent items (e.g. performance bonds, bid bonds, warranties and standby letters of credit related to particular transactions). iii. Note issuance facilities (NIFs) and revolving underwriting facilities (RUFs).	50%
i. Direct credit substitutes, e.g. general guarantees of indebtedness (including standby letters of credit serving as financial guarantees for loans and securities)	100%

¹⁶ Refer the Central Bank's Consolidated Prudential Reporting Guideline available at: <http://www.central-bank.org.tt/sites/default/files/Consolidated%20Prudential%20Reporting%20Guideline.pdf>.

¹⁷ A 20% CCF will be applied to both issuing and confirming banks

Off-Balance Sheet Exposure	Credit Conversion Factor (CCF)
<p>and acceptances (including endorsements with the character of acceptances).</p> <p>ii. Sale and repurchase agreements.</p> <p>iii. Asset sales with recourse where the credit risk remains with the bank¹⁸.</p> <p>iv. Forward asset purchases, forward deposits and partly-paid shares and securities¹⁹, which represent commitments with certain drawdown.</p> <p>v. Lending of bank's securities or the posting of securities as collateral by banks, including instances where these arise out of securities financing transactions (i.e. repurchase/ reverse repurchase and securities lending/securities borrowing transactions)²⁰.</p>	

65. Where there is an undertaking to provide a commitment on an off-balance sheet item, the lower of the two applicable CCFs is to be applied.
66. The credit equivalent amount of over the counter derivatives that expose a bank to counter party credit risk will be calculated in accordance with the guidance outlined under " Counter Party Credit Risk: Over the Counter Derivatives).

3.4 Credit Risk Mitigation (CRM)-Standardized Approach

67. Banks may use a number of techniques to mitigate the credit risks to which they are exposed. These techniques include:
- **Collateralization** - exposures may be collateralized by first priority claims, in whole or in part with cash or securities.
 - **Setting-off**- Banks may agree to net or set-off loans owed to them against deposits from the same counterparty.
 - **Guarantees and/or credit derivatives** - a loan exposure may be guaranteed by a third party; in addition banks may buy a credit derivative to offset various forms of credit risk.
68. The framework described under this part sets out the treatment of CRM techniques that are applicable to banking book exposures under the standardized approach. The comprehensive approach for the treatment of collateral will also be applied to calculate the counterparty risk charges for over the counter (OTC) derivatives and securities financing transactions recorded in the trading book.

¹⁸ These items are to be weighted according to the type of asset and not according to the type of counterparty with whom the transaction has been entered into.

¹⁹ These items are to be weighted according to the type of asset and not according to the type of counterparty with whom the transaction has been entered into.

²⁰ The calculation of the risk weighted assets where the credit converted exposure is secured by eligible collateral is covered under the section "Collateralized Transactions" of the Credit Risk Mitigation Framework.

Minimum Conditions for the Recognition of Credit Risk Mitigation Techniques

Legal Certainty

69. To obtain capital relief for use of **any** CRM techniques, banks must meet the following minimum standards for legal documentation:
- a. All documentation used in collateralized transactions and for documenting on-balance sheet netting or setting-off and guarantees must be binding on all parties and legally enforceable in all relevant jurisdictions.
 - b. Banks must conduct sufficient legal review to verify this and have a well-founded legal basis to reach conclusion at point **a** above.
 - c. Banks must undertake further reviews as may be necessary to ensure continuing enforceability of documentation.

General Considerations

70. While the use of CRM techniques reduces or transfers credit risk, it simultaneously may increase other risks (residual risks) such as legal, operational, liquidity and market risks. Therefore, it is imperative that banks employ robust procedures and processes to control these risks, including strategy, consideration of the underlying credit, valuation, policies and procedures, systems, control of roll-off risks and management of concentration risk arising from the bank's use of CRM techniques and its interaction with the bank's overall credit risk profile. Where the Central Bank is not satisfied that these risks are adequately controlled, it may impose additional capital charges, disallow the use of CRM or take any other supervisory action pursuant to Pillar 2.
71. The effects of CRM will not be double-counted. Therefore, the Central Bank will not grant any additional supervisory recognition of CRM for regulatory capital purposes on claims for which an issue-specific rating is used that already reflects that CRM.

Collateralization

72. A collateralized transaction is one in which:
- a. banks have a credit exposure or potential credit exposure; and
 - b. that credit exposure or potential credit exposure is hedged in whole or in part by collateral posted by a counterparty²¹ or by a third party on behalf of the counterparty.

²¹ In this section "counterparty" is used to denote a party to whom a bank has an on- or off-balance sheet credit exposure or a potential credit exposure. That exposure may, for example, take the form of a loan of cash or securities (where the counterparty would traditionally be called the borrower), of securities posted as collateral, of a commitment or of exposure under an OTC derivatives contract.

73. Where banks take eligible financial collateral (e.g. cash or securities, more specifically defined under “Eligible Financial Collateral”), they are allowed to reduce their credit exposure to a counterparty when calculating their capital requirements to take account of the risk mitigating effect of the collateral.
74. A capital charge will be applied to banks on either side of the collateralized transaction: for example, both repos and reverse repos will be subject to capital charges. Likewise, both sides of a securities lending and borrowing transaction will be subject to explicit capital charges, as will the posting of securities in connection with a derivative exposure or other borrowing.
75. Where a bank, acting as an agent, arranges a repo-style transaction (i.e. repurchase/reverse repurchase and securities lending/borrowing transactions) between a customer and a third party and provides a guarantee to the customer that the third party will perform on its obligations, then the risk to the bank is the same as if the bank had entered into the transaction as a principal. In such circumstances, a bank will be required to calculate capital requirements as if it were itself the principal.
76. In calculating regulatory capital for collateralized transactions, banks must operate under the “Simple Approach” in the banking book, and only under the “Comprehensive approach” in the trading book. Partial collateralization will be recognized in both approaches. *Exception: Securities Financing Transactions including collateralized repostyle transactions in the banking book will be subject to the Comprehensive Approach.*

Pre-conditions for the use of collateral under either approach

77. Prior to banks receiving any capital relief in respect of any form of collateral, the standards below must be met under the Simple or Comprehensive Approach:
 - a. In addition to the general requirements for legal certainty (set out above), the legal mechanism by which collateral is pledged or transferred must ensure that banks have the right to liquidate or take legal possession of the collateral, in a timely manner, in the event of the default, insolvency or bankruptcy (or one or more otherwise-defined credit events set forth in the transaction documentation) of the counterparty (and where applicable, of the custodian holding the collateral).
 - b. Banks must take all steps necessary to fulfill those requirements under the law applicable to their interest in the collateral for obtaining and maintaining an enforceable security interest, e.g. by registering it with a registrar, or for exercising a right to net or set off in relation to title transfer collateral.

- c. Where the credit quality of the counterparty and the value of the collateral have a material positive correlation, the collateral instrument will **not** be eligible for credit risk mitigation purposes. For example, securities issued by the counterparty, or by any related group entity, would provide little protection and so would be ineligible.
- d. Banks must have clear and robust procedures for the timely liquidation of collateral to ensure that any legal conditions required for declaring the default of the counterparty and liquidating the collateral are observed, and that collateral can be liquidated promptly.
- e. Where a custodian holds the collateral, banks must take reasonable steps to ensure that the custodian segregates the collateral from its own assets.

The Simple Approach

- 78. For collateral to be eligible, it must be pledged for at least the life of the exposure, and must be marked to market and revalued with a minimum frequency of six months.
- 79. Collateral may be reduced in proportion to the amount of the reduction in the exposure amount where the collateral is cash. The release of collateral by the bank must be conditional upon the repayment of the exposure.

Risk Weighting of Collateral Instruments

- 80. Portions of claims collateralized by the market value of eligible collateral may receive the risk-weight applicable to the collateral instrument. The risk-weight on the collateralized portion will be subject to a floor of 20%. The remainder of a claim should be assigned the risk-weight appropriate to the counterparty. *Exception: A 0% risk weight will apply where the exposure and the collateral are denominated in the same currency where the collateral is cash (as defined under the section Eligible Financial Collateral below) on deposit with the institution which is incurring the counterparty exposure.*

The Comprehensive Approach

- 81. In the Comprehensive Approach, banks will need to calculate their adjusted exposure to a counterparty for capital adequacy purposes in order to take account of the effects of that collateral. Using haircuts, banks will be required to adjust both the amount of the exposure to the counterparty and the value of any collateral received in support of that counterparty to take account of possible future fluctuations in

the value of either, occasioned by market movements. This will produce volatility adjusted amounts for both exposure and collateral. Unless either side of the transaction is cash, the volatility adjusted amount for the exposure will be higher than the exposure and for the collateral it will be lower.

82. Additionally, where the exposure and collateral are held in different currencies an additional downwards adjustment must be made to the volatility adjusted collateral amount to take account of possible future fluctuations in exchange rates.
83. Where the volatility-adjusted exposure amount is greater than the volatility-adjusted collateral amount (including any further adjustment for foreign exchange risk), banks shall calculate their risk-weighted assets as the difference between the two multiplied by the risk weight of the counterparty.
84. The size of the individual haircuts will depend on the type of instrument, type of transaction and the frequency of marking-to-market and remargining. For example:
 - a. repo-style transactions subject to daily marking-to-market and to daily remargining will receive a haircut based on a 5-business day holding period; and
 - b. secured lending transactions with daily mark-to-market and no remargining clauses will receive a haircut based on a 20-business day holding period.
85. These haircut numbers will be scaled up using the square root of time formula (as shown in paragraph 96) depending on the frequency of remargining or marking-to-market.
86. Banks may only use the standard supervisory haircuts in calculating the exposure amount after risk mitigation.

Calculation of capital requirement

87. For a collateralized transaction, the exposure amount after risk mitigation is calculated as follows:

$$E^* = \max (0, [E \times (1 + H_e) - C \times (1 - H_c - H_{fx})])$$

where:

*E** = the exposure value after risk mitigation

E = current value of the exposure

H_e = haircut appropriate to the exposure

C = the current value of the collateral received

H_c = haircut appropriate to the collateral

H_{fx} = haircut appropriate for currency mismatch between the collateral and exposure.

88. The exposure amount after risk mitigation will be multiplied by the risk weight of the counterparty to obtain the risk-weighted asset amount for the collateralized transaction.
89. The treatment for transactions where there is a mismatch between the maturity of the counterparty exposure and the collateral is addressed in the section "Maturity Mismatches".
90. Where the collateral is a basket of assets, the haircut on the basket will be:

$$H = \sum_i a_i H_i$$

where:

a_i = the weight of the asset (as measured by units of currency) in the basket;

and

H_i = the haircut applicable to that asset.

Standard supervisory haircuts

91. These are the standard supervisory haircuts (assuming daily mark-to-market, daily remargining and a 10-business day holding period), expressed as percentages:

Issue rating for debt security	Residual Maturity	Sovereigns ^{22,23}	Other issuers ²⁴
AAA to AA-/A-1	≤ 1 year	0.5	1
	>1 year, ≤ 5 years	2	4
	>5 years	4	8
A+ to BBB-/ A-2/A-3/P-3 and unrated securities ²⁵	≤ 1 year	1	2
	>1 year, ≤ 5 years	3	6
	>5 years	6	12
BB+ to BB-	All	15	
Main index equities (including convertible bonds) and Gold		15	
Other equities (including convertible bonds) listed in a recognized exchange)		25	
UCITS ²⁶ /Mutual Funds		Highest haircut applicable to any security in	

²² Sovereigns include PSEs treated as sovereigns by the national supervisor and Multilateral Development Banks receiving a 0% risk weight.

²³ Includes eligible MDBs.

²⁴ Includes PSEs which are not treated as sovereigns by the national supervisor.

²⁵ These unrated securities would be defined as per point d under Eligible Financial Collateral, Simple Approach (page 33).

²⁶ Undertakings for Collective Investments in Transferable Securities (UCITS).

Issue rating for debt security	Residual Maturity	Sovereigns ^{22,23}	Other issuers ²⁴
		which the fund can invest	
Cash in the same currency ²⁷		0	

92. The standard supervisory haircut for currency risk where exposure and collateral are denominated in different currencies is 8% (also based on a 10-business day holding period and daily mark-to-market).
93. For transactions in which the bank lends non-eligible instruments (e.g. non-investment grade corporate debt securities), the haircut to be applied on the exposure should be the same as that for equity traded on a recognized exchange that is not part of a main index.

Adjustment for different holding periods and non-daily mark-to-market or remargining

94. For some transactions, depending on the nature and frequency of the revaluation and re-margining provisions, different holding periods are appropriate. The framework for collateral haircuts distinguishes between repo-style transactions (i.e. repo/ reverse repos and securities lending/ borrowing), "other capital-market-driven transactions" (i.e. OTC derivatives transactions and margin lending) and secured lending. In capital-market-driven transactions and repo-style transactions, the documentation contains re-margining clauses; in secured lending transactions, it generally does not.
95. The minimum holding period for various products is summarized in the following table:

Transaction type	Minimum holding period	Condition
Repo-style transaction	Five business days	Daily re-margining
Other capital market transactions	Ten business days	Daily re-margining
Secured lending	Twenty business days	Daily revaluation

96. 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:

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

where:

H = haircut

²⁷ Cash in the same currency refers to eligible cash collateral.

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

97. When a bank calculates the volatility on a T_N day holding period that is different from the specified minimum holding period T_M , the H_M will be calculated using the square root of time formula:

$$H_M = H_N \sqrt{T_M / T_N}$$

where:

H_M = haircut under the minimum holding period

H_N = haircut based on the holding period T_N

T_N = holding period used by the Bank for deriving H_N

T_M = minimum holding period for the type of transaction

98. Given that banks in Trinidad and Tobago will be required to use the standard supervisory haircuts, the 10-business day haircuts provided in paragraph 91 above provide the basis, and this haircut is scaled up or down depending on the type of transaction and the frequency of re-margining or re-valuation using the formula below:

$$H = H_{10} \sqrt{N_R + (T_M - 1) / 10} \quad \text{where:}$$

H = haircut

H_{10} = 10-business day standard supervisory haircut for instrument

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

T_M = minimum holding period for the type of transaction

Eligible Financial Collateral

Simple Approach

99. The following collateral instruments are eligible for recognition in the Simple Approach:

- a. **Cash** (as well as certificates of deposit or comparable instruments issued by the lending bank) on deposit with the bank that incurs the counterparty exposure.^{28, 29}

²⁸ Cash funded credit linked notes issued by the bank against exposures in the banking book which fulfill the criteria for credit derivatives are treated as cash collateralized transactions.

- b. **Gold**
- c. **Debt Securities** rated by a recognized credit rating agency where these are either:
 - i. At least BB- when issued by sovereigns or PSEs that are treated as sovereigns by the national supervisor; or
 - ii. At least BBB- when issued by other entities (including banks and securities firms); or
 - iii. At least A-3/ P-3 for short-term debt instruments.
- d. **Debt Securities not rated** by a recognized credit rating agency where these are:
 - i. Issued by a bank; and
 - ii. Listed on a recognized exchange; and
 - iii. Classified as senior debt; and
 - iv. All rated issues of the same seniority by the issuing bank must be rated at least BBB- or A-3/ P-3 by a recognized external credit assessment institution; and
 - v. The bank holding the securities as collateral has no information to suggest that the issue justifies a rating below BBB- or A-3/P-3 (as applicable); and
 - vi. The Central Bank is satisfied that there is adequate market liquidity for the security.
- e. **Equities** (including convertible bonds) that are included in a main index.
- f. **Undertakings for Collective Investments in Transferable Securities (UCITS) and Mutual Funds** where:
 - i. A price for the units is publicly quoted daily; and
 - ii. The UCITS/ mutual fund is limited to investing in the instruments listed above³⁰.

Comprehensive Approach

100. The following collateral instruments are eligible for recognition in the Comprehensive Approach:

- a. **All of the instruments listed under the simplified approach above;**
- b. **Equities (including convertible bonds)** which are not included in a main index but which are listed on a recognized exchange;
- c. **UCITS/ mutual funds** that include such equities referred to at b above.

²⁹ When cash on deposit, certificates of deposit or comparable instruments issued by the lending bank are held as collateral at a third party bank in a non-custodial arrangement, if they are openly pledged/ assigned to the lending bank and if the pledge/ assignment is unconditional and irrevocable, the exposure amount covered by the collateral (after any necessary haircuts for currency risk) can receive the risk weight of the third-party bank.

³⁰ However, the use or potential use by a UCITS/ mutual fund of derivative instruments solely to hedge investments will not prevent units in that UCITS/ mutual fund from being eligible financial collateral.

Netting

101. Where banks have legally enforceable netting or setting-off arrangements for loans and deposits they may calculate capital requirements on the basis of net credit exposures where the bank;
- a. has a well-founded legal basis for concluding that the netting or offsetting agreement is enforceable in each relevant jurisdiction regardless of whether the counterparty is insolvent or bankrupt;
 - b. is able at any time to determine those assets and liabilities with the same counterparty that are subject to the netting agreement;
 - c. monitors and controls its roll-off risks; and
 - d. monitors and controls the relevant exposures on a net basis.
102. Banks may use the net exposure of loans and deposits as the basis for its capital adequacy calculation in accordance with the formula in paragraph 87. Assets (loans) are treated as exposure and liabilities (deposits) as collateral. The haircuts will be zero except when a currency mismatch exists. A 10-business day holding period will apply when daily mark-to market is conducted and all the requirements below are completed:
- a. recognition and calculation of the appropriate standard supervisory haircuts (paragraphs 91 and 98); and
 - b. adjustment for any maturity mismatches (paragraphs 120-124).

Guarantees and Credit Derivatives

103. Where guarantees or credit derivatives are direct, explicit, irrevocable, legally enforceable and unconditional, and the Central Bank is satisfied that banks fulfill certain minimum operational conditions relating to risk management processes, banks would be permitted to take account of such credit protection in calculating capital requirements.
104. A range of guarantors and protection providers are recognized. A substitution approach will be applied whereby only guarantees issued by or protection provided by entities with a lower risk weight than the counterparty will lead to reduced capital charges since the protected portion of the counterparty exposure is assigned the risk weight of the guarantor or protection provider, whereas the uncovered portion retains the risk weight of the underlying counterparty.

Operational requirements common to both guarantees and credit derivatives

105. A guarantee (counter-guarantee) or credit derivative must:

- a. represent a direct claim on the protection provider and must be explicitly referenced to specific exposures or a pool of exposures, so that the extent of the cover is clearly defined and incontrovertible.
- b. be irrevocable; other than where there is non-payment by a protection purchaser of money due in respect of the credit protection contract. There must be no clause in the contract that would allow the protection provider unilaterally to cancel the credit cover or that would increase the effective cost of cover as a result of deteriorating credit quality in the hedged exposure³¹.
- c. must also be unconditional; there should be no clause in the protection contract outside the direct control of the bank that could prevent the protection provider from being obligated to pay out in a timely manner in the event that the original counterparty fails to make the payment(s) due.

Additional operational requirements for guarantees

106. In addition to the legal certainty requirements outlined, in order for a guarantee to be recognized, the following conditions must be satisfied:

- a. On the qualifying default/ non-payment of the counterparty, the bank may in a timely manner pursue the guarantor for any monies outstanding under the documentation governing the transaction. The guarantor may make one lump sum payment of all monies under such documentation to the bank, or the guarantor may assume the future payment obligations of the counterparty covered by the guarantee. The bank must have the right to receive any such payments from the guarantor without first having to take legal actions in order to pursue the counterparty for payment.
- b. The guarantee is an explicitly documented obligation assumed by the guarantor.
- c. Except as noted in the following sentence, the guarantee covers all types of payments the underlying obligor is expected to make under the documentation governing the transaction, for example notional amount, margin payments, etc. Where the guarantee covers payment of principal only, interests and other uncovered payments should be treated as an unsecured amount in accordance with paragraph 115 below.

Additional operational requirements for credit derivatives

107. In order for a credit derivative contract to be recognized, the following conditions must be satisfied:

- a. The credit events specified by the contracting parties must at a minimum cover:

³¹ Note that the irrevocability condition does not require that the credit protection and the exposure be maturity matched; rather that the maturity agreed ex ante may not be reduced ex post by the protection provider. The section in this paper on maturity mismatches sets out the treatment of call options in determining remaining maturity for credit protection.

- i. failure to pay the amounts due under terms of the underlying obligation that are in effect at the time of such failure (with a grace period that is closely in line with the grace period in the underlying obligation);
 - ii. bankruptcy, insolvency or inability of the obligor to pay its debts, or its failure or admission in writing of its inability generally to pay its debts as they become due, and analogous events; and
 - iii. restructuring of the underlying obligation involving forgiveness or postponement of principal, interest or fees that results in a credit loss event (i.e. charge-off, specific provision or other similar debit to the profit and loss account). When restructuring is not specified as a credit event, refer to paragraph 108.
- b. If the credit derivative covers obligations that do not include the underlying obligation, item (g) below governs whether the asset mismatch is permissible.
- c. The credit derivative shall not terminate prior to expiration of any grace period required for a default on the underlying obligation to occur as a result of a failure to pay, subject to the provisions of paragraph 122.
- d. Credit derivatives allowing for cash settlement are recognized for capital purposes insofar as a robust valuation process is in place in order to estimate loss reliably. There must be a clearly specified period for obtaining post-credit event valuations of the underlying obligation. If the reference obligation specified in the credit derivative for purposes of cash settlement is different from the underlying obligation, item (g) below governs whether the asset mismatch is permissible.
- e. If the protection purchaser's right/ability to transfer the underlying obligation to the protection provider is required for settlement, the terms of the underlying obligation must provide that any required consent to such transfer may not be unreasonably withheld.
- f. The identity of the parties responsible for determining whether a credit event has occurred must be clearly defined. This determination must not be the sole responsibility of the protection seller. The protection buyer must have the right/ability to inform the protection provider of the occurrence of a credit event.
- g. A mismatch between the underlying obligation and the reference obligation under the credit derivative (i.e. the obligation used for purposes of determining cash settlement value or the deliverable obligation) is permissible if (1) the reference obligation ranks pari passu with or is junior to the underlying obligation, and (2) the underlying obligation and reference obligation share the same obligor (i.e. the same legal entity) and legally enforceable cross-default or cross-acceleration clauses are in place.

- h. A mismatch between the underlying obligation and the obligation used for purposes of determining whether a credit event has occurred is permissible if (1) the latter obligation ranks pari passu with or is junior to the underlying obligation, and (2) the underlying obligation and reference obligation share the same obligor (i.e. the same legal entity) and legally enforceable cross-default or cross acceleration clauses are in place.

108. Partial recognition of the credit derivative will be allowed in instances where the restructuring of the underlying obligation is not covered by the credit derivative, but the other operational requirements in paragraph 107 are met. Partial recognition will be permitted:

- a. if the amount of the credit derivative is less than or equal to the amount of the underlying obligation, 60% of the amount of the hedge can be recognized as covered;
- b. if the amount of the credit derivative is larger than that of the underlying obligation, then the amount of eligible hedge is capped at 60% of the amount of the underlying obligation.

109. Only credit default swaps and total return swaps that provide credit protection equivalent to guarantees will be eligible for recognition.

110. However, the credit protection will not be recognized where banks buy credit protection through a total return swap and records the net payments received on the swap as net income, but does not record offsetting deterioration in the value of the asset that is protected (either through reductions in fair value or by an addition to reserves).

111. Other types of credit derivatives will not be eligible for recognition at this time³².

Range of Eligible Guarantors (Counter-Guarantors)/Protection Providers

112. Credit protection given by the following entities will be recognized:

- a. sovereign entities³³, PSEs, banks³⁴ and securities firms with a lower risk weight than the counterparty;
- b. other entities rated A- or better. This would include credit protection provided by parent, subsidiary and affiliate companies when they have a lower risk weight than the obligor.

³² Cash funded credit linked notes issued by the bank against exposures in the banking book which fulfill the criteria for credit derivatives will be treated as cash collateralized transactions.

³³ These include the Bank for International Settlements, the International Monetary Fund, the European Central Bank and the European Community, as well as those MDBs currently eligible for the 0% risk weight.

³⁴ This includes other MDBs not falling under footnote 32 above.

Risk Weights

113. The protected portion is assigned the risk weight of the protection provider. The uncovered portion of the exposure is assigned the risk weight of the underlying counterparty.
114. Materiality thresholds on payments below which no payment is made in the event of loss are equivalent to retained first loss positions and must be deducted in full from the capital of the bank purchasing the credit protection.

Proportional cover

115. Where the amount guaranteed, or against which credit protection is held, is less than the amount of the exposure, and the secured and unsecured portions are of equal seniority, i.e. the bank and the guarantor share losses on a pro-rata basis, capital relief will be afforded on a proportional basis. In this instance the protected portion of the exposure will receive the treatment applicable to eligible guarantees/credit derivatives, with the remainder treated as unsecured.

Tranched cover

116. Where banks transfer a portion of the risk of an exposure in one or more tranches to a protection seller or sellers and retains some level of risk of the loan and the risk transferred and the risk retained are of different seniority, banks may obtain credit protection for either the senior tranches (e.g. second loss portion) or the junior tranches (e.g. first loss portion). In this case the rules relating to credit risk securitization will apply (See Section Credit Risk-Securitization Framework).

Currency Mismatches

117. Where the credit protection is denominated in a currency different from that in which the exposure is denominated - i.e. there is a currency mismatch - the amount of the exposure deemed to be protected will be reduced by the application of a haircut H_{FX} , i.e.

$$G_A = G \times (1 - H_{FX}) \text{ where:}$$

G_A = value of credit protection adjusted for currency mismatch

G = nominal amount of the credit protection

H_{FX} = haircut appropriate for currency mismatch between the credit protection and underlying obligation.

118. The appropriate haircut based on a 10-business day holding period (assuming daily marking-to-market) will be applied. If banks use the supervisory haircuts it will be 8%. The haircuts must be scaled up using

the square root of time formula, depending on the frequency of revaluation of the credit protection as described in paragraph 96.

Sovereign Guarantees

119. As discussed under "Claims on Sovereigns" banks may apply a 0% risk weight to exposures to the government of Trinidad and Tobago (or the Central Bank of Trinidad and Tobago) where the exposure is denominated and funded in domestic currency. This treatment will also extend to claims or portions of claims guaranteed by the government of Trinidad and Tobago (or the Central Bank of Trinidad and Tobago) where the exposure is denominated and funded in domestic currency.

Maturity Mismatches

120. A maturity mismatch occurs when the residual maturity of the hedge is less than that of the underlying exposure. Banks may recognize the effects of CRM for an exposure where there is maturity mismatch only if:

- a. the hedge has an original maturity that is greater than or equal to one year³⁵;
- b. the hedge has a residual maturity of more than three months.

121. Maturity mismatches are not permitted under the Simple Approach for collateral.

Definition of Maturity

122. The maturity of the underlying exposure and the maturity of the hedge should both be defined conservatively. The effective maturity of the underlying exposure should be gauged as the longest possible remaining time before the counterparty is scheduled to fulfill its obligation, taking into account any applicable grace period. For the hedge, embedded options which may reduce the term of the hedge should be taken into account so that the shortest possible effective maturity is used.

123. Where a call is at the discretion of the protection seller, the maturity will always be at the first call date. If the call is at the discretion of the protection buying bank but the terms of the arrangement at origination of the hedge contain a positive incentive for the bank to call the transaction before contractual maturity, the remaining time to the first call date will be deemed to be the effective maturity. For example, where there is a step-up in cost in conjunction with a call feature or where the effective cost of cover increases over time even if credit quality remains the same or increases, the effective maturity will be the remaining time to the first call.

³⁵ Therefore the maturity of hedges for exposures of maturities less than one year must be matched to be recognized.

Risk Weights for Maturity Mismatches

124. Banks should calculate the value of the CRM adjusted for any maturity mismatch as follows:

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

where:

P_a = value of the credit protection adjusted for maturity mismatch

P = credit protection (e.g. collateral amount, guarantee amount) adjusted for any haircuts

t = min (*T*, residual maturity of the credit protection arrangement) expressed in years

T = min (5, residual maturity of the exposure) expressed in years

Other Items Related To the Treatment of CRM Techniques

Treatment of Pools of CRM Techniques

125. In the case where banks have multiple CRM techniques covering a single exposure (e.g. banks have both collateral and guarantee partially covering an exposure), banks will be required to subdivide the exposure into portions covered by each type of CRM technique (e.g. portion covered by collateral, portion covered by guarantee) and the risk-weighted assets of each portion must be calculated separately. When credit protection provided by a single protection provider has differing maturities, they must be subdivided into separate protection as well.

First-To-Default Credit Derivatives

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

127. With regard to banks providing credit protection through such an instrument, if the product has an external credit rating from an eligible credit rating agency, the risk weight applied to securitization tranches will be applied. If the product is not rated by an eligible external credit rating agency, the risk weights of the assets included in the basket will be aggregated up to a maximum of 1,250%

and multiplied by the nominal amount of the protection provided by the credit derivative to obtain the risk-weighted asset amount.

Second-To-Default Credit Derivatives

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

129. For banks providing credit protection through such a product, the capital treatment is the same as in paragraph 127 above with one exception. The exception is that, in aggregating the risk weights, the asset with the lowest risk weighted amount can be excluded from the calculation.

3.5 Counter Party Credit Risk: Over the Counter (OTC) Derivatives

130. OTC derivatives include forwards, swaps, options and other similar derivatives. Such transactions do not expose a bank to credit risk for the face value of the contract. However, such transactions pose significant counterparty credit risk.

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

132. Banks would be required to calculate a counterparty credit risk charge for OTC derivatives in both the banking and the trading book.

133. To determine the credit equivalent amount of an OTC derivative (in the banking or trading book), banks would be required to apply the "Current Exposure Method".

Current Exposure Method

134. Banks must calculate the current replacement cost by marking contracts to market, thus capturing the current exposure without any need for estimation, and then adding a factor (the "add-on") to reflect the potential future exposure over the remaining life of the contract.
135. Under this method, the credit equivalent amount of a OTC derivative is the sum of:
- a. The total replacement cost (obtained by "marking to market") of all its contracts with positive value; and
 - b. An amount for potential future credit exposure calculated on the basis of the total notional principal amount of its book, split by residual maturity as follows:

Add-on Factors for OTC Derivatives under the Current Exposure Approach

	Residual Maturity of Contracts		
	1 year or less	Over 1 year to 5 years	Over 5 years
Interest Rates	0%	0.5%	1.5%
Foreign Exchange Rates and Gold	1%	5%	7.5%
Equities	6%	8%	10%
Precious Metals Except Gold	7%	7%	8%
Other Commodities	10%	12%	15%

136. For contracts with multiple exchanges of principal, the factors are to be multiplied by the number of remaining payments in the contract.
137. For contracts that are structured to settle outstanding exposure following specified payment dates and where the terms are reset such that the market value of the contract is zero on these specified dates, the residual maturity would be set equal to the time until the next reset date. In the case of interest rate contracts with remaining maturities of more than one year that meet the above criteria, the add-on factor is subject to a floor of 0.5%.
138. Forwards, swaps, purchased options and similar derivative contracts not covered by any of the columns of this matrix are to be treated as "other commodities".

139. No potential future credit exposure would be calculated for single currency floating/floating interest rate swaps; the credit exposure on these contracts would be evaluated solely on the basis of their mark-to-market value.

Calculation of the Counterparty Credit Risk Charge

140. The counterparty credit risk charge for an individual contract will be calculated as follows:

$$\text{Counterparty charge} = [(RC + \text{add-on}) - CA] \times r \times \text{CAR} \text{ where:}$$

RC = the replacement cost;

add-on = the amount for potential future credit exposure;

CA = the volatility adjusted collateral amount under the comprehensive approach prescribed or zero if no eligible collateral is applied to the transaction; and

r = the risk weight of the counterparty.

Bilateral Netting

141. Bilateral Netting refers to the consolidation of agreements between a bank and counterparty. This results in a single legally enforceable arrangement between a bank and a counterparty covering all included individual contracts. In the event of the default or insolvency of one of the parties, the obligation would be the net sum of all positive and negative fair values of contracts included in the bilateral netting arrangement.

142. When effective bilateral netting contracts are in place, a bank may determine the credit exposure by using net (rather than gross) claims with the same counterparty arising out of an OTC transaction.

143. In applying the formula at 140 above to bilateral netting arrangements, the RC will be the net replacement cost and the add-on will be A_{Net} calculated as follows:

$$A_{\text{Net}} = 0.4 \times A_{\text{Gross}} + 0.6 \times \text{NGR} \times A_{\text{Gross}} \text{ where}$$

A_{Net} = the add-on for netted transactions;

A_{Gross} = the sum of individual add-on amounts (calculated by multiplying the notional principal amount by the appropriate add-on factors set out in paragraph 153 above) of all transactions subject to legally enforceable netting agreements with one counterparty.

NGR = the net replacement cost / the gross replacement cost for transactions subject to legally enforceable netting arrangements.

144. For capital adequacy purposes:

- a. Banks may net transactions subject to novation under which any obligation between a bank and its counterparty to deliver a given currency on a given value date is automatically amalgamated with all other obligations for the same currency and value date, legally substituting one single amount for the previous gross obligations.
- b. Banks may also net transactions subject to any legally valid form of bilateral netting not covered in (a), including other forms of novation.
- c. In both cases (a) and (b), banks will need to satisfy the Central Bank that they have:
 - i. A netting contract or agreement with the counterparty which creates a single legal obligation, covering all included transactions, such that the bank would have either a claim to receive or obligation to pay only the net sum of the positive and negative mark-to-market values of included individual transactions in the event a counterparty fails to perform due to any of the following: default, bankruptcy, liquidation or similar circumstances;
 - ii. Written and reasoned legal opinions that, in the event of a legal challenge, the relevant courts and administrative authorities would find the bank's exposure to be such a net amount under exposure to be such a net amount under:
 - the law of the jurisdiction in which the counterparty is chartered and, if the foreign branch of a counterparty is involved, then also under the law of the jurisdiction in which the branch is located;
 - the law that governs the individual transactions; and
 - the law that governs any contract or agreement necessary to effect the netting.
 - iii. The Central Bank, after consultation when necessary with other relevant supervisors, must be satisfied that the netting is enforceable under the laws of each of the relevant jurisdictions. Where any of these supervisors is dissatisfied about enforceability under its laws, the netting contract or agreement will not meet this condition and neither counterparty could obtain supervisory benefit.
 - iv. Procedures in place to ensure that the legal characteristics of netting arrangements are kept under review in the light of possible changes in relevant law.

- d. Contracts containing walkaway clauses³⁶ will not be eligible for netting for the purpose of calculating regulatory capital requirements.

Credit Derivatives

145. The counterparty credit risk charge for single name credit derivative transactions in the trading book will be calculated using the following potential future exposure add-on factors:

	Protection Buyer	Protection Seller
Total Return Swap		
"Qualifying" reference obligation	5%	5%
"Non-qualifying" reference obligation	10%	10%
Credit Default Swap		
"Qualifying" reference obligation	5%	5%
"Non-qualifying" reference obligation	10%	10%

146. The "qualifying" category includes rated investment grade securities issued by (or fully guaranteed by):
- a. Public sector entities
 - b. Multilateral development banks,
 - c. Securities firms that are subject to supervisory and regulatory arrangements comparable to the risk based capital framework for banks;
 - d. Other securities, that are:
 - i. rated investment grade by at least two internationally recognized credit rating agencies recognized by the Central Bank; or
 - ii. rated investment grade by at least two credit rating agencies one of which must be recognized by Central Bank;
 - iii. subject to the approval of the Central Bank, unrated but deemed to be of comparable investment quality by Banks, provided that the issuer is rated investment grade by at least two internationally recognized credit rating agencies approved by the Central Bank;

147. There will be no difference depending on residual maturity.

³⁶ A walkaway clause is a provision which permits a non-defaulting counterparty to make only limited payments, or no payment at all, to the estate of a defaulter, even if the defaulter is a net creditor.

148. The protection seller of a credit default swap will only be subject to the add-on factor where it is subject to closeout upon the insolvency of the protection buyer while the underlying is still solvent. Add-on should then be capped to the amount of the unpaid premiums.
149. Where the credit derivative is a first to default transaction, the add-on will be determined by the lowest credit quality underlying in the basket, i.e. if there are any non-qualifying items in the basket, the non-qualifying reference obligation add-on should be used.
150. For second and subsequent to default transactions, underlying assets should continue to be allocated according to the credit quality, i.e. the second lowest credit quality will determine the add-on for a second to default transaction etc.

3.6 Securities Financing Transactions

151. Securities Financing Transactions (SFTs) are transactions such as repurchase agreements, reverse repurchase agreements, security lending and borrowing, and margin lending transactions, where the value of the transactions depends on market valuations and the transactions are often subject to margin agreements.
152. For SFTs that are not subject to master netting agreements, banks are to use the comprehensive approach to recognize collateral in both the banking and trading book.

Treatment of Securities Financing Transactions covered under master netting agreements

153. The effects of bilateral netting agreements covering securities financing transactions (including repurchase/reverse repurchase transactions) will be recognized on a counterparty-by-counterparty basis if the agreements are legally enforceable in each relevant jurisdiction upon the occurrence of an event of default and regardless of whether the counterparty is insolvent or bankrupt.
154. In addition, netting agreements must:
- a. Provide the non-defaulting party the right to terminate and close-out in a timely manner all transactions under the agreement upon an event of default, including in the event of insolvency or bankruptcy of the counterparty;
 - b. Provide for the netting of gains and losses on transactions (including the value of any collateral) terminated and closed out under it so that a single net amount is owed by one party to the other;
 - c. Allow for the prompt liquidation or setoff of collateral upon the event of default; and

- d. In addition to the rights arising from the provisions required in (a) to (c) above, be legally enforceable in each relevant jurisdiction upon the occurrence of an event of default and regardless of the counterparty's insolvency or bankruptcy.

155. Netting across positions in the banking and trading book is only recognized when the netted transactions fulfill the following conditions:

- a. All transactions are marked-to-market daily³⁷, and
- b. The collateral instruments used in the transactions are recognized as eligible financial collateral in the banking book.

156. The calculation of the capital requirement in paragraph 88 will be adapted to recognize the adjustments for the netting agreements. The new calculation taking into account the impact of master netting agreements would be as follows³⁸:

$$E^* = \max (0, [(\Sigma (E) - \Sigma(C)) + \Sigma (E_S \times H_S) + \Sigma (E_{fx} \times H_{fx})])$$

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

157. The intention is to obtain a net exposure amount after netting of the exposures and collateral and to have an add-on amount reflecting possible price changes for the securities involved in the transactions and for foreign exchange risk, if any. The net long or short position of each security included in the netting agreement is multiplied by the appropriate haircut. All other rules regarding the calculation of haircuts set out in paragraphs 88-99 above, equivalently apply for banks using bilateral netting agreements for securities lending transactions.

³⁷ The holding period for the haircuts will depend, as in other repo-style transactions, on the frequency of margining.

³⁸ The starting point for this formula is the formula in paragraph 88 above, which can also be presented as the following: $E^* = \max (0, [(E - C) + (E \times H_c) + (C \times H_c) + (E_{fx} \times H_{fx})])$.

3.7 Capital Treatment For Failed Trades And Non DvP³⁹ Transactions

158. Banks should continue to develop, implement and improve systems for tracking and monitoring the credit risk exposures arising from unsettled and failed transactions as appropriate for producing management information that facilitates action on a timely basis.
159. Transactions settled through a delivery-versus-payment system (DvP)⁴⁰, providing simultaneous exchanges of securities for cash, expose firms to a risk of loss on the difference between the transaction valued at the agreed settlement price and the transaction valued at current market price (i.e. positive current exposure). Transactions where cash is paid without receipt of the corresponding receivable (securities, foreign currencies, gold, or commodities) or, conversely, deliverables were delivered without receipt of the corresponding cash payment (non-DvP, or free-delivery) expose firms to a risk of loss on the full amount of cash paid or deliverables delivered. The current rules set out specific capital charges that address these two kinds of exposures.
160. The following capital treatment is applicable to all transactions on securities, foreign exchange instruments, and commodities that give rise to a risk of delayed settlement or delivery. This includes transactions through recognized clearing houses that are subject to daily mark-to-market and payment of daily variation margins and that involve a mismatched trade. Repurchase and reverse-repurchase agreements as well as securities lending and borrowing that have failed to settle are excluded from this capital treatment.
161. In cases of a system wide failure of a settlement or clearing system, the Central Bank may use its discretion to waive capital charges until the situation is rectified.
162. Failure of a counterparty to settle a trade in itself will not be deemed a default for purposes of credit risk under this Framework.

Capital Requirement

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

³⁹ Delivery versus payment (DvP) is a settlement system that stipulates that cash payment must be made prior to or simultaneously with the delivery of the security.

⁴⁰ DvP transactions refers includes payment versus payment (PvP) transactions

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

164. For non-DvP transactions (i.e. free deliveries), after the first contractual payment/delivery leg, the bank that has made the payment will treat its exposure as a loan if the second leg has not been received by the end of the business day. Banks will use the standardized risk weights, however, when exposures are not material, banks may choose to apply a uniform 100% risk-weight to these exposures, in order to avoid the burden of a full credit assessment.
165. If five business days after the second contractual payment/delivery date the second leg has not yet effectively taken place, the bank that has made the first payment leg will deduct from capital the full amount of the value transferred plus replacement cost, if any. This treatment will apply until the second payment/delivery leg is effectively made.

3.8 Credit Risk-Securitization Framework

166. Banks must apply the securitization framework for determining regulatory capital requirements on exposures arising from traditional and synthetic securitizations or similar structures that contain features common to both.
167. Since securitizations may be structured in many different ways, the capital treatment of a securitization exposure must be determined on the basis of its economic substance rather than its legal form.
168. The Central Bank will look to the economic substance of a transaction to determine whether it should be subject to the securitization framework for purposes of determining regulatory capital. Banks are encouraged to consult with the Central Bank when there is uncertainty about whether a given transaction should be considered a securitization. For example, transactions involving cash flows from real estate (e.g. rents) may be considered specialized lending exposures, if warranted.
169. Banks' exposures to a securitization ("securitization exposures") can include but are not restricted to the following: asset-backed securities including certificates of participation, mortgage-backed securities, credit enhancements, liquidity facilities, interest rate or currency swaps, credit derivatives and tranching cover (i.e. where credit protection is obtained for tranches of exposure of different seniority (as

discussed at paragraph 117)). Reserve accounts, such as cash collateral accounts, recorded as an asset by the originating institution must also be treated as securitization exposures.

170. Underlying instruments in the pool being securitized may include but are not restricted to the following: loans, commitments, asset-backed and mortgage-backed securities, corporate bonds, equity securities, and private equity investments. The underlying pool may include one or more exposures.

Definitions and General Terminology

171. **Originating bank** - For risk-based capital purposes, a bank is considered to be an originator with regard to a certain securitization if it meets either of the following conditions:-

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

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

173. **Clean-up call**- A clean-up call is an option that permits the securitization exposures (e.g. asset-backed securities) to be called before all of the underlying exposures or securitization exposures have been repaid. In the case of traditional securitizations, this is generally accomplished by repurchasing the remaining securitization exposures once the pool balance or outstanding securities have fallen below some specified level. In the case of a synthetic transaction, the clean-up call may take the form of a clause that extinguishes the credit protection.

174. **Credit enhancement**- A credit enhancement is a contractual arrangement in which the bank retains or assumes a securitization exposure and, in substance, provides some degree of added protection to other parties to the transaction.

175. **Credit-enhancing interest-only strip**-A credit-enhancing interest-only strip (I/O) is an on-balance sheet asset that:-

- a. represents a valuation of cash flows related to future margin income, and

b. is subordinated.

176. **Early amortization**-Early amortization provisions are mechanisms that, once triggered, allow investors to be paid out prior to the originally stated maturity of the securities issued. For risk-based capital purposes, an early amortization provision will be considered either controlled or non-controlled. A controlled early amortization provision must meet all of the following conditions:-

- a. The bank must have an appropriate capital/liquidity plan in place to ensure that it has sufficient capital and liquidity available in the event of an early amortization.
- b. Throughout the duration of the transaction, including the amortization period, there is the same pro rata sharing of interest, principal, expenses, losses and recoveries based on the bank's and investors' relative shares of the receivables outstanding at the beginning of each month.
- c. The bank must set a period for amortization that would be sufficient for at least 90% of the total debt outstanding at the beginning of the early amortization period to have been repaid or recognized as in default; and
- d. The pace of repayment should not be any more rapid than would be allowed by straight-line amortization over the period set out in criterion (c).

An early amortization provision that does not satisfy the conditions for a controlled early amortization provision will be treated as a non-controlled early amortization provision.

177. **Excess spread**-Excess spread is generally defined as gross finance charge collections and other income received by the trust or special purpose entity minus certificate interest, servicing fees, charge-offs, and other senior trust or SPV expenses.

178. **Implicit support** -Implicit support arises when a bank provides support to a securitization in excess of its predetermined contractual obligation.

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

Traditional Securitizations

180. A traditional securitization is a structure where the cash flow from an underlying pool of exposures is used to service at least two different stratified risk positions or tranches reflecting different degrees of

credit risk. Payments to the investors depend upon the performance of the specified underlying exposures, as opposed to being derived from an obligation of the entity originating those exposures. The stratified/ tranching structures that characterize securitizations differ from ordinary senior/subordinated debt instruments in that junior securitization tranches can absorb losses without interrupting contractual payments to more senior tranches, whereas subordination in a senior/subordinated debt structure is a matter of priority of rights to the proceeds of liquidation.

Operational requirements for traditional securitizations

181. An originating institution may exclude securitized exposures from the calculation of risk-weighted assets only if all of the following conditions have been met.

- a. Significant credit risk associated with the securitized exposures has been transferred to third parties.
- b. The transferor does not maintain effective or indirect control over the transferred exposures. The assets are legally isolated from the transferor in such a way (e.g., through the sale of assets or through sub-participation) that the exposures are put beyond the reach of the transferor and its creditors, even in bankruptcy or receivership. These conditions must be supported by an opinion provided by a qualified legal counsel.

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

- c. The securities issued are not obligations of the transferor. Thus, investors who purchase the securities only have claim to the underlying pool of exposures.
- d. 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 them without restriction.
- e. Clean-up calls must satisfy the conditions set out in paragraph 188 below.
- f. The securitization does not contain clauses that (i) require the originating institution to alter systematically the underlying exposures such that the pool's weighted average credit quality is

improved unless this is achieved by selling assets to independent and unaffiliated third parties at market prices; (ii) allow for increases in a retained first loss position or credit enhancement provided by the originating institution after the transaction's inception; or (iii) increase the yield payable to parties other than the originating institution, such as investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the underlying pool.

182. Banks meeting these conditions must still hold regulatory capital against any securitization exposures they retain.

Synthetic Securitizations

183. A synthetic securitization is a structure with at least two different stratified risk positions or tranches that reflect different degrees of credit risk where credit risk of an underlying pool of exposures is transferred, in whole or in part, through the use of funded (e.g. credit-linked notes) or unfunded (e.g., credit default swaps) credit derivatives or guarantees that serve to hedge the credit risk of the portfolio. Accordingly, the investors' potential risk is dependent upon the performance of the underlying pool.

Operational requirements for synthetic securitizations

184. For synthetic securitizations, the use of CRM techniques (i.e. collateral, guarantees and credit derivatives) for hedging the underlying exposure will only be recognized for risk-based capital purposes if the conditions outlined below are satisfied:

- a. Credit risk mitigants must comply with the requirements as set out in the section "*Credit Risk Mitigation*".
- b. Eligible collateral is limited to that specified in the section "*Credit Risk Mitigation*". Eligible collateral pledged by SPVs may be recognized.
- c. Eligible guarantors are also defined in the section "*Credit Risk Mitigation*". Banks may not recognize SPVs as eligible guarantors under the securitization framework.
- d. Banks must transfer significant credit risk associated with the underlying exposure to third parties.
- e. The instruments used to transfer credit risk may not contain terms or conditions that limit the amount of credit risk transferred, such as those provided below:
 - Clauses that materially limit the credit protection or credit risk transference (e.g. significant materiality thresholds below which credit protection is deemed not to be triggered even if a credit event occurs or those that allow for the termination of the protection due to deterioration in the credit quality of the underlying exposures);

- Clauses that require the originating bank to alter the underlying exposures to improve the pool's weighted average credit quality;
 - Clauses that increase the banks' cost of credit protection in response to deterioration in the pool's quality;
 - Clauses that 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 reference pool; and
 - Clauses that provide for increases in a retained first loss position or credit enhancement provided by the originating bank after the transaction's inception.
- f. An opinion must be obtained from a qualified legal counsel that confirms the enforceability of the contracts in all relevant jurisdictions.
- g. Clean-up calls must satisfy the conditions set out in paragraph 188 below.

185. For synthetic securitizations, the effect of applying CRM techniques for hedging the underlying exposure is treated with under the section "Credit Risk Mitigation". In cases where there is a maturity mismatch, the capital requirement will be determined in accordance guidance Maturity Mismatches under the section "Credit Risk Mitigation".

186. When the exposures in the underlying pool have different maturities, the longest maturity must be taken as the maturity of the pool. Maturity mismatches may arise in the context of synthetic securitizations when, for example, a bank uses credit derivatives to transfer part or all of the credit risk of a specific pool of assets to third parties. When the credit derivatives unwind, the transaction will terminate. This implies that the effective maturity of the tranches of the synthetic securitization may differ from that of the underlying exposures. Originating banks of synthetic securitizations must treat such maturity mismatches in the following manner:

- a. banks must deduct all retained positions that are unrated or rated below investment grade. Accordingly, when deduction is required, maturity mismatches are not taken into account.
- b. for all other securitization exposures, banks must apply the maturity mismatch treatment set out in Maturity Mismatch under the section Credit Risk Mitigation.

Treatment of Clean Up Calls

187. 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
- c. the clean-up call must only be exercisable when 10% or less of the original underlying portfolio, or securities issued remains, or, for synthetic securitizations, when 10% or less of the original reference portfolio value remains.

188. A capital requirement will be imposed upon the originating bank where a securitization transaction that includes a clean-up call does not meet all of the criteria stated in paragraph 188. For a traditional securitization, the underlying exposures must be treated as if they were not securitized. Additionally, banks must not recognize in regulatory capital any gain-on-sale, as defined in paragraph 200. For synthetic securitizations, the bank purchasing protection must hold capital against the entire amount of the securitized exposures as if they did not benefit from any credit protection. If a synthetic securitization incorporates a call (other than a cleanup call) that effectively terminates the transaction and the purchased credit protection on a specific date, the bank must treat the transaction in accordance with paragraph 187 and the section “Maturity Mismatches” under the Credit Risk Mitigation framework.

189. 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.

Calculation of the Capital Requirement against Securitization Exposures

Calculation of capital requirements

190. Banks are required to hold regulatory capital against all of their securitization exposures, including those arising from the provision of credit risk mitigants to a securitization transaction, investments in asset-backed securities, retention of a subordinated tranche, and extension of a liquidity facility or credit enhancement, as set forth in the following sections. Repurchased securitization exposures must be treated as retained securitization exposures.

Risk Weights

191. The risk-weighted asset amount of a securitization exposure is computed by multiplying the amount of the position by the appropriate risk weight determined in accordance with the following tables.

Long Term Category

Credit Assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ and below or unrated
Risk Weight	20%	50%	100%	350%	Deduction

Short Term Category

Credit Assessment	A-1/P-1	A-2/P-2	A-3/P-3	All other ratings or unrated
Risk Weight	20%	20%	50%	Deductions

192. For off-balance sheet exposures, banks must apply a CCF and then risk weight the resultant credit equivalent amount. If such an exposure is rated, a CCF of 100% must be applied. For positions with long-term ratings of B+ and below and short-term ratings other than A-1/P-1, A-2/P-2, A-3/P-3, deduction from capital as defined in paragraph 199 is required. Deduction is also required for unrated positions with the exception of the circumstances described in paragraphs 197-198 and 201-202.

193. The capital treatment of positions retained by originators, liquidity facilities, credit risk mitigants and securitizations of revolving exposures are identified separately (see section "Treatment of Clean-Up Calls").

Investors may recognize ratings on below-investment grade exposures

194. Only third-party investors, as opposed to banks that serve as originators, may recognize external credit assessments that are equivalent to BB+ to BB- for risk weighting purposes of securitization exposures.

Originators to deduct below-investment grade exposures

195. Originating banks must deduct all retained securitization exposures rated below investment grade (i.e. below BBB-).

Exceptions to general treatment of unrated securitization exposures

196. As noted in the risk weighting tables at 192 above, unrated securitization exposures must be deducted with the following exceptions:

- a. the most senior exposure in a securitization;
- b. exposures that are in a second loss position or better in ABCP programmes and meet the requirements outlined in paragraph 201; and
- c. eligible liquidity facilities.

197. *Treatment of unrated most senior securitization exposures*

- a. If the most senior exposure in a securitization of a traditional or synthetic securitization is unrated, a bank that holds or guarantees such an exposure may determine the risk weight by applying the “look-through” treatment, provided the composition of the underlying pool is known at all times. Banks are not required to consider interest rate or currency swaps when determining whether an exposure is the most senior in a securitization for the purpose of applying the “look-through” approach.
- b. In the look-through treatment, the unrated most senior position receives the average risk weight of the underlying exposures subject to supervisory review. Where the bank is unable to determine the risk weights assigned to the underlying credit risk exposures, the unrated position must be deducted.

Deduction

198. When a bank is required to deduct a securitization exposure from regulatory capital, the deduction must be taken 50% from Tier 1 and 50% from Tier 2 with the one exception noted in paragraph 200. Credit enhancing interest only strips (net of the amount that must be deducted from Tier 1 as in paragraph 200) are deducted 50% from Tier 1 and 50% from Tier 2. Deductions from capital may be calculated net of any specific provisions taken against the relevant securitization exposures.

199. Banks must deduct from Tier 1 any increase in equity capital resulting from a securitization transaction, such as that associated with expected future margin income (FMI) resulting in a gain-on-sale that is recognized in regulatory capital. Such an increase in capital is referred to as a “gain-on-sale” for the purposes of the securitization framework.

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

200. Deduction is not required for those unrated securitization exposures provided by sponsoring banks to ABCP programmes that satisfy the following requirements:

- a. The exposure is economically in a second loss position or better 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 holding the unrated securitization exposure does not retain or provide the first loss position.

201. Where these conditions are satisfied, the risk weight is the greater of (i) 100% or (ii) the highest risk weight assigned to any of the underlying individual exposures covered by the facility.

Implicit support

202. When a bank provides implicit support to a securitization, it must, at a minimum, hold capital against all of the exposures associated with the securitization transaction as if they had not been securitized. Additionally, banks would not be permitted to recognize in regulatory capital any gain-on-sale, as defined in paragraph 200. Furthermore, the bank is required to disclose publicly that (a) it has provided non-contractual support and (b) the capital impact of doing so.

Risk weights for eligible liquidity facilities

203. For eligible liquidity facilities as defined in paragraph 206 and where the conditions for use of external credit ratings in paragraph 234 are not met, the risk weight applied to the exposure's credit equivalent amount is equal to the highest risk weight assigned to any of the underlying individual exposures covered by the facility.

Credit conversion factors for off-balance sheet exposures

204. For risk-based capital purposes, banks must determine whether, according to the criteria outlined below, an off-balance sheet securitization exposure qualifies as an 'eligible liquidity facility' or an 'eligible servicer cash advance facility'. All other off-balance sheet securitization exposures will receive a 100% CCF.

Eligible liquidity facilities

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

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

- b. The facility must be subject to an asset quality test that precludes it from being drawn to cover credit risk exposures that are in default⁴¹. In addition, if the exposures that a liquidity facility is required to fund are externally rated securities, the facility can only be used to fund securities that are externally rated investment grade at the time of funding;
- c. The facility cannot be drawn after all applicable (e.g. transaction-specific and programme-wide) credit enhancements from which the liquidity would benefit have been exhausted; and
- d. Repayment of draws on the facility (i.e. assets acquired under a purchase agreement or loans made under a lending agreement) must not be subordinated to any interests of any note holder in the programme (e.g. ABCP programme) or subject to deferral or waiver.

206. Where these conditions are met, the bank may apply a 20% CCF to the amount of eligible liquidity facilities with an original maturity of one year or less, or a 50% CCF if the facility has an original maturity of more than one year. However, if an external rating of the facility itself is used for risk-weighting the facility, a 100% CCF must be applied.

Eligible liquidity facilities available only in the event of market disruption

207. Banks may apply a 0% CCF to eligible liquidity facilities that are only available in the event of a general market disruption (i.e. whereupon more than one SPE across different transactions are unable to roll over maturing commercial paper, and that inability is not the result of an impairment in the SPEs' credit quality or in the credit quality of the underlying exposures). To qualify for this treatment, the conditions provided in paragraph 205 must be satisfied. Additionally, the funds advanced by the bank to pay holders of the capital market instruments (e.g. commercial paper) when there is a general market disruption must be secured by the underlying assets, and must rank at least *pari passu* with the claims of holders of the capital market instruments.

Treatment of overlapping exposures

208. A bank may provide several types of facilities that can be drawn under various conditions. The same bank may be providing two or more of these facilities. Given the different triggers found in these facilities, it may be the case that a bank provides duplicative coverage to the underlying exposures. In other words, the facilities provided by a bank may overlap since a draw on one facility may preclude (in part) a draw under the other facility. In the case of overlapping facilities provided by the same bank, the bank does not need to hold additional capital for the overlap. Rather, it is only required to hold capital once for the position covered by the overlapping facilities (whether they are liquidity facilities or credit enhancements). Where the overlapping facilities are subject to different conversion factors, the bank

⁴¹ See Appendix 2 for a definition of default.

must attribute the overlapping part to the facility with the highest conversion factor. However, if overlapping facilities are provided by different banks, each bank must hold capital for the maximum amount of the facility.

Eligible servicer cash advance facilities

209. Subject to national discretion, if contractually provided for, servicers may advance cash to ensure an uninterrupted flow of payments to investors so long as the servicer is entitled to full reimbursement and this right is senior to other claims on cash flows from the underlying pool of exposures. At national discretion, such undrawn servicer cash advances or facilities that are unconditionally cancellable without prior notice may be eligible for a 0% CCF.

Treatment of credit risk mitigation for securitization exposures

210. The treatment below applies to a bank that has obtained a credit risk mitigant on a securitization exposure. Credit risk mitigants include guarantees, credit derivatives, collateral and on-balance sheet netting. Collateral in this context refers to that used to hedge the credit risk of a securitization exposure rather than the underlying exposures of the securitization transaction.

211. When a bank other than the originator provides credit protection to a securitization exposure, it must calculate a capital requirement on the covered exposure as if it were an investor in that securitization. If a bank provides protection to an unrated credit enhancement, it must treat the credit protection provided as if it were directly holding the unrated credit enhancement.

Collateral

212. Eligible collateral is limited to that recognized under the section "Credit Risk Mitigation". Collateral pledged by SPVs may be recognized.

Guarantees and Credit derivatives

213. Credit protection provided by the entities listed deemed eligible (i.e. eligible guarantors) under the "Credit Risk Mitigation" may be recognized. SPVs cannot be recognized as eligible guarantors.

214. Where guarantees or credit derivatives fulfill the minimum operational conditions as specified under the section "Credit Risk Mitigation". Banks can take account of such credit protection in calculating capital requirements for securitization exposures.

215. Capital requirements for the guaranteed/protected portion will be calculated according to methodology under the section "Credit Risk Mitigation".

Maturity Mismatches

216. For the purpose of regulatory capital against a maturity mismatch, the capital requirement will be determined in accordance with the prescription under the section "Credit Risk Mitigation". When the exposures being hedged have different maturities, the longest maturity must be used.

Capital requirement for early amortization provisions

217. An originating bank is required to hold capital against all or a portion of the investors' interest (i.e. against both the drawn and undrawn balances related to the securitized exposures) when:

- a. It sells exposures into a structure that contains an early amortization feature; and
- b. The exposures sold are of a revolving nature. These 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).

218. The capital requirement should reflect the type of mechanism through which an early amortization is triggered.

219. For securitization structures wherein the underlying pool comprises revolving and term exposures, a bank must apply the relevant early amortization treatment (outlined below in paragraphs 222 to 233) to that portion of the underlying pool containing revolving exposures.

220. Banks are not required to calculate a capital requirement for early amortizations in the following situations:

- a. Replenishment structures where the underlying exposures do not revolve and the early amortization ends the ability of the bank to add new exposures;
- b. Transactions of revolving assets containing early amortization features that mimic term structures (i.e. where the risk on the underlying facilities does not return to the originating bank);
- c. Structures where a bank securitizes one or more credit line(s) and where investors remain fully exposed to future draws by borrowers even after an early amortization event has occurred;
- d. The early amortization clause is solely triggered by events not related to the performance of the securitized assets or the selling bank, such as material changes in tax laws or regulations.

Maximum capital requirement

221. For a bank subject to the early amortization treatment, the total capital charge for all of its positions will be subject to a maximum capital requirement (i.e. a 'cap') equal to the greater of (i) that required for retained securitization exposures, or (ii) the capital requirement that would apply had the exposures not been securitized. In addition, banks must deduct the entire amount of any gain-on-sale and credit enhancing interest only strips arising from the securitization transaction in accordance with paragraphs 198 and 199.

Mechanics

222. The originator's capital charge for the investors' interest is determined as the product of (a) the investors' interest, (b) the appropriate CCF (as discussed below), and (c) the risk weight appropriate to the underlying exposure type, as if the exposures had not been securitized. As described below, the CCFs depend upon whether the early amortization repays investors through a controlled or non-controlled mechanism. They also differ according to whether the securitized exposures are uncommitted retail credit lines (e.g. credit card receivables) or other credit lines (e.g. revolving corporate facilities). A line is considered uncommitted if it is unconditionally cancellable without prior notice.

Determination of CCFs for controlled early amortization features

223. An early amortization feature is considered controlled when the definition at paragraph 177 is satisfied.

Uncommitted retail exposures

224. For uncommitted retail credit lines (e.g. credit card receivables) in securitizations containing controlled early amortization features, banks must compare the three-month average excess spread to the point at which the bank is required to trap excess spread as economically required by the structure (i.e. excess spread trapping point).

225. In cases where such a transaction does not require excess spread to be trapped, the trapping point is deemed to be 4.5 percentage points.

226. The bank must divide the excess spread level by the transaction's excess spread trapping point to determine the appropriate segments and apply the corresponding conversion factors, as outlined in the following table.

Controlled early amortization features

	Uncommitted	Committed
Retail credit lines	3-month average excess spread	90% CCF
	Credit Conversion Factor (CCF)	
	133.33% of trapping point or more	
	0% CCF	
	less than 133.33% to 100% of trapping point	
	1% CCF	
	less than 100% to 75% of trapping point	
	2% CCF	
less than 75% to 50% of trapping point		
10% CCF		
less than 50% to 25% of trapping point		
10% CCF		
less than 25%		
40% CCF		
Non -retail credit lines	90% CCF	90% CCF

227. Banks are required to apply the conversion factors set out above for controlled mechanisms to the investors' interest referred to in paragraph 222.

Other exposures

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

Determination of CCFs for non-controlled early amortization features

229. Early amortization features that do not satisfy the definition of a controlled early amortization will be considered non-controlled and treated as follows.

Uncommitted retail exposures

230. For uncommitted retail credit lines (e.g. credit card receivables) in securitizations containing non-controlled early amortization features, banks must make the comparison described in paragraphs 224 and 225.

231. The bank must divide the excess spread level by the transaction's excess spread trapping point to determine the appropriate segments and apply the corresponding conversion factors, as outlined in the following table.

Non-controlled early amortization features

	Uncommitted	Committed
Retail credit lines	<p>3-month average excess spread</p> <p>Credit Conversion Factor (CCF)</p> <p>133.33% or more of trapping point</p> <p>0% CCF</p> <p>less than 133.33% to 100% of trapping point</p> <p>5% CCF</p> <p>less than 100% to 75% of trapping point</p> <p>15% CCF</p> <p>less than 75% to 50% of trapping point</p> <p>50% CCF</p> <p>less than 50% of trapping point</p> <p>100% CCF</p>	100% CCF
Non-retail credit lines	100% CCF	100% CCF

Other exposures

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

Certificates of Participation

233. As discussed above, unrated securitization exposure is to be deducted from capital (subject to the exceptions outlined). In the case of unrated certificates of participation (also referred to as 'strips') a 20% risk weight will apply where the following criteria is satisfied:

- a) the underlying asset(s) are equities, bonds, debentures, stocks or other evidence of indebtedness of:
 - i. the Government of Trinidad and Tobago; or
 - ii. any public corporation that is fully guaranteed by the Government of Trinidad and Tobago and which said guarantee is explicit, unconditional,

legally enforceable and irrevocable over the life of the equity, bond, debenture, stock or other evidence of indebtedness in question;

- b) such equities, bonds, debentures, stocks or other evidence of indebtedness must be vested in a trustee on behalf of the participants under a deed of trust constituting participation;
- c) such equities, bonds, debentures, stocks or other evidence of indebtedness must be transferred from the seller to the trustee by way of an executed instrument of transfer and such trustee is constituted as the registered owner of such equities, bonds, debentures, stocks or other evidence of indebtedness;
- d) the trustee of the equities, bonds, debentures, stocks or other evidence of indebtedness is, without being compelled to take recourse to the seller, empowered by the deed of trust constituting the participation to take enforcement action against the issuer of such asset(s);
- e) participants under the deed of trust constituting the participation have a right of action against the trustee, where the trustee has acted negligently or committed a breach of trust; and
- f) the seller and trustee are financial institutions regulated by the Central Bank.

234. Certificates of participation that do not meet the criteria outlined above must be risk weighted in accordance with the credit securitization framework.

Operational requirements for use of external credit ratings for securitization exposures

235. The following operational criteria on the use of external credit ratings applies to the securitization framework outlined in this document:

- a. To be eligible for risk-weighting purposes, the credit rating must take into account and reflect the entire amount of credit risk exposure the bank has with regard to all payments owed to it. For example, if a bank is owed both principal and interest, the assessment must fully take into account and reflect the credit risk associated with timely repayment of both principal and interest.
- b. The credit rating must be from an eligible CRA recognized by the Central Bank. A credit rating must be publicly available. In other words, a rating must be published in an accessible form

and included in the CRA's transition matrix. Consequently, ratings that are made available only to the parties to a transaction do not satisfy this requirement.

- c. Eligible CRAs must have a demonstrated expertise in assessing securitizations, which may be evidenced by strong market acceptance.
- d. A bank must apply credit ratings from eligible CRAs consistently across a given type of securitization exposure. Furthermore, a bank cannot use the credit ratings issued by one CRA for one or more tranches and those of another CRA for other positions (whether retained or purchased) within the same securitization structure that may or may not be rated by the first CRA. Where two or more eligible CRAs can be used and these assess the credit risk of the same securitization exposure differently, the directions under 'Multiple Assessments' at paragraph 12 must be followed.
- e. Where Credit Risk Mitigation (CRM) is provided directly to an SPV by an eligible guarantor (as outlined under the section "Credit Risk Mitigation") and is reflected in the credit rating assigned to a securitization exposure(s), the risk weight associated with that credit rating should be used. In order to avoid any double counting, no additional capital recognition is permitted. If the CRM provider is not recognized as an eligible guarantor, the covered securitization exposures should be treated as unrated.
- f. Where a credit risk mitigant is not obtained by the special purpose entity (SPV) but rather applied to a specific securitization exposure within a given structure (e.g. Asset-backed security tranche), the bank must treat the exposure as if it is unrated and then use the CRM treatment outlined under the section "Credit Risk Mitigation" to recognize the hedge.

4. Operational Risk Framework

4.1 The Standardized Approach (TSA)

236. In the TSA, the activities of banks are divided into eight business lines: corporate finance, trading & sales, retail banking, commercial banking, payment & settlement, agency services, asset management, and retail brokerage defined in the table below.

Level 1	Level 2	Activities
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Level 1	Level 2	Activities
Corporate Finance	Corporate Finance	Mergers and acquisitions, underwriting, privatizations, securitization, research, debt (government, high yield), equity, syndications, IPO, secondary private placements
	Municipal/Government Finance	
	Merchant Banking	
	Advisory Services	
Trading & Sales	Sales	Fixed income, equity, foreign exchanges, commodities, credit, funding, own position securities, lending and repos, brokerage, debt, prime brokerage
	Market Making	
	Proprietary Positions	
	Treasury	
Retail Banking	Retail Banking	Retail lending and deposits, banking services, trust and estates
	Private Banking	Private lending and deposits, banking services, trust and Retail Banking estates, investment advice
	Card Services	Merchant/commercial/corporate cards, private labels and retail
Commercial Banking	Commercial Banking	Project finance, real estate, export finance, trade finance, factoring, leasing, lending, guarantees, bills of exchange
Payment and Settlement ⁴²	External Clients	Payments and collections, funds transfer, clearing and settlement
Agency Services	Custody	Escrow, depository receipts, securities lending (customers) corporate actions
	Corporate Agency	Issuer and paying agents
	Corporate Trust	
Asset Management	Discretionary Fund Management	Pooled, segregated, retail, institutional, closed, open, private equity
	Non-Discretionary Fund Management	Pooled, segregated, retail, institutional, closed, open
Retail Brokerage	Retail Brokerage	Execution and full service

⁴² Payment and settlement losses related to an institution's own activities would be incorporated in the loss experience of the affected business line.

237. It should be noted that in the TSA gross income is measured for each business line, not the whole institution. For example, in corporate finance, the indicator is the gross income generated in the corporate finance business line.
238. Therefore within each business line, gross income is a broad indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of these business lines. The capital charge for each business line is calculated by multiplying gross income by a factor (denoted beta) assigned to that business line. Beta serves as a proxy for the industry-wide relationship between the operational risk loss experience for a given business line and the aggregate level of gross income for that business line.
239. The total capital charge is calculated as the three-year average of the simple summation of the regulatory capital charges across each of the business lines in each year. In any given year, negative capital charges (resulting from negative gross income) in any business line may offset positive capital charges in other business lines without limit. However, where the aggregate capital charge across all business lines within a given year is negative, then the input to the numerator for that year will be zero.
240. The total capital charge may be expressed as:

$$K_{TSA} = \{\sum \text{years}_{1-3} \max [\sum (GI_{1-8} \times \beta_{1-8}), 0]\} / 3 \text{ where:}$$

K_{TSA} = the capital charge under the Standardized Approach

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

β_{1-8} = a fixed percentage relating the level of required capital to the level of the gross income for each business line as set out below.

Business Lines	Beta Factors
Corporate finance (β_1)	18%
Trading and sales (β_2)	18%
Retail banking (β_3)	12%
Commercial banking (β_4)	15%
Payment and settlement (β_5)	18%
Agency services (β_6)	15%
Asset management (β_7)	12%
Retail brokerage (β_8)	12%

Oversight and Governance Standards

241. An institution must satisfy the Central Bank that, at a minimum:
 - a. Its board of directors and senior management, as appropriate, are actively involved in the oversight of the operational risk management framework;
 - b. It has an operational risk management system that is conceptually sound and is implemented with integrity; and
 - c. It has sufficient resources in the use of the approach in the major business lines as well as the control and audit areas.

242. An institution must develop specific policies and have documented criteria for mapping gross income for current business lines and activities into the standardized framework. The criteria must be reviewed and adjusted for new or changing business activities as appropriate.

243. The institution must have an operational risk management system with clear responsibilities assigned to an operational risk management function. The operational risk management function is responsible for developing strategies to identify, assess, monitor and control/mitigate operational risk; for codifying firm-level policies and procedures concerning operational risk management and controls; for the design and implementation of the firm's operational risk assessment methodology; and for the design and implementation of a risk-reporting system for operational risk.

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

245. There must be regular reporting of operational risk exposures, including material operational losses, to business unit management, senior management, and to the board of directors. The institution must have procedures for taking appropriate action according to the information within the management reports.

246. The institution's operational risk management system must be well documented. The institution must have a routine in place for ensuring compliance with a documented set of internal policies, controls

and procedures concerning the operational risk management system, which must include policies for the treatment of non-compliance issues.

247. The institution's operational risk management processes and assessment system must be subject to validation and regular independent review. These reviews must include both the activities of the business units and of the operational risk management function.
248. The institution's operational risk assessment system (including the internal validation processes) must be subject to regular review by external auditors and/or supervisors.

Rules For The Business Line Mapping

249. All activities must be mapped into the eight level 1 business lines in a mutually exclusive and jointly exhaustive manner.
250. Any banking or non-banking activity which cannot be readily mapped into the business line framework, but which represents an ancillary function to an activity included in the framework, must be allocated to the business line it supports. If more than one business line is supported through the ancillary activity, an objective mapping criteria must be used.
251. When mapping gross income, if an activity cannot be mapped into a particular business line then the business line yielding the highest charge must be used. The same business line equally applies to any associated ancillary activity.
252. Banks may use internal pricing methods to allocate gross income between business lines provided that total gross income for the bank (as would be recorded under the Basic Indicator Approach) still equals the sum of gross income for the eight business lines.
 - a. The mapping of activities into business lines for operational risk capital purposes must be consistent with the definitions of business lines used for regulatory capital calculations in other risk categories, i.e. credit and market risk. Any deviations from this principle must be clearly motivated and documented.
 - b. The mapping process used must be clearly documented. In particular, written business line definitions must be clear and detailed enough to allow third parties to replicate the business line mapping. Documentation must, among other things, clearly motivate any exceptions or overrides and be kept on record.

- c. Processes must be in place to define the mapping of any new activities or products.
- d. Senior management is responsible for the mapping policy (which is subject to the approval by the board of directors).
- e. The mapping process to business lines must be subject to independent review.

Supplemental business line guidance

253. There are a variety of valid approaches that institutions can use to map their activities to the eight business lines, provided the approach used meets the business line mapping principles. The following is an example of one possible approach that could be used to map gross income:

- a. Gross income for retail banking consists of net interest income on loans and advances to retail customers and SMEs treated as retail, plus fees related to traditional retail activities, net income from swaps and derivatives held to hedge the retail banking book, and income on purchased retail receivables. To calculate net interest income for retail banking, an institution takes the interest earned on its loans and advances to retail customers less the weighted average cost of funding of the loans (from whatever source - retail or other deposits).
- b. Similarly, gross income for commercial banking consists of the net interest income on loans and advances to corporate (plus SMEs treated as corporate), inter-bank and sovereign customers and income on purchased corporate receivables, plus fees related to traditional commercial banking activities including commitments, guarantees, bills of exchange, net income (e.g. from coupons and dividends) on securities held in the banking book, and profits/losses on swaps and derivatives held to hedge the commercial banking book. Again, the calculation of net interest income is based on interest earned on loans and advances to corporate, inter-bank and sovereign customers less the weighted average cost of funding for these loans (from whatever source).
- c. For trading and sales, gross income consists of profits/losses on instruments held for trading purposes (i.e. in the mark-to-market book), net of funding cost, plus fees from wholesale broking.

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

5. Market Risk Framework

The current market risk framework for local banks is guided by the standardized methodology under the BCBS's *Amendment to the Basel I Accord to Incorporate Market Risk* (Market Risk Amendment)⁴³. This market risk amendment was implemented by the Central Bank in 2008 and no significant changes are to be implemented.

However, the risk factors for the calculation of capital charges for specific interest rate risk are aligned generally with the credit risk framework. Given the introduction of the SA for credit risk, the risk factors for specific interest rate risk will be changed to ensure consistency in the risk weighting of exposures under the credit and market risks framework.

Specifically the risk weights under the Basel II standardized approach for market risk included in the table below will replace the current risk factors for the specific interest rate risk capital charge:

Categories	Credit Rating	Specific Risk Capital Charge
Government	AAA to AA-	0.00%
	A+ to BBB-	0.25% (residual term to final maturity of 6 months or less) 1.00% (residual term to final maturity greater than 6 months up to and including 24 months) 1.60% (residual term to final maturity exceeding 24 months)
	BB to B- Below B- Unrated	8.00% 12.00% 8.00%
Qualifying		0.25% (residual term to final maturity 6 months or less) 1.00% (residual term to final maturity greater than 6 months up to and including 24 months) 1.60% (residual term to final maturity exceeding 24 months)
Other	BB to B- Below B- Unrated	8.00% 12.00% 8.00%

The category government" will include all forms of government paper including bonds, Treasury bills and other short-term instruments. In addition, similar to under the credit risk framework, when government paper is

⁴³ which was issued in 1996

denominated in the domestic currency and funded by the bank in the same currency, the bank may apply the lower risk charge applied by the national supervisor in the particular jurisdiction.

6. Additional Capital Requirements

6.1 Increase in the Minimum Capital Adequacy Ratio (CAR)

While the banking system in Trinidad and Tobago is relatively stable⁴⁴, the risk profile of banks has changed significantly over the past two decades⁴⁵. To support this heightened risk profile, it is proposed that the minimum capital adequacy ratio be increased from 8% to 10%. This proposal is also consistent with the approach in a number of developed and developing economies, as seen in the table below. Research of fifteen jurisdictions has shown capital adequacy ratios which range from 8% to 12%.

COUNTRIES	(Tier1+Tier2)/RWA
Trinidad and Tobago	8%
Cayman Islands	10%
Bahamas	8%
Jamaica	10%
Barbados	8%
Canada	10%
India	9%
Thailand	8.5%
Bangladesh	9%
Sri Lanka	10%
Brazil	11%
Singapore	12%
South Africa	9.5%
United States	8%
Australia	8%
United Kingdom	8%
Uganda	10%

Consequently the minimum CAR will be calculated as follows:

⁴⁴ In its assessment of Trinidad and Tobago in 2010, the IMF noted that banks in Trinidad and Tobago were well capitalized and resilient in light of the international financial crisis and the failure of CLICO and CIB in early 2009.

⁴⁵ The current capital adequacy ratio has been in place since the enactment of the Financial Institutions (Prudential Criteria) Regulations in 1994.

$$\text{Minimum Capital Adequacy Ratio} = \frac{\text{Eligible Regulatory Capital}}{\text{RWA (Credit + Operational + Market)}} = 10\%$$

6.2 Increase in Minimum Tier 1 Ratio

An increase in the minimum Tier 1 ratio would be required given the proposed increase in the minimum CAR. However, the increase is also one of the recommendations proposed under Basel III to improve the quality and quantity of capital held by banks.

While the Basel III framework recommends an increase to 6%, the Central Bank proposes an increase to 7% to provide a more robust measure for solvency. The minimum tier one ratio will be calculated as follows:

$$\text{Minimum Tier 1 Ratio} = \frac{\text{Tier 1 Capital}}{\text{RWA (credit + operational + market)}} = 7\%$$

6.3 Minimum Common Equity Tier One Ratio

The minimum common equity Tier 1 ratio would require banks to maintain a minimum ratio of common equity to risk weighted assets of 4.5%. This ratio is a recommendation under the Basel III framework and is proposed for local banks given the high loss absorbing characteristic of common equity. This measure would serve to improve the quality of capital

The minimum common equity (tier one) ratio will be calculated as follows:

$$\text{Common Equity Tier 1 Ratio} = \frac{\text{Common Equity (Tier 1) Capital}}{\text{RWA (Credit + Operational + Market)}} = 4.5\%$$

APPENDIX 1 – ZERO RISK WEIGHTED MULTILATERAL DEVELOPMENT BANKS (MDBS)

- World Bank Group comprising the International Bank for Reconstruction and Development (IBRD) and the International Finance Corporation (IFC)
- Asian Development Bank (ADB)
- African Development Bank (AfDB)
- European Bank for Reconstruction and Development (EBRD)
- Inter-American Development Bank (IADB)
- European Investment Bank (EIB)
- European Investment Fund (EIF)
- Nordic Investment Bank (NIB)
- Caribbean Development Bank (CDB)
- Islamic Development Bank (IDB)
- Council of Europe Development Bank (CEDB)

APPENDIX 2 – TREATMENT OF DEFAULT

Definition of Default

1. 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:
 - 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).
 - The obligor is past due more than 90 days on any material credit obligation to the banking group.⁴⁶ Overdrafts will be considered as being past due once the customer has breached an advised limit or been advised of a limit smaller than the current outstanding.

2. The elements to be taken as indications of unlikelihood to pay include:
 - The bank puts the credit obligation on non-accrued status.
 - The bank makes a charge-off or account-specific provision resulting from a significant perceived decline in credit quality subsequent to the bank taking on the exposure.
 - The bank sells the credit obligation at a material credit-related economic loss.
 - The bank consents to a distressed 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.
 - 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.

3. For retail exposures, the definition of default can be applied at the level of a particular facility, rather than at the level of the obligor. 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.

Re-ageing

1. A 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.

⁴⁶ In the case of retail and PSE obligations, for the 90 days figure, a supervisor may substitute a figure up to 180 days for different products, as it considers appropriate to local conditions. In one member country, local conditions make it appropriate to use a figure of up to 180 days also for lending by its banks to corporates; this applies for a transitional period of 5 years.

2. At a minimum, the re-ageing policy must include: (a) approval authorities and reporting requirements; (b) minimum age of a facility before it is eligible for re-ageing; (c) delinquency levels of facilities that are eligible for re-ageing; (d) maximum number of re-ageings per facility; and (e) a reassessment of the borrower's capacity to repay. These policies must be applied consistently over time.

Treatment of Overdrafts

1. Authorized overdrafts must be subject to a credit limit set by the bank and brought to the knowledge of the client. Any break of this limit must be monitored; if the account were not brought under the limit after 90 to 180 days (subject to the applicable past-due trigger), it would be considered as defaulted.
2. Once any credit is granted to an unauthorized customer and such credit is not repaid within 90 to 180 days, the exposure should be considered in default. Banks must have in place rigorous internal policies for assessing the creditworthiness of customers who are offered overdraft accounts.

APPENDIX 3 –GUIDELINE FOR THE USE OF CREDIT RATINGS BY BANKS

1. RECOGNITION METHODS

Recognition of a CRA can occur in three ways- direct, indirect and automatic recognition.

A. DIRECT RECOGNITION

Direct recognition will be applied where the Central Bank is required to conduct its own evaluation of the eligibility of a CRA for regulatory purposes. To be recognized a CRA must satisfy six (6) criteria:

- i. Objectivity
- ii. Independence
- iii. International Access/Transparency
- iv. Disclosure
- v. Resources
- vi. Credibility

Where the Central Bank recognizes a CRA, it shall also make a determination on the appropriate mapping of its risk ratings to prescribed risk weights. Applications for direct recognition should be supported by appropriate documentation. However, the Central Bank reserves the right to request additional information as necessary.

B. INDIRECT RECOGNITION

A CRA may request indirect recognition where recognition has been conferred by another local or foreign regulatory agency or body that applies comparable rules and regulations to those of the Central Bank. However, the CRA must provide evidence of such recognition to the Central Bank.

The granting of indirect recognition is subject to the Central Bank being duly satisfied that:

- i) The CRA continues to adhere to six (6) eligibility criteria; and
- ii) The regulatory agency or body that granted recognition is operating in accordance with internationally established standards and principles with respect to regulation of financial institutions.

Notwithstanding the availability of indirect recognition, the Central Bank may, at its sole discretion, choose direct recognition where it is not satisfied that the CRA is sufficiently well known or utilized.

C. AUTOMATIC RECOGNITION

The Central Bank may automatically recognize a CRA without carrying out its own recognition process⁴⁷, where a CRA is widely known and commonly used in a number of markets. This method will apply for a CRA that is used widely by local or foreign regulatory agencies or bodies in various jurisdictions, e.g. Standard and Poor's and Moody's.

2. APPLICATION AND RECOGNITION PROCESS

- A. An application for recognition should be submitted directly by a CRA who is desirous of offering its rating services to financial institutions for regulatory purposes. However, the CRA should demonstrate that there are financial institutions willing to use the ratings it assigns.
- B. Where a financial institution is desirous of using the ratings of a particular CRA which is not yet recognized for regulatory purposes it should direct the CRA to make its application to the Central Bank in accordance with this guideline.
- C. A CRA seeking to be recognized must make its request in writing to the Central Bank, indicating the type of recognition being sought and must submit relevant supporting documents consistent with the type of recognition being sought.
- D. The Central Bank shall grant recognition to a CRA in one or more market segment(s) provided that the CRA meets the recognition criteria for each market segment in which it intends to operate. The CRA shall provide adequate information in respect of the rating processes and methodologies for each market segment where processes and methodologies differ between them.
- E. The Central Bank shall convey its decision, in writing, to the CRA, giving details of the market segments for which its ratings will be eligible for regulatory purposes.
- F. Where a CRA is granted recognition by the Central Bank, notice of this shall be placed on its website.
- G. The Central Bank will also update its list of recognized CRAs. The list shall include a description of the market segments. The Rating Equivalency Table will also be updated to incorporate the newly recognized CRA.

⁴⁷ Under automatic recognition, the Central Bank will automatically recognize select "nationally recognized statistical rating organizations" regulated by the United States Securities and Exchange Commission.

Recognition at the subsidiary level

- H. A locally incorporated subsidiary of a CRA may be granted recognition at the level of the group provided the group demonstrates that the subsidiary for which it is seeking recognition strictly adheres to the procedures and methodologies set up at the group level. This would be for each market segment for which it is applying. Group-level recognition does not, however, extend to joint ventures or affiliates⁴⁸.
- I. A subsidiary must seek direct recognition where it uses processes and rating methodologies that are different from those of the group to which it belongs. Furthermore, the credit rating methodology must be established for a minimum of three years before recognition is sought.

3. ON-GOING REVIEW OF RECOGNIZED CRAs

The Central Bank shall conduct annual reviews, monitor market events or employ any other mechanism necessary to ensure that a CRA that it has recognized continues to meet the eligibility criteria and in particular that its methodologies and credit ratings remain appropriate over time and through changes in market conditions.

4. DERECOGNITION OF A CRA

- A. The Central Bank may derecognize a CRA where it:
 - a) fails to satisfy the recognition criteria on an on-going basis; and/or
 - b) has been derecognized by an equivalent supervisor (applicable to CRAs granted automatic or indirect recognition).
- B. The Central Bank shall, by notice in writing, inform a CRA (which was not granted indirect (recognition) of its intention to derecognize⁴⁹ it.
- C. A CRA shall be allowed seven (7) days, from the date of the notice of intention, to make representations to the Central Bank.
- D. After due consideration of the representations made, the Central Bank shall make a final decision with respect to the derecognition of the CRA and shall inform the CRA of its final decision in writing.

⁴⁸ As defined in the FIA Chap 79:09

⁴⁹ In this case the Central Bank will no longer recognize the ratings of the CRA for regulatory purposes.

- E. Where the Central Bank wishes to derecognize a CRA which was granted indirect recognition, the Central Bank shall inform the CRA in writing of its decision. No notice of intention shall be issued.
- F. Where the Central Bank has decided to derecognize a CRA (whether granted indirect or direct recognition) it shall advise all financial institutions in writing and place a notice on its website.
- G. Where the Central Bank wishes to derecognize a CRA which was granted automatic recognition, the Central Bank shall inform financial institutions in writing of its decision and place a notice on its website. No notice of intention shall be issued.
- H. Where financial institutions have been so informed, they shall cease to use the credit ratings of the CRA for regulatory purposes. Financial institutions shall be allowed a period of up to 6 months to make the necessary adjustments to their existing exposures and/or capital adequacy requirements.
- I. Where a CRA has been derecognized, such derecognition shall be irrevocable.

5. SUSPENSION OF A CRA

- A. Prior to or instead of derecognition, the Central Bank, based on the issue under consideration, may opt to suspend the recognition of the CRA that has been granted direct or indirect recognition.
- B. The Central Bank shall, by notice in writing, inform a CRA of its intention to suspend.
- C. Where the Central Bank has indicated its intention to suspend the CRA, it shall be allowed seven (7) days, from the date of the notice of intention, to make representation to the Central Bank.
- D. After due consideration of the representations made, the Central Bank shall make a final decision with respect to the suspension of the CRA and shall inform the CRA of its final decision in writing.
- E. Where the Central Bank has decided to suspend the CRA, it shall inform all financial institutions in writing and place a notice of the CRA's suspension on its website.
- F. The Central Bank shall specify the period of suspension and shall outline the terms, conditions and the requirements to be satisfied by the CRA during the period of suspension.

- G. Where the CRA fails to adhere to the terms and conditions of the suspension, or fails to satisfy the requirements stipulated, the Central Bank may extend the period of the suspension or derecognize the CRA.

- H. Where the recognition of a CRA has been suspended, a financial institution shall not use the credit ratings of the CRA in the determination of credit exposures or risk based capital for any new exposures booked during the period of the CRA's suspension and should consider its position should the CRA fail to meet the criteria to come out of suspension.

6. APPLICATION REQUIREMENTS

The following provides information on the minimum requirements for a CRA to be considered for recognition:

A. GENERAL INFORMATION

1. An applicant should provide the Central Bank with general information that will provide an overview of its business. This should include:
 - a. the market segments for which the applicant is seeking recognition;
 - b. the level of recognition the applicant is seeking (group or subsidiary level);
 - c. the type of recognition the applicant is seeking (direct or indirect);
 - d. the type of credit assessments provided;
 - e. a list of jurisdictions where the applicant has been granted recognition;
 - f. an overview of the legal structure of the applicant and the group to which it belongs, including ownership, major subsidiaries, ancillary or other services provided etc. The information on ownership should include a list of shareholders that hold 10% or more of the shares of the CRA.

2. Where available, the applicant should provide the Central Bank with a statement of compliance with the International Organization for Securities Commission (IOSCO) *Code of Conduct Fundamentals for CRAs or similar market accepted standards (signed by the CEO and at least one other senior officer)*.

3. A proposed mapping of the ratings of the CRA to those of other recognized CRAs in Trinidad and Tobago.

B. SPECIFIC INFORMATION

Where a CRA is applying for **direct recognition** the following **additional** information should also be provided:

I. OBJECTIVITY

To demonstrate its compliance with the *objectivity* criterion an applicant should provide:

- (a) A description of the credit assessment methodology (*including the ratings definition, definition of default and use of time horizons*) and processes and how the methodology is determined, implemented and changed. This description should include an overview of the processes in place to ensure the consistent application of the assessment methodologies across all credit ratings. In particular, the role of ratings committees and guidelines governing them and the extent of input from rated entities should be provided. Evidence should also be provided to show that the credit assessment methodology has been established for at least three (3) years.
- (b) A description of the core ratings process for each market segment. The description should include the inputs used to determine an entity's creditworthiness for each market segment for which the CRA is seeking recognition. These should include both quantitative inputs (e.g. key variables, data sources, assumptions and quantitative techniques used, extent of input from the rated entities) and qualitative inputs (e.g. the strategy, business plans of the rated entities)
- (c) A description of the back-testing methodology used to verify the accuracy, consistency and discriminatory power of the rating systems with details on results and conclusions generated by such analysis. Evidence that the back-testing has been up and running for at least one year is required.
- (d) A description of the processes in place to ensure that credit ratings are reviewed at least annually and every time an event impacts on the credit quality of a given obligor. The description should include an overview of the ratings reviews process, information such as main characteristics, scope, frequency, teams involved, main phases of the monitoring process, data updates, information from rated entities taken into accounts, automatic warning systems and mechanisms that allows systematic errors in credit ratings to feedback into potential changes in the credit assessment methodology. A list of credit ratings reviewed and the results and outcomes thereof should also be provided.

- (e) A description of the internal compliance mechanism to ensure the consistent application of the credit assessment methodology.

II. INDEPENDENCE

To demonstrate its compliance with the *independence* criterion an applicant should provide the following:

- (a) A description of the procedures used to ensure fair and objective credit ratings, including mechanisms to identify, prevent, manage and eliminate actual and potential conflicts of interest.
- (b) A summary of major shareholders (i.e. those with 20% or more shareholding in the CRA)
- (c) An organizational chart.
- (d) Detailed profile of key executives.
- (e) Summary of executive committees (composition and accountability).
- (f) Summary of arrangements in place to separate the rating and non-rating business operations of the CRA.
- (g) A description of the rating committee(s) and a list of directors and staff involved therein.
- (h) An overview of the internal audit function, including reporting lines and/or any other means whereby the CRA ensures that internal procedures are implemented effectively.
- (i) A description of the main features of the applicant's internal code of conduct and a statement of how compliance with the code is monitored.
- (j) An overview of the applicant's remuneration policy.
- (k) Details of the applicant's fee policy.
- (l) A description of the policies in place where shareholders, subsidiaries, or other entities belonging to the group are rated.

III. INTERNATIONAL ACCESS/ TRANSPARENCY AND DISCLOSURE

To demonstrate its compliance with the *international access/transparency and disclosure* criterion an applicant should provide the following:

- (a) A summary of its disclosure policy and procedures and evidence that the principles employed for determining credit ratings are available to all interested parties.
- (b) A summary of the ways used to make the credit assessment methodologies available and details of the terms of access to the credit ratings by the potential users.
- (c) A description of the transparency policy with regards to the types of credit ratings.

IV. RESOURCES

To demonstrate its compliance with the *resources* criterion an applicant should provide the following:

- (a) A description of the source and amount of earnings including audited financial statements (at a minimum for the last three years).
- (b) Evidence that the CRA has the financial resources to invest in technological infrastructure.
- (c) Evidence that the CRA has the necessary quantitative techniques and models to analyze large quantity of data.
- (d) Evidence that the CRA has sufficient staff with the requisite skill to perform the tasks required. This should include an indication of the total number of employees together with details of their qualification and experience.
- (e) An overview of the process in place to ensure that members of the rating teams and rating committees have the relevant skills, including quantitative expertise, and experience in credit assessment and on-going training programmes for improving these requisite skills.
- (f) A description of the recruitment and training policy.

V. CREDIBILITY

To demonstrate its compliance with the *credibility* criterion an applicant should provide the following:

- (a) Evidence to demonstrate market reliance on the credit ratings, such as market share, number of issuers, how long the CRA has been active in the market, the revenues generated by the rating activity or any other evidence.

- (b) A description of the internal procedures to deal with the misuse of confidential information.

C. SPECIFIC INFORMATION (INDIRECT RECOGNITION)

Where a CRA is applying of **indirect recognition** the CRA is required to submit, in addition to information in part A, evidence of recognition conferred by an equivalent supervisor.

7. MAPPING OF CRAs RECOGNIZED BY THE CENTRAL BANK

For the purposes of determining capital charges the following CRAs will be recognized by the Central Bank for all financial institutions:

- Standards and Poor's (S&P's)
- Moody's
- Fitch
- CariCRIS

It should be noted that the Central Bank may from time to time amend the list of recognized CRAs and their equivalency mapping. Where this occurs, the Central Bank will take all necessary steps to inform financial institutions, including publishing the list of recognized CRAs and their equivalency mapping on the Central Bank's website.

The table below provides an equivalency mapping for the credit ratings of these recognized CRAs.

Ratings Equivalency Table

S&P's	Moody's	A.M. Best	Fitch	DBRS	CariCRIS ⁵⁰
AAA to AA-	Aaa to Aa3	aaa to aa-	AAA to AA-	AAA to AA(low)	-
A+ to A-	A1 to A3	a+ to a-	A+ to A-	A(high) to A(low)	<i>Cari</i> AAA
BBB+ to BBB-	Baa1 to Baa3	bbb+ to bbb-	BBB+ to BBB-	BBB(high) to BBB(low)	<i>Cari</i> AA+ to AA-
BB+ to BB-	Ba1 to Ba3	bb+ to bb-	BB+ to BB-	BB(high) to BB(low)	<i>Cari</i> A+ to A-
B+ to B-	B1 to B3	b+ to b-	B+ to B-	B(high) to B(low)	<i>Cari</i> BBB+ to BBB-
CCC+ and below	Caa1 and below	ccc+ and below	CCC+ and below	CCC(high) and below	<i>Cari</i> BB+ and below
Unrated	Unrated	nr-not rated	Unrated	NR-not rated	Unrated

⁵⁰ ⁵⁰ Please note that unlike all other CRAs presented in the table, CariCRIS was the only CRA subjected to a process of direct recognition by the Central Bank as outlined in this Guideline. All other CRAs were given indirect recognition. These CRAs are recognized subject to continued satisfaction of the eligibility criteria herein and in the case of those granted indirect automatic recognition, continued recognition as a “nationally recognized statistical rating organizations” regulated by the United States Securities and Exchange Commission.