CENTRAL BANK OF
TRINIDAD & TOBAGO

INSTRUCTIONS

FOR THE

COMPLETION OF THE

BASEL II/III CAPITAL ADEQUACY RETURN

June 2020

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PURPOSE

This document provides guidance to institutions licensed under the Financial Institutions Act, 2008 (hereinafter referred to as "licensees/ reporting institutions" as appropriate) on the completion of the revised Basel II/III Capital Adequacy Reporting Template (i.e. "CB 100B"/ "Return"). The instructions in this document are consistent with the rules set out in the Financial Institutions (Capital Adequacy) Regulations, 2020.

REPORTING

Individual Reporting- The Return is to be completed on a **monthly** basis and submitted to the Central Bank of Trinidad & Tobago ("Central Bank"/ "Bank") within twenty (20) working days of the last day of the month.

Consolidated Reporting- The Return is to be completed on a **quarterly** basis and submitted to the Central Bank within twenty (20) working days of the last day of the quarter.

Electronic copies of the Return should be submitted to cbttreports@central-bank.org.tt. **Hard copies** should be submitted to:

The Manager
Information Services Department – Statistics Division
Central Bank of Trinidad and Tobago

UNIT OF MEASURE AND REPORTING VALUES

Reporting institutions must report all values in thousands of Trinidad and Tobago dollars (TTD $000s).

Assets should be reported at the value outstanding in the reporting institution's books.

Positions in the banking book should be reported at cost while positions held in the trading book should be reported on a mark to market basis.

For off-balance sheet items (contingencies, guarantees, acceptances, etc.) the notional principal amount should be shown.

CREDIT RATING AGENCIES

For the purposes of calculating the value of risk weighted assets, reporting institutions may only use the ratings of external credit rating agencies that are recognized by the Central Bank. The Central Bank's "*Guidelines for Use of Credit Ratings by Regulated Financial Institutions*" provides specific guidance on:

a. the process applied by the Bank in recognizing credit rating agencies; and
b. the ways in which credit ratings are to be used by financial institutions for regulated purposes including the determination of risk based capital requirements.

REVIEW OF CREDIT RATINGS

Licensees are to regularly monitor the credit ratings assigned by external credit rating agencies. Relevant adjustments must be made to the capital calculation once there are changes to the ratings assigned to a counterparty's exposure.

CONSOLIDATED REPORTING

In completing the return, licensees that are reporting on a consolidated basis should use this document in conjunction with the Central Bank's "*Consolidated Prudential Reporting Guideline*".

REPORTING TEMPLATE

A. CELLS AND VALIDATIONS

This part provides some general information on the design of the template.

Data is to be entered into the bordered white cells only. Data must NOT be entered in grey cells.
The default for all cells that require data input is the value "0". No such cell is to be left blank.
A cell that is highlighted red signals that it has been left blank. Where this occurs the reporting institution should enter data in the cell or return the cell to its "0" default.
The CB100B has built-in validations. The register of template validations can be found in the last tab of the reporting template. Reporting institutions must ensure that there are no "FALSE" validations registered on this tab prior to submitting the return to the Central Bank.
Users must ensure that the correct version of the form is being used. This can be done by checking the top of column G of the tab labelled "Schedule Listing" where the version name is stated. Where a new version of the return is issued by the Central Bank, the version name will be communicated and should be cross referenced accordingly.

B. SCHEDULES

The detail under this part is divided into the following five (5) sections.

- Section 1 - Capital
- Section 2 - Credit Risk
- Section 3 - Market Risk
- Section 4 - Operational Risk
- Section 5 - Other Schedules

The sections set out the requirements and/or components of the relevant schedules of the CB100B.

SECTION 1 - CAPITAL

Schedule 1 – Minimum Capital Ratios

Reporting institutions are required to meet the minimum capital requirements set out in Schedule 1 of the Financial Institutions (Capital Adequacy) Regulations, 2020 (the Regulations) and the capital conservation buffer set out in regulation 18 of the Regulations.

Schedule 1 computes these capital adequacy ratios automatically based on computations from other schedules within the Return. No data inputs are required.

Reporting institutions that are required to have a D-SIB capital add-on are to insert the relevant ratio in cell F15.

Schedule 2 – Summary of Risk-Weighted Assets

This schedule calculates the total risk weighted assets based on the credit risk, operational risk, and market risk. The figures in this schedule are generally carried forward from supporting schedules in the return.

The risk weighted assets for Credit risk is the sum of risk weighted assets for all credit risk exposures (determined from schedules 5 to 17).

The risk weighted assets for Market and Operational risks are determined by:

1. importing the relevant market risk capital charges from schedules 21, 21B, 21C, 21D and 21E;
2. multiplying by the aggregate of the market risk capital charges at 1 above by 10 (i.e. the reciprocal of the 10% minimum capital adequacy ratio);
3. importing the relevant operational risk capital charge from schedule 22; and
4. multiplying by the operational risk capital charge by 10 (i.e. the reciprocal of the 10% minimum capital adequacy ratio).

Schedule 3 – Capital

The following are included on this schedule:

- Common Equity Tier 1 Capital and deductions from Common Equity Tier 1 Capital
- Additional Tier 1 Capital and deductions from additional Tier 1 Capital
- Tier 2 Capital and deductions from Tier 2 Capital

The components of each capital element including the associated limits and deductions are set out in regulations 10-13 of the Regulations.

In general, the respective capital components are to be filled in by the reporting institution. However, securitization related deductions as well as deductions from other credit risk weighted assets (from schedule 16 and schedule 17) are imported to Schedule 3.

50% of these deductions are taken from Tier 1 capital and 50% from Tier 2 capital except for the following which are deducted in full from Tier 1 capital:

i. ‘Gain on sale’ from securitization exposures;
ii. Goodwill; and
iii. Intangible assets

Schedule 3A – Capital from Subsidiaries

This schedule is to be completed by institutions reporting on a consolidated basis. Net figures for CET1 capital, Additional Tier 1 capital and Tier 2 capital for each banking/financial subsidiary held by the reporting institution should be presented on this schedule.

Schedule 3B – Supplementary Subsidiary Information

This schedule is to be completed by institutions reporting on a consolidated basis. In completing this schedule, reporting institutions should be guided by the provisions of the Central Bank's "*Consolidated Prudential Reporting Guideline*".

Schedule 4 – Allowance for Impairment: Capital Treatment

Schedule 4 reports the general and specific provisions of the reporting institution as well as partial write-offs. The general provision reported here should reconcile with the figure reported on Line 70 labelled "W" on Schedule 3 - Capital.

Specific provisions (and partial write-offs) for all banking book exposures should be reported on this schedule.

SECTION 2- CREDIT RISK

The credit risk capital charge is calculated for all banking book and securitization exposures.

Credit Risk General Information

Gross and Net Exposures

For the purposes of the credit risk schedules in the Return:-

"**Gross Exposure**" means the exposure gross of all provisions for credit losses; and

"**Net Exposure**" means the gross exposure less specific provisions (and partial write-offs).

Banking Book Exposures

In general, banking book exposures are to be classified by exposure class as shown in Table I and further sub-categorized by exposure type as shown in Table II.

Table I - Exposure Classes			Table II – Exposure Types
Sovereign			Drawn
Public Sector Entities PSEs			Undrawn Commitments
Multilateral Development Banks MDBs			Repo-Style Transactions
Banks and Securities Firms LT			Derivatives
Banks and Securities Firms ST			Other Off-Balance Sheet
Corporates and Securities Firms LT			

Table I - Exposure Classes			Table II – Exposure Types
Corporates and Securities Firms ST			
Commercial Real Estate			
Residential Mortgages			
Other Retail			
Small Business Entities (SBE) other Retail			
Private Equity			

Both the gross and net exposure (the gross exposure less specific provisions and partial write offs) should be reported for all banking book exposures. The difference between the gross and net exposures reported on the banking book schedules should reconcile with the specific allowances and partial write offs outlined on Schedule 4 - Allowance for Impairment: Capital Treatment.

A. *Exposure Types*

On-balance sheet and off-balance sheet exposures under each banking book exposure class in Table I are to be categorized by exposure type in Table II as outlined below. It should be noted that all off-balance sheet exposures are to be converted to an on-balance sheet credit equivalent amount (CEA) (via the application of the appropriate credit conversion factor (CCF)) and risk weighting based on the risk rating of the counterparty[1].

Drawn

Drawn refers to the amount of funds invested or advanced to a customer including accrued interest[2] and dividends receivable on these amounts. All on-balance sheet exposures (excluding on-balance sheet repo style transactions) would fall under this category.

Undrawn Commitments

An undrawn commitment is the difference between the advised authorized[3] amount and the drawn amount (e.g. the unused portion of a line of credit).

Undrawn commitments would include all retail and non-retail commitments. The credit

1 General treatment, however, there are some exceptions for example assets sales with recourse to the bank where the risk weight is applied by asset and not by counterparty.
2 It should be noted that institutions may report accrued interest under schedule 17- unallocated payments and accrued interest. However, supporting documentation indicating that the institution has elected this option should be provided.
3 Advised authorized refers to commitments, firm or unconditionally cancellable, that are communicated to the customer in writing.

conversion factor to be applied to such commitments should be determined by their maturity as follows:

Commitments that are unconditionally cancellable without prior notice	0% CCF
Commitments with an original maturity of up to one year	20% CCF
Commitments with an original maturity exceeding one year	50% CCF

Other Off-Balance Sheet

All "other off-balance sheet" arrangements other than derivatives, repos and undrawn commitments should be included under this category. The exposures outlined below should be treated under the "other off-balance sheet" category and assigned the corresponding CCF as follows:

Short term self-liquidating letters of credit	20% CCF
Trade Related contingencies	50% CCF
Note Issuance /Revolving underwriting facilities	50% CCF
Direct Credit Substitutes	100% CCF
Forward asset purchases	
Forward Deposits	
Partly Paid Shares and securities	
Asset sales with recourse	

In general, "other off balance sheet" exposures are to be risk weighted according to risk weight of the counterparty, however the following should be categorized by counterparty (i.e. exposure class) but assigned a blanket 100% risk weight:

- Direct credit substitute
- Asset sales with recourse
- Forward asset purchases
- Partly paid up shares and securities

<u>For exposure types classified as "Undrawn Commitments" and "Other Off-Balance Sheet", please note the following:</u>

- The ***Notional Principal Amount*** is the off-balance sheet value of the exposure;

- The ***Gross Exposure*** is the exposure after the application of the appropriate CCF; and
- The ***Net Exposure*** is the gross exposure less specific provisions (or partial write offs).

Repo Style Transactions

This category comprises repurchase and reverse repurchase agreements, securities lending and borrowing held both on and off balance sheet. All off-balance sheet repo style transactions are to be subject to a 100% CCF**.** Examples of the treatment of collateralized repo-style transactions are provided in Appendix 1.

Derivatives

Derivatives refer to derivative transactions that are conducted over the counter (OTC) or traded on a public exchange.

- The *Notional Principal Amount* of the derivative transaction should reconcile with figures reported in the derivative schedule (Schedule 19).
- The *Gross Exposure* to be reported is the credit equivalent amount (CEA) of the derivative. Reporting institutions are to calculate the CEA for each derivative contract using the current exposure method.
- The *Net Exposure* would be the gross exposure (CEA) less specific provisions (or partial write offs).

B. Exposure Classes

Table III sets out the exposure classes as defined in the relevant provisions of the Regulations:

TABLE III	
Exposure Class	**Regulation**
Sovereign	Clause 1-Schedule 2
Public Sector Entities PSEs	
Multilateral Development Banks MDBs	
Banks and Securities Firms LT	- The terms “bank” and “securities firms” are defined at Clause 1-Schedule 2 - Securities firms may be included under the exposure class

TABLE III	
Exposure Class	**Regulation**
Banks and Securities Firms ST	"Banks and Securities Firms" where they are subject to supervisory and regulatory arrangements comparable to those under the Basel II framework - LT refers to exposures with a maturity of more than 3 months - ST refers to exposures with a maturity of 3 months or less
Corporates and Securities Firms LT	- The term "corporates" is defined at Clause 1-Schedule 2 - Securities firms must be included under these exposure classes where it cannot be determined that the firms are subject to supervisory and regulatory arrangements comparable to those under the Basel II framework - LT refers to exposures with a maturity of more than 3 months - ST refers to exposures with a maturity of 3 months or less
Corporates and Securities Firms ST	
Commercial Real Estate	Clause 1-Schedule 2
Residential Mortgages	Clause 12-Part 1-Schedule 2
Other Retail	Other Retail refers to exposures to individuals that meet the criteria as a claim included in the regulatory retail portfolio set out in Clause 11-Part 1-Schedule 2
Small Business Entities (SBE) other Retail	- A small business entity (SBE) is defined under clause 1-Schedule 2. - SBE-other retail refers to exposures to SBEs that meet the criteria as a claim included in the regulatory retail portfolio set out in Clause 11-Part 1-Schedule 2
Private Equity	Private Equity is defined as a private equity investment under clause 1-Schedule 2.

In addition to the exposure classes outlined in Table III above, past due loans under each exposure class are to be treated with on the respective schedules. For example, past due corporate loans should be included on the relevant corporates and securities firms schedule while past due sovereign exposures should be included under the sovereign schedule.

Rules on the risk weighting of past due loans are set out in clause 14, Part 1-Schedule 2 of the Regulations.

Treatment of exposure class and type: Schedules 5 – 14

- For each exposure class, exposures are to be categorized based on the exposure type.

- All exposures in the columns labelled "***Before CRM***" are to be reported according to the risk weight of the obligor[4].

- Banking book exposures are to be reported both gross (of all provisions for credit loss), and net (gross less specific provisions or associated depreciation and partial write-offs).

- Trading book exposures are to be reported without reference to allowances given that exposures in the trading book are marked to market.

- Repo-style transactions are to be reported according to the exposure class of the counterparty to the repo-style transaction.

- Both notional and credit equivalent amounts are to be reported for the exposure types of undrawn commitments, derivatives, and other off-balance sheet items.

- The total notional and gross credit equivalent amounts for undrawn commitments and other off-balance sheet items across all exposure classes should reconcile to the total for the exposure type reported on Schedule 18 (Off-balance sheet exposures excluding derivatives and securitization exposures).

- Exposures before credit risk mitigation include the past due loans for each exposure class.

"Adjustments for CRM"

- **Allowance of CRM**
  - For the purposes of calculating capital charges, the following credit risk mitigants will be recognized: collateral, guarantees, credit derivatives and setting-off provided that the mechanism meets the criteria stipulated at Part II-

4 Subject to exceptions for example certain off balance sheet items and commercial real estate

Schedule 2 of the Regulations.

- Reporting institutions are to apply the simple approach for collateral to all banking book exposures. However, the comprehensive approach is to be applied to collateralized repo-style transactions in both the banking and trading book. The substitution approach will apply to all guarantees and credit derivatives in the banking book. The comprehensive approach is to be applied to all trading book transactions.

- The net exposure amount and/or risk weight would have to be adjusted (where applicable) to reflect the impact of credit risk mitigation (CRM).

- **Adjustment of the exposure for setting off**
  - Where on-balance sheet setting off is applied by the reporting institution, the net exposure (net of specific provisions and partial write-offs) would be adjusted against the corresponding liability.

- **Redistribution of net exposures for guarantees & credit derivatives, and collateral**
  - Negative dollar amounts in these columns, offset by positive dollar amounts within the same columns, are used to represent the movement of an exposure amount out of its pre-CRM (original obligor) risk weight and into the after-CRM risk weight (risk weight of the guarantor or collateral). Total exposures by class and by type do not change under this substitution approach. One column is provided to reflect the risk weight impact of guarantees and credit derivatives, and a separate column for the impact of collateral under the simple substitution approach.

- **Adjustment to net exposure for collateral under the comprehensive approach**
  - Negative dollar figures in this column represent the amount by which the pre-CRM exposure dollar value must be adjusted to arrive at the post-collateral adjusted exposure. With respect to repo-style transactions, adjustments may be positive or negative.

"Risk Weighted Assets"

- **Risk-weighted Assets** are automatically calculated by multiplying the after CRM net exposure (i.e. the gross exposure less specific provisions or associated depreciation/ partial write offs and after the application of any credit risk mitigant in respect of the exposure) by the appropriate risk weight.

Schedule 5 – Sovereigns

- Claims on sovereign should be treated with according to the rules set out in clause 5, Part 1-Schedule 2 of the Regulations.

- For the purposes of risk weighting, sovereign exposures should be split by exposures to Trinidad and Tobago (i.e. local) (whether TTD or not) and exposures to other sovereigns (i.e. foreign).

Schedule 6 – Public Sector Entities (PSEs)

Claims on public sector entities should be treated with according to the rules set out in clause 6, Part 1-Schedule 2 of the Regulations.

Schedule 7 - Multilateral Development Banks (MBDs)

Claims on multilateral development banks should be treated with according to the rules set out in clause 7, Part 1-Schedule 2 of the Regulations. Claims on the Bank for International Settlements (BIS) and the International Monetary Fund should be included under claims on MDBs.

Banks and Securities Firms

- Claims on banks should be treated with according to the rules set out in the clause 8-Part 1-Schedule 2 of the Regulations. Consistent with clause 9-Part 1-Schedule 2 of the Regulations, claims on securities firms may be assigned the same rating as claims on banks where the firm is subject to supervisory and regulatory arrangements comparable to those under the Basel II framework (including risk-based capital requirements).

- Reporting institutions are encouraged to consult with the Central Bank to confirm the appropriate treatment of their exposures to securities firms

Schedule 8 – Banks and Securities Firms -Long term (LT)

Claims on banks with a maturity of over three months should be treated with according to the rules set out in clause 8 (1) and 8(5), Part 1-Schedule 2 of the Regulations.

Schedule 8A – Banks and Securities Firms – Short term (ST)

There are two options available to reporting institutions for the risk weighting of short term claims on banks:

Option 1-No Issue Specific Short Term Rating

- Where the reporting institution has no issue specific rating for a short term claim, the risk weight should be guided by clause 8 (2)-Part 1-Schedule 2 of the Regulations.

- Where there is no issue specific rating, short term claims on banks in Trinidad and Tobago, denominated and funded in Trinidad and Tobago dollars, may be assigned a risk weight of 20% as set out in clause 8 (3) –Part 1-Schedule 2 of the Regulations.

- Due from Bank exposures may be treated as short term exposures to Bank and Securities Firms.

Option 2- Issue Specific Short Term Rating

- Where a reporting institution has an issue specific rating for a short term claim, the following risk weights are to be applied:

Instrument credit rating	A-I /P-I[5]	A2/P-2	A3/P3	Others[6]
	F1	F2	F3	
Risk Weight	20%	50%	100%	150%

- However, the application of these risk weights is subject to the following considerations:
    a) When there is an issue specific rating for a short term claim and this rating maps into a risk weight that is more favourable (i.e. lower) or identical to that derived from Option 1 above, the issue specific rating should be used for the specific claim only.

    b) When an issue specific rating for a short term claim maps into a less favourable (higher)

5 The notations follow the methodology used by Standard & Poor's, Moody's Investors Service and Fitch Ratings. The A-1rating of Standard & Poor's includes both A-1+ and A-1- and the F rating of Fitch ratings includes both the modifiers "+" and "-'.
6 This category includes all non-prime and B or C ratings.

risk weight, the treatment under Option 1 above cannot be used. All unrated short-term claims should receive the same risk weighting as that implied by the specific short-term assessment.

Corporates and Securities Firms

- Claims on corporates should be treated with according to the rules set out in the clause 10-Part 1-Schedule 2 of the Regulations. Consistent with clause 9-Part 1-Schedule 2 of the Regulations, claims on securities firms must be assigned the same rating as claims on corporates where the firm is subject not to supervisory and regulatory arrangements comparable to those under the Basel II framework.

- Reporting institutions are encouraged to consult with the Central Bank to confirm the appropriate treatment of their exposures to securities firms

Schedule 9 – Corporates and Securities Firms-Long Term (LT)

Claims on corporates with a maturity of over three months are to be risk weighted according to the rules set out in clause 10, Part 1-Schedule 2 of the Regulations.

Schedule 9A - Corporates and Securities Firms-Short Term (ST)

In addition to the rules set out in clause 10, Part 1-Schedule 2, where there is an issue specific rating for a claim on corporates with an original maturity of three months or less, the following risk weights are to be applied:

Instrument credit rating	A-I /P-I[7]	A2/P-2	A3/P3	Others[8]
	F1	F2	F3	
Risk Weight	20%	50%	100%	150%

Schedule 10 – Commercial Real Estate

- All commercial real estate exposure is to be addressed under Schedule 10 regardless of the counterparty to the arrangement.

- **Commercial real estate exposure is to be risk-weighted at 100%** in accordance with clause

7 The notations follow the methodology used by Standard & Poor's, Moody's Investors Service and Fitch Ratings. The A-1rating of Standard & Poor's includes both A-1+ and A-1- and the F rating of Fitch ratings includes both the modifiers "+" and "-'.
8 This category includes all non-prime and B or C ratings.

13-Part 1-Schedule 2 of the Regulations.

Schedule 11 – Residential Real Estate (Residential mortgage loans)

- Residential mortgage loans are loans that are fully secured by mortgages on residential property.

- Residential mortgage loans are to be treated with according to the rules set out in clause 12-Part 1-Schedule 2 of the Regulations.

- Residential mortgage loans which are past due for more than 90 days should be treated with according to the rules set out in clause 14 (3)-Part 1-Schedule 2.

Schedules 12 and 13 – Retail

- Schedules 12 and 13 are governed by the rules set out in clause 11-Part 1-Schedule 2.

- Schedule 12 should address exposures to individuals that meet the criteria as a claim included in the regulatory retail portfolio set out on clause 11 (2)-Part 1-Schedule 2 of the Regulations.

- Schedule 13 should address claims on small businesses enterprises (SBEs) that meet the criteria as a claim included in the regulatory retail portfolio set out on clause 11 (2)-Part 1-Schedule 2 of the Regulations.

- Consistent with clause 11 (5)-Part 1-Schedule 2 of the Regulations, where a claim does not meet the criteria to be included in the regulatory retail portfolio it is to be treated as a claim on corporates.

- Residential mortgages are to be ***excluded*** from the retail portfolio.

Schedule 14 – Private Equity

- Private Equity and venture capital investments are to be risk weighted at 150%.

- Quoted (Public) Shares and Stocks are to be addressed under Schedule 17, "Other Credit Risk weighted Assets".

Schedule 15 – Trading Book Exposures

- This schedule includes only repo-style transactions and OTC derivatives.

- For repo-style transactions, the exposure would be the marked to market value of trading book exposure.

- For derivatives, the notional amount would be reported and the exposure would be the credit equivalent amount (CEA) calculated by the reporting institution.

Schedules 16 and 20 – Securitization Exposures

- Securitization exposures should be treated with according to the rules set out in Part VI-Schedule 2 of the Regulations.

- All securitization exposures are to be treated with under schedules 16 and 20:-

    - the provision of credit risk mitigants to a securitization transaction;
    - investments in asset-backed securities (if tranched);
    - certificates of participation;
    - retention of a subordinated tranche; and
    - extension of a liquidity facility or credit enhancement.

- Repurchased securitization exposures must be treated as retained securitization exposures.

- Reporting institutions must calculate capital charges for securitization exposures where it provides implicit support as if these assets were still on its balance sheet. All exposures associated with such securitization transactions should be reported with other balance sheet and off-balance sheet exposures and risk weighted accordingly.

- Schedule 16 should include the calculation of the risk weighted assets for each category of securitization exposures. Both the notional and credit equivalent amounts must be captured for the off-balance sheet exposures.

- All securitization exposures including re-securitizations (before credit risk mitigation) that meet the definition and operational requirements of the credit risk securitization framework are to be reported on Schedule 20.

- The on and off-balance sheet exposures reported on Schedules 16 and 20 combine synthetic and traditional securitizations and should reconcile in total to the “Total Exposure (credit equivalent amount for off-balance sheet)” figures reported on Schedule 20 (net of specific provisions). A distinction is also made between investor and originator exposures.

Schedule 16 – Credit Risk Treatment

- Schedule 16 is divided into four main sections and one summary section.

Section A - Select originator securitization exposures

- This section reports the reporting institution’s “gain on sale” and credit-enhancing interest-only (CEIO) strips, net of “gain on sale”. The “gain on sale” and CEIO strips reported on Schedule 16 should be those that are associated with the securitization transactions reported. The basis for reporting CEIO strips (i.e. fair market value or full notional balance) should be the same as that used for accounting purposes.

- The entire amount of any gain-on-sale and CEIO strips arising from any securitization transaction must be deducted from capital. A deduction of a gain on sale from capital should be deducted in full from Tier 1 capital. CEIO strips may be deducted 50% from Tier 1 and 50% from Tier 2 capital.

Section B - Rated exposures

- All rated securitization exposures (long and short term) should be dealt with in this section, classified by investor/originator exposure and based on the credit rating of the securitization exposure. Securitization exposures excluding re-securitization are captured in subsection B (i), with re-securitization exposures reported separately in subsection B (ii).

- Rated securitization exposures are to be risk weighted or deducted in accordance with the rules set out in clauses 54, 55 and 58-Part VI-Schedule 2 of the Regulations.

Section C - Unrated Exposures

- Section C is similar in structure to section B and addresses capital charges (or deductions as appropriate) for unrated securitization exposures that are subject to certain exceptions.

- In accordance with the rules set out in clause 55 (4)-Part VI-Schedule 2 of the Regulations, unrated securitizations are generally deducted from regulatory capital subject to certain exceptions. These exceptions are represented by each line item under unrated exposures. Where the exposure does not qualify as an exception under any of the categories itemized, it should be classified as “other unrated exposures”.

- Reporting institutions should be guided by the rules set out in clauses 56-62-Part VI-Schedule 2 of the Regulations with respect to the treatment of the exceptions from the general rule. A synopsis of the risk weighting of unrated securitization exposure is provided in the table:-

Unrated exposure	**Treatment**
Unrated most senior securitization exposure	a) Deduct from capital where the risk weights of the exposures in the underlying pool of assets are unknown b) Apply the look through treatment to determine the appropriate risk weight where the risk weights of the exposures in the underlying pool of assets are known at all times. Where a reporting institution uses look through to determine the appropriate risk weight, this risk weight should be inserted in column C.
Eligible Liquidity Facility	Unrated eligible liquidity facilities are to be risk weighted based on the highest risk weight to be applied to the underlying individual exposures.
Second loss (Or better) positions in ABCP[9] programmes	a) Deduct from capital b) Apply the greater of a 100% risk weight or the highest risk weight assigned to any of the underlying individual exposures covered by the facility, where the sponsoring institution to an ABCP programme satisfies the criteria. The risk weight should be inserted in column C.
Other unrated exposures	Deduct from Capital

9 Asset Backed Commercial Paper

- Where the deduction of capital is required for an unrated securitization exposure, the corresponding figure will be reconciled with the Tier 1 and Tier 2 deductions (as appropriate) on the capital schedule (Schedule 3).

Section D - Early Amortization

- This section is to be completed where a reporting institution is an originator of a securitization structure that has an early amortization feature and the spread is below the capture levels. The capital requirements calculated under this part would be in addition to the requirements for the exposures reported in sections B and C.

- In completing the table in this section, reporting institutions should be guided by the rules set out under clauses 70-79-Part VI-Schedule 2 of the Regulations.

Schedule 20 – Securitization Banking Book

- Generally, all securitization-related exposures are to be reported on Schedule 20.

- Exposures created as a result of implicit securitization support are to be treated as if the exposures had not been securitized and accordingly are to be reported on the appropriate exposure class schedules for credit risk.

- Traditional securitizations are to be reported separately from synthetic securitizations. In addition rated and unrated exposures are separated.

- All securitization-related gains on sale are to be included under on-balance sheet exposures. Exposures are to be reported before any credit risk mitigation.

- For off balance sheet securitizations, all rated exposures are to be treated with in rows 21 or 24 depending on whether it is a traditional or synthetic securitization.

- Where the securitization exposure is unrated, the exposure must be classified by type of unrated securitization exposure, for example, if it is an eligible liquidity facility.

- Where the exposure does not fall into any of the types of unrated off balance sheet exposures expressly identified, the exposure should be classified as “other unrated”.

- The notional amounts of off-balance sheet exposures are converted to credit equivalent amounts by applying prescribed credit conversion factors.

- The securitization calculations on Schedule 16 must reconcile with the information contained in Schedule 20.

Schedule 17 - Other Credit Risk Weighted Assets

- This schedule generally captures banking book balance sheet assets that are not reported elsewhere.

- **Section A**
  - In section A, an exposure is multiplied by the appropriate risk weight factor to arrive at a risk-weighted asset or where appropriate a deduction is applied to the exposure. Reporting institutions are required to insert the exposure amounts for each of the other assets outlined.

  - Where an exposure cannot be classified as any of the listed items in section A, it is to be treated with under "All other assets not included elsewhere" and risk weighted at 100%.

  - Section A also addresses **Unsettled non-DvP trades**[10]**.** Unsettled non-DvP trades are treated in accordance with clauses 51 (8) and 51 (9)-Part V- Schedule 2 of the Regulations i.e. if the second leg of an unsettled non DvP transactions
    i. is less than five days late, it should be risk weighted at 100%; and
    ii. is five days late or more, it must be deducted from capital.

- **Section B**
  - The calculation of credit risk-weighted assets for failed DvP trades is addressed under Section B.

  - This section 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

10 Delivery versus payment (DvP) transactions and non-delivery versus payment (non DvP) transactions are defined in regulation 3 of the Regulations.

that have failed to settle are excluded from this capital treatment.

- **Risk weighting of failed non-DvP transactions** (in the banking and trading book) should be guided by the rule set out in clause 51(7)-Part V-Schedule 2 of the Regulations.

  For failed non DvP transactions, reporting institutions are to insert the positive current exposure value categorized by the number of working days after the agreed settlement date that the transaction has taken to be settled.
- The positive current exposure is the difference between the transaction value at the agreed settlement price and the current market price of the transaction, if the difference results in a credit exposure of the reporting institution to the counterparty in the transaction.

- The risk weighted assets for failed DvP transactions will be automatically calculated by multiplying the positive current exposure inserted by the appropriate risk factor.

Schedule 18 – Off Balance Sheet (Excluding Securitization and Derivatives)

- The off-balance sheet exposures reported on this schedule include undrawn commitments and other off-balance sheet exposures.

- Derivative and securitization-related exposures are excluded from this schedule and are captured separately in schedules 19 and 20, respectively.

- Exposures and credit equivalent amounts are reported gross of allowances and before any credit risk mitigation.

- The total notional principal and credit equivalent amounts reported on this schedule should equal the sum of these amounts reported for exposure types Undrawn Commitments (retail and non-retail) and Other Off-Balance Sheet in the respective exposure class schedules.

Schedule 19 – Derivatives

- Generally all derivatives are subject to a capital requirement for default risk.

- Risk-weighted assets for the default risk on derivatives (including OTC and exchange-traded contracts) are reported on the exposure class schedules (e.g. Corporate, Sovereign, Bank).

- **Section A - All Derivatives – Notional Principal Amount**
  - The notional amounts of all derivatives, regardless of whether they attract a capital charge or whether they are in the banking or trading book, are reported in section A.

  - Notional amounts are reported by product type (e.g. credit derivatives, interest rate, foreign exchange) and by contract type. The notional amounts are further broken down by maturity band, for example less than one year, one year to five years, etc.

  - All credit derivatives are reported in section A. In the capital framework, credit derivatives through which the reporting institution has acquired protection for hedging either banking book exposures or counterparty credit risk on trading book OTC derivatives are treated as credit risk mitigants. Banking book credit derivatives through which the reporting institution has provided protection are also to be reported on schedule 18 as direct credit substitutes.

- **Section B - Counterparty Credit Risk Exposure for Default Risk Capital Requirements**
  - Section B of schedule 19 collects information on the credit equivalent amount (CEA) of derivatives, which is the basis for the default risk capital requirements.

  - Only in limited circumstances are certain derivatives excluded from this calculation, for example, credit derivatives provided or acquired for the purposes of credit protection in the banking book[11].

  - The CEA of a derivative is to be determined using the current exposure method (CEM).

  - The total outstanding CEA reported on schedule 19 for derivatives should reconcile with the credit equivalent amounts reported for derivatives across each exposure class schedule.

- **Current Exposure Method[12]**
  - The Current Exposure method is guided by the rules set out in Part IV-Schedule 2 of the Regulations.

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11 Credit derivatives held in the trading book and not hedging banking book items or the counterparty credit risk on other trading book derivatives are included in Part B of schedule 19.

12 See Appendix 3 for an example on the calculation of CEM

- Under the current exposure method, the CEA of a derivative is generally calculated as the sum of its replacement cost, if positive, plus an amount for potential future credit exposure (i.e. the add-on).

- Replacement cost is determined by the "marked to market" value of the derivative. The potential future credit exposure is calculated for a derivative regardless of whether its replacement cost is positive or negative[13].

- The potential future credit exposure is generally calculated by applying a prescribed add-on factor to the notional principal amount.

- To calculate the credit equivalent amount of a number of derivative contracts, negative replacement costs can offset positive replacement costs if the conditions for netting are met.

- Credit equivalent amounts calculated and reported in section B of schedule 19 should not reflect the impact of collateral, if any. Recognition of credit risk mitigation on these exposures is reflected in the exposure class schedules for credit risk-weighted assets.

- Note that written options do not attract counterparty credit risk and that their notional amounts and gross positive or gross negative replacement costs should not be included in this section of schedule 19. However, written options that meet the netting conditions may be taken into account in determining the net positive replacement cost of contracts that attract counterparty credit risk and that are subject to permissible netting.

SECTION 3 - MARKET RISK

Schedules 21-21E

The market risk capital charge is the sum of capital charges for foreign exchange, interest rate, equity and commodity risks. The determination of market risk capital charges should be guided by the rules set out in Schedule 4 of the Regulations and the Central Bank's "*Market Risk Instruction Manual*"

13 An exception applies in the case of single currency floating/floating interest rate swaps, for which no potential future credit exposure is calculated.

Schedule 21 – Foreign Exchange Risk

The determination of the minimum capital requirement for foreign exchange risk should be guided by the rules set out in clauses 35-39 of Schedule 4 of the Regulations;

Parts A and B below should be followed in reporting on foreign exchange risk.

Part A

1. Data on foreign currency assets and liabilities, both resident and non-resident, should be reported. Where applicable, the data provided in the **Total** column should correspond with the foreign currency data presented in the CB 20 Monthly Statement of Condition.

2. The TT dollar equivalent in thousands should be provided under each currency type.

3. The Guidelines for Reporting on the CB 10 Weekly Foreign Position are applicable, with the exception of those pertaining to Ratings (Column 2) and Non-collateral (Column 3).

4. Interest accrued should be included in Item 17 – Accounts Receivable.

5. **Memo Items**

   Item 20 includes the following:

   - All amounts to be **received** under forward foreign exchange transactions, including currency futures and currency swaps.
   - Future income not yet accrued but already fully hedged.

6. Accrued Expenses should be included in Item 2605 – Accounts Payable.

   Item 28 includes the following:

   - All amounts to be paid under forward foreign exchange transactions, including currency futures and currency swaps.
   - Future expenses not yet accrued but already fully hedged.

7. Other Currency Column

   - Currency type should be specified.

8. Foreign currency data reported on the CB 100B should correspond with the foreign currency data presented in the CB20 Monthly Statement of Condition. The guidelines for reporting are outlined below.

Assets

9. Liquid funds (item 11) as outlined in the CB20 guidelines represent all those foreign currency assets in the form of cash and those that can be easily converted into cash. It includes foreign currency cash, foreign currency deposits at the Central Bank, foreign balances due from banks and foreign currency cash items in the process of collection. See CB20 guidelines for further details of each account.

10. The total balances due from banks must be reported under the heading labeled foreign currency on the CB 20.

11. Inter-bank funds sold (item 12) (foreign currency) should be reported as reflected in the CB20 guidelines. This includes all foreign currency transactions with commercial banks involving immediately available funds for one to fifteen calendar days.

12. Investments (item 13) refer to investments denominated in foreign currency. This also holds for the sub-components highlighted. The total investments denominated in foreign currency must be reported under Account 13 on the CB10 form and should correspond with Account 13 of the CB20 form.

13. Loans (item 14) refer to foreign currency loans to residents and non-residents and should be consistent with foreign currency loans reported in the CB20 under Account 85, memoranda accounts.

14. Customers' liabilities on Acceptance (item 15) should correspond with the foreign currency portion of Account 15 of the CB20 report form.

15. Equity in subsidiaries and affiliates (item 16) should be reported as outlined in the CB20 guidelines.

16. Accounts receivable (item 17) should be reported as outlined in the CB20 guidelines.

17. Foreign currency fixed assets should be reported as outlined in the CB20 guidelines. On the reporting template this item should be included under prepaid expenses and other assets.

18. Prepaid expenses and other assets (item 19) should be reported as outlined in the CB20 guidelines. Inter-office account denominated in foreign currency is a sub-account of Account 19, and should correspond with the foreign currency portion of Account 1902, due from Head Office.

Liabilities

19. Deposits (item 21) refer to foreign currency deposits (demand, savings and time) of both residents and non-residents and should correspond with Account 84, memoranda accounts of the CB20 form.

20. Inter-bank funds bought (item 22) refers to all foreign currency transactions with other commercial banks involving the purchase of immediately available funds for one to fifteen calendar days at a specified rate of interest. It should be reported as specified in the CB20 guidelines.

21. Central Bank Funds (item 23) refers to all foreign currency borrowings from the Central Bank for periods of one (1) to fifteen (15) days and should be reported as in the CB20 form.

22. Borrowings (item 24) refer to short-term borrowings with maturity up to one year as outlined in the CB20 guidelines. It should correspond with Account 24 of the CB20 call report form.

23. Acceptances executed (item 25) is the contra account to Account 15.

24. Other Current liabilities (item 26) refer to the foreign currency portion of Account 26 of the monthly CB20 form. Accounts payable refers to the foreign currency portion of sub-account 2605. Inter-Office Accounts refer to the foreign currency portion of Account 2606 that is due to Head-Office.

25. Long-term liabilities (item 27) refer to all long-term foreign currency borrowings and should correspond with the foreign currency data reported in Account 27 of the CB20 form.

26. Capital (item 3) refers to that portion of the owners' investment in the banks that is denominated in the foreign currency.

Part B

1. This section requires no data input. The components are automatically populated from other sections of the schedule.

2. The long or short position reported in Part B corresponds with the long or short position reported under each currency in Part A of the return as the Net Position.

3. The Total Capital Charge for Foreign Exchange Risk includes the capital charges for:-
   i. foreign currency risk; and
   ii. foreign currency options.

4. The Foreign Currency Exposure reported as item A (cell E122) is calculated as the greater between the absolute value of the total long and total short position.

5. The Foreign Currency Risk Capital Charge is determined by multiplying the Foreign Currency Exposure by 10%.

6. The capital charge for foreign currency options is imported from Schedule 21E.

Schedule 21A – Market Risk Trigger

1. The market risk trigger is **not** applicable to capital reporting for foreign exchange risk and commodity risk. Capital reporting is required by all reporting institutions for their foreign exchange risk and commodity risk exposures.

2. All reporting institutions are to complete Schedule 21A-Market Risk Trigger to determine if capital reporting is required for interest rate and equity risks.

3. Capital reporting for interest rate and equity risks applies to reporting institutions where the value of securities and associated derivatives that are marked to market represents 10% or more of total assets.

Schedules 21B -21E – Interest Rate Risk, Equity Risk, Commodity Risk and Options

1. The determination of the minimum capital requirement for:
    a. interest rate risk including interest rate derivatives should be guided by the rules set out in clauses 5-26 of Schedule 4 of the Regulations;
    b. equity risk including equity derivatives should be guided by the rules set out in clauses 27-33 of Schedule 4 of the Regulations;
    c. commodities risk including commodity derivatives should be guided by the rules set out in clause 34 of Schedule 4 of the Regulations; and
    d. options should be guided by the rules set out in clause 40 of Schedule 4 of the Regulations.

2. Reporting institutions should also be guided by the Central Bank's "*Market Risk Instruction Manual*".

SECTION 4 - OPERATIONAL RISK

Schedule 22

1. The calculation of capital charges for operational risk should be guided by the rules set out in Schedule 3 of the Regulations.

2. The operational risk capital charge is to be calculated using gross income figures over the preceding three year period with income broken down into eight (8) business lines.

3. Reporting institutions would be required to map the gross income for its business into the eight business lines for the three year period[14].

4. Where a reporting institution is unable to map an activity into one of the eight business lines, the reporting institution should report it under "Other" which is assigned the highest beta (i.e. 18%).

SECTION 5 - OTHER SCHEDULES

Schedule 23 – Gross Exposures by Original Obligor and Ultimate Guarantor

This schedule provides an overview of gross exposures by exposure class. The exposures reported

14 The three years represents the period up to and including the reporting period.

for each class should include all the applicable exposure types (e.g., drawn, undrawn, derivatives, etc.) Exposures are reported in a matrix showing original obligor and ultimate guarantor.

Pre-CRM Exposure by Original Obligor

1. Exposure amounts by original obligor should reconcile to the "Pre-CRM" gross exposure amounts reported for each exposure class in the credit risk core schedules.

Guaranteed Exposure, by Ultimate Guarantor

2. Those portions of exposures that derive a risk weight benefit from guarantees or credit derivatives should be allocated to the exposure class of the guarantor. Guaranteed exposures must be reported by ultimate guarantor regardless of the method used to reflect the guarantee in the exposure class schedules.

   Examples:

   a) a corporate exposure guaranteed by another corporate would be reported in column (a) as a corporate exposure, with an amount in the guarantee column (f) for "Corporate excl. SMEs"; and

   b) a corporate exposure guaranteed by a reporting institution would be reported in column (a) as a corporate exposure, with an amount in the guarantee column (d) for "Bank" even though in the credit risk schedules the exposure remains in the corporate class.

Schedule 24 – Balance Sheet Coverage by Risk Type and Reconciliation to Consolidated Balance Sheet

1. Schedule 24 summarizes the balance sheet assets covered in the capital adequacy return by exposure type and risk framework. It compiles the exposures reported under the credit risk framework, and adds the balance sheet assets that attract a specific risk charge under the market risk framework.

2. Adjustments are made to avoid double counting of particular assets such as those that attract both credit and specific market risks.

3. Adjustments are made to recognize differences in measurement of certain items between the two calculations, such as recognition of exposures (trade / settlement date) and the treatment

of general provisions.

4. To confirm the integrity of the capital adequacy calculations, schedule 24 produces a reconciliation of the balance sheet for capital purposes to the institution's consolidated balance sheet for accounting purposes.

5. Reconciliation items include the translation from equity to consolidation accounting for subsidiaries that are not consolidated for capital adequacy purposes.

Credit Risk Section

6. With two exceptions, all of the figures in this section are carried forward or calculated from data reported in earlier schedules.

7. Assets related to securitization, including the gain on sale, should equal the on-balance sheet securitization exposures reported on schedule 20. To the extent that a gain on sale included on schedule 20 is reported net of tax, and does not match the asset amount recorded on the balance sheet, an adjustment is required to yield the associated asset balance. The adjustment should be reported on schedule 24 in the "Other" subcomponent of the line "Securitization-related assets not recognized for capital ratio calculations but consolidated for balance sheet purposes".

8. The figures reported for "specific provisions and partial write-offs" (labelled (d)) must equate to the sum of specific provisions and partial write-offs for "Drawn" and "Repo-style transactions" reported on Schedule 4 – Allowance, for each corresponding exposure class. This figure must also equate to the sum of the difference between the total gross and net exposures for "Drawn" and "Repo-style transactions" for each corresponding exposure class.

Gross Balance Sheet Exposures

9. Exposures for portfolios are gross of all allowances.

Market Risk Section

10. The balance sheet assets that attract a specific risk charge should be reported under the market risk framework. These should be the spot balances as at the reporting date, determined on the same recognition basis (i.e. trade or settlement date) as used for accounting purposes.

Balance Sheet Assets included in both credit and market risk

11. This adjustment is made to eliminate double counting of certain assets. It is limited to the trading book repo-style assets on the balance sheet that attract both credit and specific market risk.

Securitization-related adjustments

12. The securitization-related exposures reported in the Credit Risk section on the upper portion of Schedule 24 are the on-balance sheet exposures determined for capital ratio purposes. For example, for assets securitized by a reporting institution but not derecognized for accounting purposes, the retained interest exposure recognized for credit risk must be reported in the line " 'On-balance sheet' securitization exposures recognized for capital ratio but not for consolidated balance sheet purposes".

13. The amount recognized as a balance sheet asset for accounting purposes must be reported in the line "Non-derecognized securitized assets", a subcomponent of "Securitization-related assets not recognized for capital ratio calculations but consolidated for balance sheet purposes". Similarly, third party assets that are consolidated for accounting purposes but not recognized as a credit risk exposure must be reported on the subcomponent line "Consolidated securitization assets".

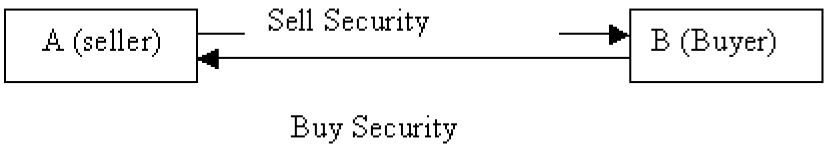
14. Liquidity facilities provided by the reporting institution to consolidated securitization entities remain off-balance sheet and are not reported on schedule 24.

APPENDIX 1 – Examples of Calculations for Capital Requirements for Repo-style Transactions

A. Definitions

i. **A repurchase agreement (repo)** is an agreement in which a participant (A) sells a security (or securities) to a party (B) to acquire immediate funds and agrees to purchase the same or similar securities after a specified time at a given price. Essentially, A borrows money from B against a certain amount of collateral[15] and the transaction is in effect collateralized short-term lending.

Diagram 1



ii. **A reverse repo** is the repo transaction considered from the perspective of the buyer. If Diagram 1 is considered from the buyer's perspective i.e. from B's perspective, the transaction will be termed as a reverse repo. Hence, whether a transaction is a reverse repo or a repo transaction is determined by who has initiated the transaction.

iii. A **securities lending transaction** is one in which the lender transfers securities to a borrower who is in need of such securities. The borrower transfers cash or securities to the lender as collateral. At the end of the transaction, the lender gets back securities equivalent to the ones which were originally transferred to the borrower and receives an additional fee while the borrower receives equivalent collateral.

iv. **Over-the-Counter (OTC) Derivatives-** these are contracts that are traded (and privately negotiated) between two parties (usually through a dealer network) without going through an exchange or other intermediary.

v. **Over-the-Exchange (OTE) Derivatives-** these are contracts that are publicly traded over a recognized exchange (e.g. New York Stock Exchange).

vi. **Master Netting Agreement (MNA) -** An agreement that permits netting of amounts owed

15 However, collateral for repos is not pledged like traditional collateral but sold and then repurchased at maturity.

under transactions detained by the same counterparty.

B. Repo-style Transactions

Given that repo-style transactions are collateralized, capital requirements for repos, reverse repos and securities lending transactions will be calculated applying the principles covered under the Credit Risk Mitigation (CRM) framework (in particular for collateral). The intention here is to obtain a net exposure amount after netting of the exposures and collateral and have an add-on amount reflecting possible price changes for the securities involved in the transactions and for foreign exchange risk if any.

i. Where the transaction is not subject to a master netting agreement, the following formula is to be applied:

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

Where:

E^* = the exposure value after risk mitigation

E = current value of the exposure

He = haircut appropriate to the exposure

C = the current value of the collateral received

H_c =haircut appropriate to the collateral

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

ii. Where the transaction <u>is subject to a master netting agreement</u> the following should formula should be applied:

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

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

Hs = haircut appropriate to Es

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

H_{fx}= haircut appropriate for currency mismatch

iii. The following supervisory haircuts are to be applied

Issue rating for debt securities	Residual Maturity	Sovereign (%)	Other issuers (%)
AAA to AA-/A-1	≤ 1 year	0.5	1
	> 1 year, ≤ 5 year	2	4
	> 5 years	4	8
A+ to BBB-/A-2/A-3/P-3 and unrated bank securities	≤ 1 year	1	2
	> 1 year, ≤ 5 year	3	6
	> 5 years	6	12
BB+ to BB-	All	15	
Main index equities (including convertible bonds) and Gold		15	
Other equities (including convertible bonds) listed on a recognized exchange		25	
Undertakings for Collective Investments in Transferable Securities (UCITS) / Mutual funds		Highest haircut applicable to any security in which the fund can invest	
Cash in the same currency		0	

C. Calculations For Transactions Without Master Netting Agreement

Here the formula E*=max (0, [E x (1 + He) – C x (1 – H_c – H_{fx})]) is applied.

Consider the following scenarios:

BOND	Bond counterparty	Rating	Currency	Maturity
A	Bank A	A+	USD	2022-10-31
B	Sovereign	AA-	USD	2025-01-31
C	Bank C	A-2	CAD	2018-06-30

1. Repo transaction with Bank A

NO MNA, NO Currency mismatch	
Transaction Type	**Repo**
Collateral	**Cash**
Current Value of Collateral (C)	1000
Haircut H_c	**0%**
Value after Haircut C x (1 - H_c)	**1000**
Exposure	**Bond A**
Current Value of Exposure (E)	1000
Haircut H_e	**12%**
Value after haircut E x (1 + H_e)	**1020**

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

$E^* = \max(0, [1000 \times (1 + 12\%) - 1000 \times (1 - 0\%)])$

$E^* = 120$

This will be reported as follows[16]:

Schedule 8 - Standardized Approach - credit risk-weighted assets

Return to Schedule Listing

For Banking Book - Bank & Securities Firms - Maturity > 3 months

(TT$ 000)

	Before CRM			Adjustments for CRM			After CRM	
Risk weight	Notional Principal Amount	Gross* exposure (credit-equiv. amount for off B/S)	Net* exposure (credit-equiv. amount for off B/S)	Redistribution of net exposure for guarantees, credit derivatives	Redistribution of net exposure for collateral (simple approach)	Adjustment to net exposure for collateral (comprehensive approach)	Net exposure	Risk-weighted Assets
(a)			(b)	(c)	(d)	(e)	(f = b+c+d+e)	(g = a x f)
Repo-style Transactions								
20%							0 $	0 $
50%		1 120 $	1 120 $			(1 000 $)	120 $	60 $
100%							0 $	0 $
150%							0 $	0 $
Total		1 120 $	1 120 $	Note **	Note **	(1 000 $)	120 $	0 $
Total		1 120 $	1 120 $					60 $

* Gross means gross of all allowances for credit loss. Net is gross less individual allowances.

** Must sum to zero.

16 Please note that the Banking and Securities Firms Schedule is being used for illustrative purposes only.

2. Reverse repos transaction with Bank A

NO MNA, NO Currency mismatch	
Transaction Type	**Reverse Repo**
Collateral	**Bond A**
Current Value of Collateral (C)	1000
Haircut Hc	**12%**
Value after haircut C x (1 - H_c)	**880**
Exposure	**Cash**
Current Value of Exposure (E)	1000
Haircut H_e	**0%**
Value after haircut E x (1 + H_e)	**1000**

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

$$E^* = \max(0, [1000 \times (1 + 0\%) - 1000 \times (1 - 12\%)])$$

$$E^* = 120$$

This will be reported as follows:

Schedule 8 - Standardized Approach - credit risk-weighted assets

Return to Schedule Listing

For Banking Book - Bank & Securities Firms - Maturity > 3 months

(TT$ 000)

	Before CRM			Adjustments for CRM			After CRM	
Risk weight	Notional Principal Amount	Gross* exposure (credit-equiv. amount for off B/S)	Net* exposure (credit-equiv. amount for off B/S)	Redistribution of net exposure for guarantees, credit derivatives	Redistribution of net exposure for collateral (simple approach)	Adjustment to net exposure for collateral (comprehensive approach)	Net exposure	Risk-weighted Assets
(a)			(b)	(c)	(d)	(e)	(f = b+c+d+e)	(g = a x f)
Repo-style Transactions								
20%							0 $	0 $
50%		1 000 $	1 000 $			(880 $)	120 $	60 $
100%							0 $	0 $
150%							0 $	0 $
Total		1 000 $	1 000 $	Note **	Note **	(880 $)	120 $	0 $
Total		1 000 $	1 000 $					60 $

* Gross means gross of all allowances for credit loss. Net is gross less individual allowances.

** Must sum to zero.

3. Security borrowing/ lending transaction (SBL) between the sovereign and Bank C

NO MNA, NO Currency mismatch	
Transaction Type	**SBL**
Collateral	**Bond C**
Current Value of Collateral (C)	1000
Haircut Hc	**6%**
Value after haircut C x (1 - H_c)	**940**
Exposure	**Bond B**
Current Value of Exposure (E)	1000
Haircut H_e	**4%**
Value after haircut E x (1 + H_e)	**1080**

E* = max (0, [E x (1 + He) - C x (1 - Hc)])

E* = max (0, [1000 x (1 + 4%) - 1000 x (1 - 6%)])

E* = 100

This will be reported as follows :

Schedule 8 - Standardized Approach - credit risk-weighted assets

Return to Schedule Listing

For Banking Book - Bank & Securities Firms - Maturity > 3 months

(TT$ 000)

	Before CRM			Adjustments for CRM			After CRM	
Risk weight	Notional Principal Amount	Gross* exposure (credit-equiv. amount for off B/S)	Net* exposure (credit-equiv. amount for off B/S)	Redistribution of net exposure for guarantees, credit derivatives	Redistribution of net exposure for collateral (simple approach)	Adjustment to net exposure for collateral (comprehensive approach)	Net exposure	Risk-weighted Assets
(a)			(b)	(c)	(d)	(e)	(f = b+c+d+e)	(g = a x f)
Repo-style Transactions								
20%							0 $	0 $
50%		1 040 $	1 040 $			(940 $)	100 $	50 $
100%							0 $	0 $
150%							0 $	0 $
Total		1 040 $	1 040 $	Note **	Note **	(940 $)	100 $	0 $
Total		1 040 $	1 040 $					50 $

* Gross means gross of all allowances for credit loss. Net is gross less individual allowances.

** Must sum to zero.

4. Repos transaction with Bank A where there is a currency mismatch (Hfx)

The Haircut for Currency mismatch (H_{fx}) = 8%. The haircut H_{fx} is applied to the collateral.

NO MNA, Currency mismatch	
Transaction Type	**Repo**
Collateral	**Cash**
Current Value of Collateral (C)	1000
Haircut H_c	**0%**
Currency	**CAD**
Haircut H_{fx}	**8%**
Value after haircut C x (1 - H_c-H_{fx})	**800**
Exposure	**Bond A**
Current Value of Exposure (E)	1000
Haircut H_e	**12%**
Value after haircut E x (1 + H_e)	**1120**
Currency	**USD**

E* = max (0, [E x (1 + He) - C x (1 - Hc - Hfx)])

E* = max (0, [1000 x (1 + 12%) - 1000 x (1 - 0% - 8%)])

E* = 200

This will be reported as follows:

Schedule 8 - Standardized Approach - credit risk-weighted assets

Return to Schedule Listing

For Banking Book - Bank & Securities Firms - Maturity > 3 months

(TT$ 000)

Risk weight (a)	Notional Principal Amount	Before CRM: Gross* exposure (credit-equiv. amount for off B/S)	Before CRM: Net* exposure (credit-equiv. amount for off B/S) (b)	Adjustments for CRM: Redistribution of net exposure for guarantees, credit derivatives (c)	Adjustments for CRM: Redistribution of net exposure for collateral (simple approach) (d)	Adjustments for CRM: Adjustment to net exposure for collateral (comprehensive approach) (e)	After CRM: Net exposure (f = b+c+d+e)	Risk-weighted Assets (g = a x f)
Repo-style Transactions								
20%							0 $	0 $
50%		1 120 $	1 120 $			(920 $)	200 $	100 $
100%							0 $	0 $
150%							0 $	0 $
Total		1 120 $	1 120 $	Note **	Note **	(920 $)	200 $	0 $
Total		1 120 $	1 120 $					100 $

* Gross means gross of all allowances for credit loss. Net is gross less individual allowances.

5. Reverse repos transaction with currency mismatch (Hfx)

NO MNA, Currency mismatch	
Transaction Type	**Reverse Repo**
Collateral	**Bond A**
Current Value of Collateral (C)	**1000**
Haircut H_c	**12%**
Haircut H_{fx}	**8%**
Value after haircut C x (1 - H_c- H_{fx})	**800**
Exposure	**Cash**
Current Value of Exposure (E)	1000
Haircut H_e	**0%**
Value after haircut E x (1 + H_e)	**1000**
Currency	**USD**

E* = max (0, [E x (1 + He) - C x (1 - Hc - Hfx)])

E* = max (0, [1000 x (1 + 0%) - 1000 x (1 - 12%-8%)])

E* = 200

This is to be reported as:

Schedule 8 - Standardized Approach - credit risk-weighted assets

Return to Schedule Listing

For Banking Book - Bank & Securities Firms - Maturity > 3 months

(TT$ 000)

	Before CRM			Adjustments for CRM			After CRM	
Risk weight	Notional Principal Amount	Gross* exposure (credit-equiv. amount for off B/S)	Net* exposure (credit-equiv. amount for off B/S)	Redistribution of net exposure for guarantees, credit derivatives	Redistribution of net exposure for collateral (simple approach)	Adjustment to net exposure for collateral (comprehensive approach)	Net exposure	Risk-weighted Assets
(a)			(b)	(c)	(d)	(e)	(f = b+c+d+e)	(g = a x f)
Repo-style Transactions								
20%							0 $	0 $
50%		1 000 $	1 000 $			(960 $)	40 $	20 $
100%							0 $	0 $
150%							0 $	0 $
Total		1 000 $	1 000 $	Note **	Note **	(960 $)	40 $	0 $
Total		1 000 $	1 000 $					20 $

* Gross means gross of all allowances for credit loss. Net is gross less individual allowances.

** Must sum to zero.

6. Security borrowing lending transaction (SBL) with currency mismatch (Hfx)

NO MNA, Currency mismatch	
Transaction Type	**SBL**
Collateral	**Bond C**
Current Value of Collateral (C)	**1000**
Haircut Hc	**6%**
Value after haircut C x (1 - H_c- H_{fx})	**860**
Exposure	**Bond B**
Current Value of Exposure (E)	1000
Haircut H_e	**4%**
Value after haircut E x (1 + H_e)	**1040**
Currency	**USD**

E* = max (0, [E x (1 + He) - C x (1 - Hc - Hfx)])

E* = max (0, [1000 x (1 + 4%) - 1000 x (1 - 6%-8%)])

E* = 180

This will be reported as follows:

Schedule 8 - Standardized Approach - credit risk-weighted assets

Return to Schedule Listing

For Banking Book - Bank & Securities Firms - Maturity > 3 months

(TT$ 000)

	Before CRM			Adjustments for CRM			After CRM	
Risk weight	Notional Principal Amount	Gross* exposure (credit-equiv. amount for off B/S)	Net* exposure (credit-equiv. amount for off B/S)	Redistribution of net exposure for guarantees, credit derivatives	Redistribution of net exposure for collateral (simple approach)	Adjustment to net exposure for collateral (comprehensive approach)	Net exposure	Risk-weighted Assets
(a)			(b)	(c)	(d)	(e)	(f = b+c+d+e)	(g = a x f)
Repo-style Transactions								
20%							0 $	0 $
50%		1 040 $	1 040 $			(860 $)	180 $	90 $
100%							0 $	0 $
150%							0 $	0 $
Total		1 040 $	1 040 $	Note **	Note **	(860 $)	180 $	0 $
Total		1 040 $	1 040 $					90 $

* Gross means gross of all allowances for credit loss. Net is gross less individual allowances.

** Must sum to zero.

APPENDIX 2 - Adjustments of the Supervisory Haircuts for Different Holding Periods under the Comprehensive Approach for Collateral

Consider an AA rated corporate debt security with a residual maturity of 3 years where there is a 20 day holding period.

The standard supervisory haircut applicable (prior to adjustment for the differing holding period) is 4%.

However, where the holding is different from the standard 10 day, adjustment of the haircut should be made using the following formula:

$$\mathbf{H_M = H_{10} \sqrt{T_M / T_N}}$$

where:

$\mathbf{H_M}$ = *haircut under the minimum holding period*

$\mathbf{H_N}$ = *haircut based on the holding period TN*

$\mathbf{T_N}$ = *minimum holding period for the type of transaction*

$\mathbf{T_M}$ = *holding period used by the Bank for deriving* $\mathbf{H_N}$

The haircut to be applied to the exposure would be determined as follows:

$H_{20} = H10 \times \sqrt{20/10}$

$H_{20} = 4 \times \sqrt{20/10}$

$\mathbf{H_{20} = 5.66\%}$

APPENDIX 3-Example Of The Calculation Of The Credit Equivalent Amounts

Current Exposure Method

COUNTERPARTY ABC INC.									
Contract **(a)**	**Notional** **(b)**	**Net Replacement Cost (MTM)** **(c)**	**Residual Maturity (years)** **(d)**	**Contract type** **(e)**	**Maturity Bucket** **(f)**	**Add-on factor (%)** **(g)**	**Add-on (A_{GROSS}) ($)** **(h) = (b) x (g)**	**Positive (Gross) Replacement Cost (+MTM)** **(i)**	**Credit Equivalent Amount (CEA)** **(j) = (h) + (i)**
1	100,000	100	0.5	Interest Rate	Less than 1 year	0.00%	0	100.00	100.00
2	50,000	-200	2	FX & Gold	Between 1 and 5 years	5.00%	2,500	0.00	2,500.00
3	120,000	700	4.3	Equity	Between 1 and 5 years	8.00%	9,600	700.00	10,300.00
4	80,000	500	6	Precious Metals	Greater than 5 years	8.00%	6,400	500.00	6,900.00
5	70,000	-400	3	Other Commodities	Between 1 and 5 years	12.00%	8,400	0.00	8,400.00
TOTAL		**700**					**26,900**	**1300**	**28,200**

If a single master netting agreement (MNA) was in place for the above five (5) contracts:

CEA= Net replacement cost + $\mathbf{A_{NET}}$

$\mathbf{A_{NET}}$ =0.4 * A_{GROSS} + 0.6 * A_{GROSS} * NGR

$\mathbf{A_{GROSS}}$= sum of all add-on amounts in MNA= 26,900

Net replacement cost= max (0, sum of MTM values in arrangement) =700

$\mathbf{A_{NET}}$ = 19450.77 w**here the NGR=** $\sum NR/\sum(+MTM)=700/1300$

CEA= Net replacement cost + $\mathbf{A_{NET}}$ **= 19450.77+700=20150.77**

Total CEA for contracts (without a MNA)

APPENDIX 4-Illustrative Worksheet for The Calculation Of Credit Equivalent Amounts For Non-Netted Derivative Transactions

	Notional Principal amount (a)	**Positive Replacement Cost (MTM[17]) (b)**	**Add-On Factor (%) (c)**	**Potential Future Credit Exposure (a) x (c)**	**Credit Equivalent (b) x (c) = (d)**	**Risk Weight**
Interest Rate Contracts						
One year or less			*0.0*			*0*
			0.0			*20*
			0.0			*50*
			0.0			*100*
			0.0			*150*
Over one year to five years			*0.5*			*0*
			0.5			*20*
			0.5			*50*
			0.5			*100*
			0.5			*150*
Over five years			*1.5*			*0*
			1.5			*20*
			1.5			*50*
			1.5			*100*
			1.5			*150*
Foreign Exchange Contracts and Gold Contracts						
One year or less			*1.0*			*0*
			1.0			*20*
			1.0			*50*
			1.0			*100*
			1.0			*150*
Over one year to five years			*5.0*			*0*
			5.0			*20*
			5.0			*50*
			5.0			*100*
			5.0			*150*
Over five years			*7.5*			*0*
			7.5			*20*
			7.5			*50*
			7.5			*100*
			7.5			*150*
Equity Contracts						
One year or less			*6.0*			*0*
			6.0			*20*
			6.0			*50*

			6.0			*100*
			6.0			*150*
Over one year to five years			*8.0*			*0*
			8.0			*20*
			8.0			*50*
			8.0			*100*
			8.0			*150*
Over five years			*10.0*			*0*
			10.0			*20*
			10.0			*50*
			10.0			*100*
			10.0			*150*
Precious Metals Except Gold Contracts						
One year or less			*7.0*			*0*
			7.0			*20*
			7.0			*50*
			7.0			*100*
			7.0			*150*
Over one year to five years			*7.0*			*0*
			7.0			*20*
			7.0			*50*
			7.0			*100*
			7.0			*150*
Over five years			*8.0*			*0*
			8.0			*20*
			8.0			*50*
			8.0			*100*
			8.0			*150*
"Other Commodities" Contracts						
One year or less			*10.0*			*0*
			10.0			*20*
			10.0			*50*
			10.0			*100*
			10.0			*150*
Over one year to five years			*12.0*			*0*
			12.0			*20*
			12.0			*50*
			12.0			*100*
			12.0			*150*
			15.0			*0*

17 Marked to Market

Over five years			*15.0*			*20*
			15.0			*50*
			15.0			*100*
			15.0			*150*

APPENDIX 5-Example for the Calculation Of The Aggregate NGR

	Counterparty 1		**Counterparty 2**		**Counterparty 2**	
Contract	**Notional Amount**	**Replacement Cost**	**Notional Amount**	**Replacement Cost**	**Notional Amount**	**Replacement Cost**
Contract 1	100	10	50	8	30	-3
Contract 2	100	-5	50	2	30	1
Positive Replacement Cost (+MTM)		10		10		1
Net Replacement Cost (NR)		5		10		0
NGR (per counterparty)	5/10 = 0.5		10/10=1		0/1=0	
NGR (aggregate)	∑NR/∑(+MTM)=15/21 = 0.71					

APPENDIX 6 –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 licensee considers that the obligor is unlikely to pay its credit obligations to the banking group in full, without recourse by the licensee 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.[18] 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 unlikeliness to pay include:
    - The licensee puts the credit obligation on non-accrued status.
    - The licensee makes a charge-off or account-specific provision resulting from a significant perceived decline in credit quality subsequent to the licensee taking on the exposure.
    - The licensee sells the credit obligation at a material credit-related economic loss.
    - The licensee 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 licensee 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 licensee to treat all other obligations to the banking group as defaulted.

Re-ageing

1. A licensee 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.

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.

18 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 licensees to corporates; this applies for a transitional period of 5 years.

Treatment of Overdrafts

1. Authorized overdrafts must be subject to a credit limit set by the licensee 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. Licensees must have in place rigorous internal policies for assessing the creditworthiness of customers who are offered overdraft accounts.

APPENDIX 7 –Credit Risk Mitigation-Examples of Calculations

1. Application Of The Comprehensive Approach For Collateral

Consider a loan of $1000 to a corporate entity rated BBB, collateralized with $500 AA rated GORTT bond with a residual maturity of 3 years

Where collateral is applied to an exposure under the comprehensive approach, the exposure is to be adjusted using the formula: E* = max (0, [E x (1 + He) – C x (1 – Hc – Hfx)])

where

E = the exposure value after risk mitigation*

E = current value of the exposure

He = haircut appropriate to the exposure

C = the current value of the collateral received

Hc = haircut appropriate to the collateral

Hfx = haircut appropriate for currency mismatch between the collateral and exposure.

E* = 1000 – {500 x (1 – 0.02)}[19]

E* = $1000 - $500 x (1-0.02) = $510

Given that the corporate entity is rated BBB, the risk weighted assets will be calculated $510 x 100% = $510

2. Adjustments of the Supervisory Haircuts for Different Holding Periods under the Comprehensive Approach for Collateral

Consider an AA rated corporate debt security with a residual maturity of 3 years where there is a 20 day holding period.

The standard supervisory haircut applicable (prior to adjustment for the differing holding period) is 4%.

However, where the holding is different from the standard 10 day, adjustment of the haircut should be made using the following formula:

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

where:

$\mathbf{H_M}$ = *haircut under the minimum holding period*

$\mathbf{H_N}$ = *haircut based on the holding period TN*

$\mathbf{T_N}$ = *minimum holding period for the type of transaction*

$\mathbf{T_M}$ = *holding period used by the Bank for deriving* $\mathbf{H_N}$

The haircut to be applied to the exposure would be determined as follows:

$H_{20} = H_{10} \times \sqrt{20/10}$

$H_{20} = 4 \times \sqrt{20/10}$

$H_{20} = 5.66\%$

19 There is no currency mismatch between the collateral and the exposure and the supervisory haircut of 2% is applied to the exposure. No haircut is need for the exposure as it is cash.