

# Financial Institutions (Capital Adequacy) Regulations 2018

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Legal Notice No.

REPUBLIC OF TRINIDAD AND TOBAGO

**THE FINANCIAL INSTITUTIONS ACT, 79:09**  
**REGULATIONS**

Made by the Minister under section 9 (1) of the Financial Institutions Act Chap. 79:09 and  
subject to negative resolution of Parliament

**THE FINANCIAL INSTITUTIONS (CAPITAL ADEQUACY) REGULATIONS, 2018**

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|-------------------------------|---|
| Citation                      | 1. These Regulations may be cited as the Financial Institutions (Capital Adequacy) Regulations, 2018.   |
| Commencement                  | 2. Regulations 6 and 7 shall come into force on such date as the Minister may by notice in the <i>Gazette</i> appoint.  |
| Interpretation<br>Chap. 79:09 | 3. In these Regulations –<br><br>“Act” means the Financial Institutions Act, Chap.79:09;<br><br>“asset backed commercial paper program” means a program that 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 vehicle;<br><br>“clean-up call” means an option that permits the securitization exposures to be called before all of the underlying exposures or securitization exposures have been repaid;<br><br>“credit-enhancing interest-only strip” means an on-balance sheet asset that:-<br><ul style="list-style-type: none"><li>(a) represents a valuation of cash flows related to future margin income;</li><li>and</li><li>(b) is subordinated;</li></ul><br>“credit enhancement” means a contractual arrangement in which the financial |

organization retains or assumes a securitization exposure and provides some degree of added protection to other parties to the transaction;

“credit rating” means- an opinion or assessment of the creditworthiness of an entity, a credit commitment, a debt-like security or an issuer of such obligations, expressed using the Standard and Poor’s or equivalent ratings as specified by the Central Bank in a guideline ;

“credit rating agency” means an external credit rating agency that is deemed to be eligible for the determination of capital charges by the Central Bank in accordance with a guideline issued by the Central Bank;

“Credit risk” means the potential that a counterparty will fail to meet its obligations in accordance with agreed terms;

“currency mismatch” means a transaction in which the credit protection is denominated in a currency different from that in which the exposure is denominated;

“delivery versus payment” means a settlement system that stipulates that cash payment be made prior to or simultaneously with the delivery of the security and includes payment versus payment transactions;

“early amortization” means a mechanism that, once triggered, allows investors to be paid out prior to the originally stated maturity of the securities issued;

“excess spread” means gross finance charge collections and other income received by a trust or special purpose vehicle minus certificate interest, servicing fees, charge-offs, and other senior trust or special purpose vehicle expenses;

“financial organization” means a licensee or financial holding company doing solely the business for which it has obtained a license or permit to do under the Act;

“gain on sale” means any increase in equity capital resulting from a securitization transaction;

“guideline” means a guideline made under section 10 of the Act;

“implicit support” means an arrangement through which a financial organization provides support to a securitization in excess of its predetermined contractual obligation;

“liquidity facility” means a contractual agreement pursuant to which the financial organization provides funding in respect of a securitization transaction to ensure the timeliness of cash flows to investors in the securitization issues in the transaction;

“market risk” means the risk of losses in on and off-balance sheet positions arising from adverse movements in market prices.

“maturity mismatch” means a transaction structure in which the residual maturity of the hedge is less than that of the underlying exposure;

“non-delivery versus payment” means a system where cash paid is without receipt of the corresponding receivable or, conversely, deliverables are delivered without receipt of the corresponding cash payment;

“operational risk” means the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

“originator” means a financial organization with regard to a securitization where-

- (a) the financial organization originates directly or indirectly underlying exposures included in the securitization; or
- (b) the financial organization acts as a sponsor of an asset backed commercial paper conduit or similar programme that acquires exposures from third party entities such that in fact or in substance, it manages or advises the program, places securities into the market, or provides liquidity and credit enhancements;

“overlapping facilities” means the provision of several types of facilities by a financial organization that can be drawn under various conditions whereby the same

financial organization may be providing two or more of these facilities thereby creating a scenario where the financial organization provides duplicative coverage to the underlying exposures;

“payment versus payment” means a mechanism in a foreign exchange settlement system to ensure that a final transfer of one currency occurs only if a final transfer of the other currency or currencies also takes place;

“regulatory capital” means an amount of capital determined under regulation 9;

“repo style transaction” means a repurchase agreement or a reverse repurchase agreement;

“repurchase agreement” means the sale of a security with a commitment by the seller to buy the same or equivalent security back from the purchaser at a specified price and at a designated date in the future;

“reverse repurchase agreement” means the purchase of a security with a commitment by the buyer to re-sell the security to the seller at a future date at a fixed price;

“risk weighted assets” means the aggregate of-

- (a) risk weighted assets for credit risk determined in accordance with Schedule 2 of these Regulations;
- (b) the capital charge for operational risk determined in accordance with Schedule 3 of these Regulations multiplied by ten; and
- (c) the capital charge for market risk determined in accordance with Schedule 4 of these Regulations multiplied by ten;

“securities financing transactions” means transactions including but not limited to 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;

“securitization exposures” means an exposure arising from a traditional securitization or synthetic securitization including-

- (a) asset-backed securities including certificate of participation, mortgage-backed securities, credit enhancements, liquidity facilities, interest rate or currency swaps, credit derivatives, tranching, reserve accounts recorded as an asset by the originator, servicer cash advance facilities and obligations to acquire an investor’s interest in the underlying exposures of the transaction if the transaction is subject to an early amortization provision; or
- (b) transactions which the Central Bank determines should be classified as a securitization exposure based on the economic substance;

“special purpose vehicle” means 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 special purpose vehicle, and the structure of which is intended to isolate the special purpose vehicle from the credit risk of an originator or seller of exposures;

“synthetic securitization” means 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 or unfunded credit derivatives or guarantees that serve to hedge the credit risk of the portfolio;

“traditional securitization” means 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 and where 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;

- Application 4. In accordance with section 9(4) of the Act these Regulations shall apply-
- (a) to a licensee on an individual basis and on a consolidated basis to include where applicable all domestic and foreign
    - (i) subsidiaries of the licensee; or
    - (ii) companies in which the licensee is a significant shareholder; and
  - (b) on a consolidated basis, to a financial holding company and all the domestic and foreign members of the financial group that the financial holding company controls.
- Pillar I minimum capital requirements 5. (1) Every financial organization shall:
- (a) maintain on an individual and consolidated basis in accordance with regulation 4-
    - (i) a minimum common equity tier 1 capital ratio of four and a half per cent;
    - (ii) a minimum tier 1 capital ratio of seven per cent;
    - (iii) a minimum capital adequacy ratio of ten per cent; and
  - (b) comply with sections 16, 17 and any capital adequacy conditions imposed under section 70(4) of the Act.
- (2) For the purposes of section 63(1) of the Act, the minimum capital adequacy requirement for a financial organization shall be seven per cent.
- Pillar II 6. (1) Every financial organization shall have in place an internal capital adequacy assessment process as set out in a guideline issued by the Central Bank that is proportional to their nature, scale, complexity and business strategy.
- (2) Every financial organization shall-
- (a) document the internal capital adequacy assessment process which must be approved by the board of directors and updated at least once a year or more frequently as may be required to take account of changes in the business, strategy, nature, scale or complexity of activities or operational environment; and

(b) submit the internal capital adequacy assessment process to the Central Bank within four months of its financial year end.

(3) After review of the internal capital adequacy assessment process, the Central Bank may impose a target capital adequacy ratio on the financial organization that is higher than the minimum capital ratios set out in Regulation 5.

(4) Notwithstanding regulation 6(3) based on its ongoing risk assessment of the financial organization the Central Bank may impose a capital adequacy ratio on a financial organization that is higher than the capital ratios set out in Regulation 5.

Pillar III 7. Financial organizations shall disclose such information pertaining to their capital, risk exposures, risk assessment processes, credit risk mitigation and capital adequacy in such time, form, manner and frequency as the Central Bank may specify in a guideline.

Capital Adequacy Ratios 8. The minimum common equity tier 1 capital ratio, tier 1 capital ratio and capital adequacy ratio shall be calculated in the manner specified in Schedule 1.

Regulatory Capital 9. Regulatory capital shall be the sum of tier 1 and tier 2 capital, as calculated in accordance with regulations 10 and 11, subject to the deductions stated in regulation 12 and the limits and restrictions stated in regulation 13.

Tier 1 Capital 10. (1) Tier 1 capital shall comprise-

- (a) common equity tier 1 capital; and
- (b) fully paid perpetual non-cumulative preference shares and related surplus.

(2) For the purpose of these Regulations, common equity tier 1 capital shall comprise-

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- (a) fully paid issued ordinary share capital and related surplus;
- (b) the statutory reserve fund of the licensee referred to in section 56 of the



Act;

- (c) capital reserves excluding asset revaluation reserves;
- (d) general reserves excluding those for losses on assets;
- (e) retained earnings as stated at the end of the last financial year in the audited financial statements of the financial organization; and
- (f) retained earnings as stated in audited interim financial statements of the financial organization.

Tier 2 Capital 11. For the purposes of these Regulations tier 2 capital shall comprise-

- (a) fully paid issued perpetual cumulative preference shares in respect of which the issuer has no right to defer or eliminate preferred dividends;
- (b) limited life preference shares which are redeemable at the end of a stated period and the original maturity of which is not less than five years;
- (c) bonus shares issued from capitalization of asset revaluation reserves, being equity created from unrealized gains which resulted from the revaluation of real estate property or other fixed assets as stated in sub-regulation (f)(ii);
- (d) capital instruments which are essentially permanent in nature and consist of a combination of equity and debt;
- (e) term debt which is subordinated to general creditors and claims of depositors and which has an original maturity of no less than five years;
- (f) asset revaluation reserves arising from-
  - (i) the formal restatement of the balance sheet; or
  - (ii) the revaluation of real estate or other fixed assets ascertained as at a balance sheet date and supported by an independent professional valuation conducted within one year before or three months after that balance sheet date;
- (g) undivided profits of the current year that are unaudited, and whether or not publicly disclosed;
- (h) general reserves or provisions for losses on assets, as follows-

- (i) reserves set aside for future unidentified losses on assets, which reserves are normally reported as part of shareholders' equity; and
- (ii) general provisions, or other provisions in such manner and quantities as the Central Bank may specify, that have been created for unidentified losses and form part of the accumulated provision account, but excluding specific reserves and provisions created against unidentified losses

Deductions      12.      (1) Tier 1 capital shall be reduced by the following-

- (a) losses made by the financial organization in its current year of operation that are audited or unaudited and whether or not publicly disclosed;
- (b) bonus shares that have been issued from capitalization of asset revaluation reserves;
- (c) intangible assets, including goodwill arising from the acquisition of assets and capitalized preliminary expenses;
- (d) gain on sale resulting from a securitization transaction; and
- (e) fifty per cent of each of the following:-
  - (i) unsettled non-delivery versus payment trades which are five days or more late;
  - (ii) credit enhancing interest only strips net of gain on sale;
  - (iii) investor securitization exposure assigned a credit rating of BB+ and below by a credit rating agency;
  - (iv) originator securitization exposure assigned a credit rating below investment grade by a credit rating agency;
  - (v) unrated securitization exposure subject to the following exceptions-
    - (a) eligible liquidity facilities;
    - (b) the most senior exposure in a securitization;
    - (c) exposures that are in a second loss position or better in asset backed commercial paper programmes and meet the following

requirements-

- (i) 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;
- (ii) the associated credit risk is the equivalent of investment grade or better; and
- (iii) the financial organization holding the unrated securitization exposure does not retain or provide the first loss position.

(2) Deductions (a) to (c) of regulation 12(1) shall be made specifically from common equity tier 1 capital.

(3) Fifty per cent of each of the following shall be deducted from tier 2 capital-

- (a) unsettled non-delivery versus payment trades which are five days or more late;
- (b) credit enhancing interest only certificates of participation net of gain on sale;
- (c) investor securitization exposure assigned a credit rating of BB+ and below by a credit rating agency;
- (d) originator securitization exposure assigned a credit rating below investment grade by a credit rating agency; and
- (e) unrated securitization exposure subject to the following exceptions-

(i) eligible liquidity facilities;

(ii) the most senior exposure in a

securitization;

(iii) exposures that are in a second loss

position or better in asset backed

commercial paper programmes and

meet 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 financial organization holding the unrated securitization exposure does not retain or provide the first loss position.

Limits and 13.

Restrictions on

Regulatory

Capital

For the purposes of these Regulations, regulatory capital shall be subject to the following limits and restrictions –

- (a) tier 1 capital shall not be less than fifty per cent of regulatory capital;
- (b) the aggregate of limited life redeemable preference shares referred to in regulation 11 (b) and subordinated term debt referred to in regulation 11(e) shall not exceed fifty per cent of tier 1 capital;
- (c) limited life redeemable preference shares and subordinated term debt are discounted by twenty per cent of the last five years before maturity;
- (d) general provisions and reserves for losses on assets referred to in regulation 11 (h) must be limited to a maximum of 1.25 per cent of risk weighted assets; and
- (e) asset revaluation reserves shall not exceed twenty per cent of tier 1 capital.

- Credit Risk 14. (1) In determining their minimum capital requirements referred to in regulation 5 every financial organization shall calculate the capital required to be maintained for the credit risk to which they are exposed.
- (2) Capital required for credit risk shall be calculated in the manner specified in Schedule 2.
- Operational Risk 15. (1) In determining their minimum capital requirements referred to in regulation 5 every financial organization shall calculate capital for the operational risk to which they are exposed.
- (2) Capital required for operational risk shall be calculated in the manner specified in Schedule 3.
- Market Risk 16. (1) In determining their minimum capital requirements referred to in regulation 5 every financial organization shall calculate capital for the market risk to which they are exposed.
- (2) Capital required for market risk, shall be calculated in the manner specified in Schedule 4.

## SCHEDULE 1 (Regulation 5)

### Minimum Capital Ratios

i. Capital Adequacy Ratio	$\frac{\text{Regulatory Capital}}{\text{Risk Weighted Assets (Credit + Operational + Market)}} =$	10%
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ii. Tier 1 Capital Ratio	$\frac{\text{Tier 1 Capital}}{\text{Risk Weighted Assets (Credit + Operational + Market)}} =$	7%
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iii. Common Equity Tier 1 Capital Ratio	$\frac{\text{Common Equity Tier 1 Capital}}{\text{Risk Weighted Assets (Credit + Operational + Market)}} =$	4.5%
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## **SCHEDULE 2 (Regulation 14)**

### **Provisions for the Calculation of Capital Charges for Credit Risk**

Interpretation

#### 1. In this Schedule –

“aggregated exposure” means the gross amount, not taking any credit risk mitigation into account, of all forms of debt exposures that individually satisfy the criteria for inclusion in the regulatory retail portfolio;

“bank” means-

(a) An incorporated entity that is:

(i) licensed by the Central Bank to carry on the business of banking pursuant to section 16 of the Act; or

(ii) licensed by the Central Bank to carry on business of a financial nature pursuant to section 17 of the Act; and

an incorporated entity in foreign jurisdictions that meets the definition of a bank for the purposes of the banking capital adequacy regulations in the jurisdiction of incorporation;

“commercial real estate” means commercial property including office buildings, retail spaces, multipurpose commercial premises, multi-family residential property, multi-tenanted commercial premises, industrial or warehouse space, hotels and credit facilities incurred for land acquisition or development and construction;

“corporates” means incorporated bodies wherever and however incorporated, other than quasi corporations which exercise some of the functions of an incorporated body, but have not been granted separate legal personality by statute, and unincorporated bodies that are not small business entities. Venture capital, private equity investments and banks shall not be treated as corporates;

“counterparty” means a party to whom a financial organization has an on- or off-balance sheet credit exposure or a potential credit exposure;

“guarantee” means guarantee and counter guarantee;

“loan to value ratio” means the ratio of money borrowed to the appraised value of collateral;

“multilateral development bank” means means a supranational institution chartered by two or more countries for the purpose of providing financial support and professional advice for economic and social development activities in developing countries;

“private equity investment” means an investment which at the time the investment is made is-

- (a) in a new or developing unincorporated body or venture;
- (b) in a management buy-out or buy-in;
- (c) made as a means of financing the investee unincorporated body 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).

“public sector entity” means-

- (a) state government;
- (b) local government;
- (c) other government bodies including-
  - (i) public utilities;
  - (ii) statutory boards;
  - (iii) state owned non-financial institutions; or
  - (iv) state owned other financial institutions;

“qualified valuator” means a person who

- (a) is a fellow or professional associate of the Royal Institution of Chartered Surveyors or a fellow or associate of the Incorporated Society of Valuers and Auctioneers or the Rating and Valuation Association and has knowledge and experience in the valuation of land; or
- (b) is approved for the time being by the Central Bank for the purpose of these Regulations;

“securities” means a security as defined in the Securities Act Chap. 83:02;

“securities firm” means entities in Trinidad and Tobago that are:

- (i) licensed under the Securities Act Chap. 83:02; and
- (ii) entities in foreign jurisdictions that meet the definition of a security firm in the legislation that governs the activities of securities in that jurisdiction;

“small business entity” means an unincorporated body whose-



- (a) number of employees does not exceed twenty five persons;
- (b) asset value is less than five million Trinidad and Tobago dollars; and
- (c) turnover in sales does not exceed ten million Trinidad and Tobago dollars;

“venture capital investment” has the same meaning as a private equity investment.

- Risk weight** 2. Risk weights shall be applied to all on-balance sheet and off-balance sheet exposures.
- On and Off balance sheet exposures** 3. On-balance sheet exposures shall be multiplied by the appropriate risk weight to determine the risk-weighted asset amount, while off-balance sheet exposures shall be multiplied by the appropriate credit conversion factor, as directed under paragraph 17(2), before the application of the respective risk weights.
- Risk weighting** 4. Exposures are to be risk weighted net of specific provisions and partial write-offs.

**Part I - Provisions for risk weighting of credit exposures**

- On-Balance Sheet Exposures Claims on Sovereigns** 5. (1) Claims on sovereigns and their central banks shall be risk weighted based on the credit rating of the sovereign as follows:

<b>Credit Rating of Sovereign</b>	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
<b>Risk Weight</b>	0%	20%	50%	100%	150%	100%

- (2) Claims on the Government of Trinidad and Tobago or the Central Bank which are both denominated and funded in Trinidad and Tobago dollars shall be risk weighted at 0 per cent.
- (3) The 0 per cent risk weight shall 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 shall satisfy the criteria set out under Part II of this Schedule.

(4) Claims on foreign sovereigns may be assigned the preferential risk weight applied by the foreign jurisdiction where the exposure is funded and denominated in the currency of that jurisdiction.

(5) A 0 per cent risk weight shall apply to claims on the Bank for International Settlements and the International Monetary Fund and other similar type agencies as may be advised by the Central Bank.

**Claims on  
Non-Central  
Government  
Public Sector  
Entities**

6. (1) Claims on public sector entities shall be assigned a risk weight that is one category higher than the risk weight for the sovereign as follows:

<b>Credit Rating of Sovereign</b>	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
<b>Sovereign Risk Weight</b>	0%	20%	50%	100%	150%	100%
<b>Public Sector Entity Risk Weight</b>	20%	50%	100%	100%	150%	100%

(2) A risk weight of 20 per cent shall apply to claims on public sector entities in Trinidad and Tobago which are both funded and denominated in Trinidad and Tobago Dollars.

**Claims on  
Multilateral  
Development  
Banks**

7. (1) Claims of the following multilateral development banks shall be risk weighted at 0 per cent:

- (a) World Bank Group comprising the International Bank for Reconstruction and Development and the International Finance Corporation;
- (b) Asian Development Bank;
- (c) African Development Bank;
- (d) European Bank for Reconstruction and Development;
- (e) Inter-American Development Bank;
- (f) European Investment Bank;
- (g) European Investment Fund;
- (h) Nordic Investment Bank;
- (i) Caribbean Development Bank;

- (j) Islamic Development Bank; and
- (k) Council of Europe Development Bank.

(2) Claims on any other multilateral development bank not referred to in paragraph 7 (1) shall be risk weighted in accordance with the table below-

<b>Credit Rating of Multilateral Development Bank</b>	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
<b>Risk Weight</b>	20%	50%	50%	100%	150%	50%

**Claims on Banks**

8. (1) Claims on banks with a maturity of more than three months shall be risk weighted based on the credit rating of the bank or the credit rating of instruments issued by the bank as follows-

<b>Credit Rating of bank/their issued instruments</b>	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
<b>Risk Weight</b>	20%	50%	50%	100%	150%	50%

(2) Where a claim on a bank has an original maturity of three months or less it shall be treated as a short term claim and shall be assigned a risk weight based on the credit rating of the bank as follows-

<b>Credit Rating of Bank</b>	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
<b>Risk Weight for Short Term Claims</b>	20%	20%	20%	50%	150%	20%

- (3) Short term claims of banks in Trinidad and Tobago that are both denominated and funded in Trinidad and Tobago dollars may be assigned a risk weight of 20 per cent.
- (4) Short term claims on banks which are rolled over or are restructured in any way, resulting in an effective maturity of longer than 3 months, shall not be risk weighted as a short term claim.

(5) Notwithstanding paragraphs 8 (1) and 8(2), no claim on an unrated bank may receive a risk weight lower than a claim on its sovereign of incorporation.

**Claims on Securities Firms**

9. (1) Claims on securities firms shall be risk weighted as claims on banks under paragraph 8 provided that these firms are subject to supervisory and regulatory arrangements including regulatory capital requirements comparable to those under these Regulations.
- (2) Where a claim on a securities firm does not meet the requirements in paragraph 9(1) such claim shall be risk weighted as claims on corporates in paragraph 10.

**Claims on Corporates**

10. (1) Claims on corporates and securities firms that do not qualify for the treatment as a bank under paragraph 8 shall be risk weighted in accordance with the credit rating of the corporate or security firm or the credit rating of instruments issued by the corporate or security firm as follows-

<b>Credit Rating of Corporates and Security Firms/their issued instruments</b>	AAA to AA-	A+ to A-	BBB+ to BB-	Below BB-	Unrated
<b>Risk Weight</b>	20%	50%	100%	150%	100%

- (2) No claim on an unrated corporate may be given a risk weight preferential to that assigned to its sovereign of incorporation.
- (3) The Central Bank may increase the standard risk weight for unrated claims to corporates where it determines that a higher risk weight is warranted by the overall default experience.
- (4) Subject to approval by the Central Bank, a financial organization may risk weight all of its corporate claims at 100 per cent without regard to external ratings and where the Central Bank grants such approval financial organizations must apply the 100 per cent risk weighting to all such claims, notwithstanding the availability of external ratings.
- (5) Notwithstanding paragraph 10 (4) after consideration of the credit quality of corporate claims held by a financial organization the Central Bank may assign a standard risk weight higher than one hundred per cent.

**Claims**

11. (1) Claims included in the regulatory retail portfolio shall be risk-weighted at 75 per cent.

**included in  
the  
Regulatory  
Retail  
Portfolios**

- (2) Claims to be included in the regulatory retail portfolio must meet the following criteria-
  - (a) exposures must be to an individual or to a small business entity;
  - (b) exposures must take 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 including installment loans, auto loans and leases, student and educational loans, personal finance; and
    - (iii) facilities and commitments to small business entities.
  - (c) sufficiently diversified to a degree that reduces the risks in the portfolio and no aggregate exposures to one counterpart or related counterparts shall exceed 0.2 per cent of the overall regulatory retail portfolio; and
  - (d) the maximum aggregated retail exposure to one counterpart must not exceed an absolute threshold of US\$1 Million or the Trinidad and Tobago Dollar equivalent.
- (4) Securities including bonds and equities, whether listed or not, and mortgage loans shall not be including in the regulatory retail portfolio.
- (5) Notwithstanding paragraph 11 (1) after consideration of the default experience for these types of exposures the Central Bank may determine that a risk weight above the 75 per cent should be applied to claims on the regulatory retail portfolio.
- (6) Where an exposure does not meet the requirements of this paragraph 11, it shall be treated as a claim on corporates.

**Claims  
secured by  
residential  
property**

- 12. (1) Residential mortgage loans where the loan is secured by the residential property shall be risk weighted at 35 per cent where-
  - (a) the property is or will be occupied by the borrower or is rented;
  - (b) the loan is not past due for more than ninety days; and
  - (c) the loan has a loan to value ratio which does not exceed 80 per cent.
- (2) Where a residential mortgage loan secured by the residential property satisfies 12(1)(a) and 12(1)(b) but-
  - (a) the loan to value ratio exceeds 80 per cent but is less than 90 per cent, a 75 per cent risk weight shall be applied; and
  - (b) the loan to value ratio exceeds 90 per cent, a 100 per cent risk weight will be applied.
- (3) Where a residential mortgage loan secured by the residential property satisfies paragraph 12(1)(a) and 12(1)(b) but the financial organization holds no loan to value information for its individual exposures, a 50 per cent risk weight shall be applied to the entire portfolio of exposures.

- (4) Where a residential mortgage loan does not satisfy the conditions set out at paragraphs 12(1), 12 (2) and 12 (3) a 100 per cent risk weight shall be applied.
- (5) Notwithstanding paragraph 12 (1) after consideration of the default experience of these types of exposures the Central Bank may determine that a risk weight above 35 per cent should be applied to residential mortgage loans secured by residential property.
- (6) For the purposes of this paragraph, a financial organization in determining the loan to value ratio shall -
  - (a) have in place a sound valuation methodology to apprise and monitor the valuation of the property;
  - (b) monitor the value of the property on a request basis and at a minimum annually for residential real estate; and
  - (c) have the property valuation reviewed by a qualified valuator when there is information regarding a decline in value of the property, including where the property may have declined materially relative to general market prices or upon default.

Claims  
secured by  
commercial  
real estate

13. Commercial Real Estate Loans shall be assigned a risk weight of 100 per cent.

Past due loans

- 14. (1) The unsecured portion of any loan other than a residential mortgage loan that meets the criteria referred to in paragraph 12 which is past due for more than ninety days, shall be risk-weighted as follows-
  - (a) 150 per cent risk weight when specific provisions are less than 20 per cent of the outstanding amount of the loan;
  - (b) 100 per cent risk weight when specific provisions are 20 per cent or more of the outstanding amount of the loan; and
  - (c) subject to the approval of the Central Bank, 50 per cent risk weight when specific provisions are no less than 50 per cent of the outstanding amount of the loan.
- (2) Financial organizations shall apply the risk weight of any eligible collateral or guarantee on the secured portion of past due loans, provided that the credit risk mitigation criteria under the Credit Risk Mitigation in Part II of this Schedule is satisfied.
- (3) Residential mortgage loans that meet the requirements of paragraph 8 and are past due for more than ninety days shall be risk weighted at-
  - (a) 100 per cent; or
  - (b) 50 per cent, where specific provisions are no less than 20 per cent of the outstanding amount of the loan.

**Higher Risk Categories**

15. (1) A risk weight of 150 per cent shall apply to venture capital and private equity investments.  
 (2) Securitization exposures of investors as referred to in paragraph 54 of Part VI of this Schedule that are assigned a credit rating between BB+ and BB- by a credit rating agency shall be risk weighted at 350 per cent.

**Other Assets**

16. 1) A 0 per cent risk weight will apply to-
- (a) cash held by the financial organization and at the Central Bank; and
  - (b) gold bullion, held in the financial organization’s vault or on an allocated basis to the extent backed by bullion liabilities.
- (2) A 20 per cent risk weight shall apply to cash items in the process of collection.
- (3) A 100 per cent risk weight shall apply to-
- (a) premises, plant, equipment and other fixed assets;
  - (b) real estate and 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 regulatory capital deduction is not required;
  - (d) unallocated prepayments and accrued interest; and
  - (e) all other assets not included elsewhere.

**Off-Balance Sheet Exposures**

17. (1) The regulatory capital treatment under this paragraph shall be applicable to all categories of off-balance sheet items including guarantees, commitments, and similar contracts whose full notional principal amount may not be reflected on the balance sheet.
- (2) Financial organizations shall convert off-balance sheet items into credit exposure equivalents through the use of the following credit conversion factors-

Off-Balance Sheet Exposure	Credit Conversion Factor
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%
ii. Commitments with an original maturity	20%

<p>up to one year.</p> <p>iii. Short-term self-liquidating trade letters of credit arising from the movement of goods such as documentary credits collateralized by the underlying shipment.</p>	
<p>i. Commitments with an original maturity exceeding one year, including underwriting commitments and commercial credit lines.</p> <p>ii. Certain transaction-related contingent items including performance bonds, bid bonds, warranties and standby letters of credit related to particular transactions.</p> <p>iii. Note issuance facilities and revolving underwriting facilities.</p>	50%
<p>i. Direct credit substitutes, such as general guarantees of indebtedness including standby letters of credit serving as financial guarantees for loans and securities 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 financial organization.</p> <p>iv. Forward asset purchases, forward deposits and partly-paid shares and securities, which represent commitments with certain drawdown.</p> <p>v. Lending of financial organization's securities or the posting of securities as collateral by financial organizations, including instances where these arise out</p>	100%



of collateralized securities financing transactions, that is, repurchase and reverse repurchase agreements and securities lending and securities borrowing transactions.	
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- (3) Where there is an undertaking to provide a commitment on an off-balance sheet item, the lower of the two applicable credit conversion factors is to be applied.
- (4) The credit equivalent amount of derivatives that expose a financial organization to counter party credit risk will be calculated in accordance with the Part IV.
- (5) For the purposes of short term self-liquidating trade letters of credit a 20 per cent credit conversion factor shall be applied to the financial organization that either issues or confirms the exposure.
- (6) The following exposures are to be risk weighted according to the type of asset and not according to the type of counterparty with whom the transaction has been entered into-
  - (a) forward asset purchases;
  - (b) forward deposits and partly-paid shares and securities which represent commitments with certain drawdown; and
  - (c) asset sales with recourse where the risk remains with the financial organization.

**Part II - Provisions for Credit Risk Mitigation**

- |   |     |   |
|---|-----|---|
| <b>Credit Risk Mitigation Framework</b> | 18. | The framework described under this Part sets out the treatment of credit risk mitigation techniques that is applicable to exposures under Part I of this Schedule.  |
| <b>Risk Mitigation Techniques</b>       | 19. | Financial organizations may use the following techniques to mitigate the credit risks to which they are exposed- <ul style="list-style-type: none"> <li>(a) exposures may be collateralized by first priority claims, in whole or in part with cash or securities;</li> <li>(b) loans owed may be netted or set off against deposits from the same counterparty;</li> <li>(c) exposures may be guaranteed by a third party; and</li> <li>(d) a credit derivative may be bought to offset various forms of credit risk.</li> </ul> |

**Minimum  
Conditions for  
the Recognition  
of Credit Risk  
Mitigation  
Techniques**

20. In order for financial organizations to obtain regulatory capital relief for use of any credit risk mitigation technique, the legal documents governing the credit risk mitigation techniques shall meet the following requirements -
- (a) all documentation used in collateralized transactions and for documenting on-balance sheet netting or setting-off and guarantees shall be binding on all parties and legally enforceable in all relevant jurisdictions;
  - (b) financial organizations must have conducted sufficient legal review to verify the matters in paragraph 20(a) and have basis, with which the Central Bank agrees, to determine that they meet the standards contained in paragraph 20(a).
  - (c) financial organizations must undertake further reviews at least annually or at such times that there is a change or potential change to the documentation, to ensure continuing enforceability of the documentation.

**General  
Considerations**

21. (1) Financial organizations shall employ robust procedures and processes to control the risks arising from the use of credit risk mitigation techniques including strategy, consideration of the underlying credit, valuation, policies and procedures, systems, control of roll-off risks and management of concentration risk and its interaction with the overall credit risk profile of the financial organization.
- (2) Where the Central Bank is not satisfied that the risks arising from the use of credit risk mitigation techniques are adequately controlled, it may impose additional capital charges and disallow the use of credit risk mitigation techniques.
- (3) The Central Bank will not grant any additional supervisory recognition of credit risk mitigation for the purposes of regulatory capital requirements on claims for which an issue-specific rating assigned by a credit rating agency is used that already reflects that credit risk mitigation.

**Collateralization**

22. (1) A collateralized transaction occurs where-
- (a) a financial organization has 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 counterparty or by a third party on behalf

of the counterparty.

- (2) Where a financial organization takes eligible financial collateral including cash or securities as referred to in paragraphs 31 and 32 they may reduce their credit exposure to a counterparty when calculating their regulatory capital requirements to take account of the risk mitigating effect of the collateral.
- (3) A capital charge shall be applied to financial organizations on either side of the following collateralized transactions -
  - (a) a repurchase or a reverse repurchase agreement transaction;
  - (b) securities lending and borrowing transactions; and
  - (c) posting of securities in connection with a derivative exposure or other borrowing.
- (4) Where a financial organization, acts as an agent or arranges a repo-style transaction between a customer and a third party, and provides a guarantee to the customer that the third party will perform on its obligations, that financial organization shall calculate regulatory capital requirements as if it were itself the principal.
- (5) In calculating regulatory capital for collateralized transactions, financial organizations shall operate under the simple approach as detailed in paragraphs 24, 25 and 31 only in the banking book, and under the comprehensive approach as detailed in paragraphs 26, 27, 28, 29, 30 and 31 only in the trading book.
- (6) Notwithstanding paragraph 22(5), collateralized securities financing transactions including collateralized repo style transactions in the banking book shall be subject to the comprehensive approach.
- (7) Partial collateralization shall be recognized in both the simple and the comprehensive approach.

**Pre-conditions  
for the use of  
collateral under  
either approach**

23. Prior to a financial organization receiving any regulatory capital relief in respect of any form of collateral, the following standards shall be met under the simple and comprehensive approach.
  - (a) in addition to the general requirements for legal certainty as contained in paragraph 20, the legal mechanism by which collateral is pledged or

transferred shall ensure that the financial organization has 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 such other credit events as set forth in the transaction documentation of the counterparty or the custodian holding the collateral;

- (b) financial organizations shall take all steps necessary to fulfill all legal requirements applicable to their interest in the collateral for obtaining and maintaining an enforceable security interest including –
  - (i) registering it with a registrar; and
  - (ii) 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 shall not be eligible for credit risk mitigation purposes;
- (d) financial organizations shall have clear and robust procedures for the timely liquidation of collateral to ensure that any legal conditions required for declaring the default of the counterparty and liquidating the collateral are observed, and that the collateral can be liquidated promptly; and
- (e) where a custodian holds the collateral, financial organizations shall take reasonable steps to ensure that the custodian segregates the collateral from its own assets.

**The Simple Approach**

- 24. (1) For collateral to be eligible, it shall-
  - (a) be pledged for at least the life of the exposure; and
  - (b) be marked to market and revalued with a minimum frequency of six months.
- (2) Collateral may be reduced in proportion to the amount of the reduction in the exposure amount where the collateral is cash.
- (3) The release of collateral by the financial organization shall be conditional upon the repayment of the exposure.

**Risk Weighting of Collateral Instruments**

- 25. (1) Portions of claims collateralized by the market value of eligible collateral may receive the risk-weight applicable to the collateral instrument.

**The  
Comprehensive  
Approach**

- (2) The risk-weight on the collateralized portion shall be subject to a minimum risk-weight of 20 per cent and the uncollateralized portion of the claim shall be assigned the risk-weight appropriate to the counterparty.
- (3) Notwithstanding the minimum risk weight referred to in paragraph 25(2) for the collateralized portion of a claim, a 0 per cent risk weight shall apply where the exposure and the collateral are denominated in the same currency and the collateral is cash.
- (4) For the purposes of paragraph 25(3), cash shall be defined as under paragraph 31.

26. (1) For a collateralized transaction, the exposure amount after risk mitigation shall be calculated as follows-

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

where:

*E\** = the exposure value after risk mitigation

*E* = current value of the exposure

*H<sub>e</sub>* = haircut appropriate to the exposure

*C* = the current value of the collateral received

*H<sub>c</sub>* = haircut appropriate to the collateral

*H<sub>fx</sub>* = haircut appropriate for currency mismatch between the collateral and exposure.

- (2) The exposure amount after risk mitigation shall be multiplied by the risk weight of the counterparty to obtain the risk-weighted asset amount for the collateralized transaction.
- (3) The treatment for transactions where there is a mismatch between the maturity of the counterparty exposure and the collateral shall be as in paragraph 43.
- (4) Where the collateral is a basket of assets, the haircut on the basket shall be:

$$H = \sum_i a_i H_i$$

*i*

where:

*a<sub>i</sub>* = the weight of the asset (as measured by units of currency) in the basket; and

$H_i =$  the haircut applicable to that asset.

(5) Financial organizations shall use the standard supervisory haircuts referred to in paragraph 27 in calculating the exposure amount after risk mitigation.

**Standard  
supervisory  
haircuts**

27. (1) The standard supervisory haircuts assuming daily mark-to-market, daily re-margining and a ten-business day holding period, expressed as percentages shall be as follows-

Issue rating for debt security	Residual Maturity	Sovereigns	Other issuers
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	≤ 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	
Undertakings for Collective Investments in Transferable Securities/Mutual Funds		Highest haircut applicable to any security in which the fund can invest	
Cash in the same currency		0	

- (2) For transactions in which the financial organization lends non-eligible instruments including non-investment grade corporate debt securities the haircut to be applied on the exposure shall be the same as that for equity traded on a recognized exchange that is not part of a main index.
- (3) For the purpose of this paragraph-
- (a) “sovereigns” includes central governments, central banks, public sector entities treated as sovereigns by the national supervisor and multilateral development banks receiving a 0 per cent risk weight;
  - (b) “other issuers” includes public sector entities which are not treated as sovereigns by the national supervisor;
  - (c) “unrated securities” shall be defined as in paragraph 31(1)(e); and
  - (d) “cash in the same currency” means eligible cash collateral.
- (4) The haircut numbers in paragraph 27(1) shall be scaled up or down using the square root of time formula as shown in paragraph 28(2) depending on the type of instrument, type of transaction, frequency of re-margining or revaluation.
- (5) The standard supervisory haircut based on a ten business day holding period and daily mark-to-market for currency risk where exposure and collateral are denominated in different currencies shall be 8 per cent.

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

28.

- (1) The minimum holding period and margining and revaluation conditions for various products shall be as follows-

<b>Transaction type</b>	<b>Minimum holding period</b>	<b>Condition</b>
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

- (2) When the frequency of re-margining or revaluation is longer than the minimums in paragraph 28 (1), the standard supervisory haircuts at paragraph 27 (1) shall be scaled up or down depending on the type of

transaction and the actual number of business days between re-margining or revaluation using the square root of time formula as follows-

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

*H = haircut*

*H<sub>10</sub> = 10-business day standard supervisory haircut for instrument*

*N<sub>R</sub> = actual number of business days between re-margining for capital market transactions or revaluation for secured transactions*

*T<sub>M</sub> = minimum holding period for the type of transaction*

**Securities  
Financing  
Transactions**

29. Financial organizations shall use the comprehensive approach to recognize collateral for collateralized securities financing transactions in both the banking and trading book.

**Treatment of  
Securities  
Financing  
Transactions not  
covered under  
master netting  
agreements**

30. (1) Capital charges for collateralized securities financing transactions that are not covered by master netting agreements shall be calculated in accordance with paragraphs 26, 27 and 28.
- (2) Financial organizations may recognize the effects of bilateral netting agreements covering collateralized securities financing transactions including repurchase and reverse repurchase agreements on a counterparty-by-counterparty basis if the agreements are legally enforceable in each relevant jurisdiction upon the occurrence of an event of default regardless of whether the counterparty is insolvent or bankrupt.
- (3) Netting agreements shall-
- (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) be legally enforceable in each relevant jurisdiction upon the occurrence of an event of default and regardless of the counterparty's insolvency or bankruptcy.
- (4) Netting across positions in the banking and trading book shall only be recognized when the netted transactions fulfill the following conditions-
- (a) all transactions are marked-to-market daily; and
  - (b) the collateral instruments used in the transactions are recognized as eligible financial collateral in accordance with paragraph 31 in the banking book.
- (5) Financial organizations shall determine the adjusted exposure after credit risk mitigation for securities financing transactions covered under master netting agreements as follows-

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

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

- (6) All haircuts to be applied under this paragraph shall be in accordance with the rules for haircuts as referred to in paragraphs 27 and 28.

**Eligible  
Financial  
Collateral under  
Simple approach**

31. (1) The following collateral instruments shall be eligible for recognition under the Simple Approach-
- (a) cash on deposit at the financial organization that incurs the exposure;
  - (b) certificates of deposit including fixed rate certificates of deposit and variable rate certificates of deposits issued by the lending financial organization which are held on deposit with the financial organization

that incurs the counterparty exposure;

(c) gold;

(d) debt securities rated by a credit rating agency where these are either-

(i) at least BB- when issued by sovereigns or public sector entities that are treated as sovereigns by the national supervisor;

(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.

(e) debt securities not rated by a credit rating agency where -

(ii) issued by a financial organization;

(iii) listed on a recognized exchange;

(iv) classified as senior debt;

(v) all rated issues of the same seniority by the issuing financial organization must be assigned a credit rating of at least BBB- or A-3/ P-3 by a credit rating agency;

(vi) the financial organization holding the securities as collateral has no information to suggest that the issue justifies a rating below BBB- or A-3/P-3; and

(vii) the Central Bank is satisfied that there is adequate market liquidity for the security.

(f) equities including convertible bonds that are included in a main index; and

(g) Undertakings for Collective Investments in Transferable Securities and mutual funds where-

(i) a price for the units is publicly quoted daily; and

(ii) the Undertakings for Collective Investments in Transferable Securities or mutual fund are limited to investing in the instruments listed in this paragraph.

(2) Cash funded credit linked notes issued by the financial organization against exposures in the banking book which fulfil the criteria for credit derivatives shall be treated as cash collateralized transactions;

(3) Cash on deposit or certificates of deposit referred to in paragraph 31(1)(b) issued by the financial organization incurring the counterparty exposure

where-

- (i) it is held at a third party financial organization in a non-custodial arrangement;
- (ii) it is openly pledged or assigned to the financial organization incurring the counterparty exposure; and
- (iii) the pledge or assignment is unconditional and irrevocable.

**Eligible  
Financial  
Collateral under  
Comprehensive  
Approach**

32. (1) The following collateral instruments shall be eligible for recognition under the comprehensive approach-
- (a) all of the instruments referred to as eligible collateral under Simple Approach in paragraph 31;
  - (b) equities including convertible bonds which are not included in a main index but which are listed on a recognized exchange; and
  - (c) Undertakings for Collective Investments in Transferable Securities or mutual funds that include such equities referred to in paragraph 32(1)(b).
- (2) The use of derivative instruments by Undertakings for Collective Investments in Transferable Securities or mutual funds solely to hedge investments will not prevent units in those Undertakings for Collective Investments in Transferable Securities or mutual fund from being eligible financial collateral

**On Balance  
Sheet Setting Off  
or Netting**

33. (1) A financial organization may calculate capital requirements on the basis of its net credit exposures where it has legally enforceable arrangements for netting or setting-off loans against deposits and the financial organization -
- (a) have basis, with which the Central Bank agrees, 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.

(2) A financial organization shall apply the treatment set out under paragraphs 26, 27 and 28 for the purposes of the regulatory capital calculation for on-balance sheet netting or setting off and -

- (a) loans shall be treated as exposures and deposits shall be treated as collateral;
- (b) the haircuts shall be zero except when a currency mismatch exists; and
- (c) a ten business day holding period shall apply when daily mark-to market is conducted and the following requirements are completed-
  - (i) recognition and calculation of the appropriate standard supervisory haircuts; and
  - (ii) adjustment for any maturity mismatches.

**Guarantees and  
Credit  
Derivatives**

34.

(1) Financial organizations may use guarantees or credit derivatives to obtain capital relief where—

- (a) they are direct, explicit, irrevocable, legally enforceable and unconditional; and
- (b) the Central Bank is satisfied that the financial organization fulfills the minimum operational conditions set out in Part III of this Schedule relating to risk management processes.

(2) Where a financial organization uses guarantees or credit derivatives to obtain regulatory capital relief, a substitution approach shall be applied as follows-

- (a) only guarantees issued by or protection provided by entities with a lower risk weight than the counterparty will lead to reduced capital charges; and
- (b) the uncovered portion retains the risk weight of the underlying

counterparty.

- Range of Eligible Guarantors, Counter-Guarantors and Protection Providers** 35. (1) The Central Bank shall recognize credit protection given by the following entities-
- (a) sovereigns, public sector entities, banks and securities firms with a lower risk weight than the counterparty; and
  - (b) other entities rated A- or better, including credit protection provided by parent, subsidiary and affiliate companies when they have a lower risk weight than the obligor.
- (2) For the purposes of this paragraph 35(1), sovereigns include Central Governments, Central Banks, the Bank for International Settlements, the International Monetary Fund, the European Central Bank and the European Community, as well as those multilateral development banks eligible for the 0 per cent risk weight in accordance with the credit risk weighting framework in Part I of this Schedule.
- Risk Weights for Guarantors, and Protection Providers** 36. (1) Financial organizations shall assign –
- (a) the risk weight of the guarantor or protection provider to the protected portion of a claim; and
  - (b) the risk weight of the underlying counterparty to the uncovered portion of the claim.
- (2) Materiality thresholds on payments below which no payment is made in the event of loss shall be equivalent to retained first loss positions and shall be deducted in full from the regulatory capital of the financial organization purchasing the credit protection.
- Proportional Cover** 37. (1) 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, regulatory capital relief shall be afforded on a proportional basis.
- (2) The secured portion of the exposure shall receive the treatment applicable to eligible guarantors or credit derivatives in paragraphs 34, 35 and 36 and the remainder shall be treated as unsecured.

- Tranched Cover** 38. Where financial organizations transfer a portion of the risk of an exposure in one or more tranches to a protection seller or sellers and –
- (a) retain some level of risk of the loan; and
  - (b) the risk transferred and the risk retained are of different seniority,
- they may obtain credit protection for either the senior tranches or the junior tranches and the rules relating to credit risk securitization in Part VI shall apply.
- Treatment of Pools of Credit Risk Mitigation Techniques** 39. Where financial organizations have multiple credit risk mitigation techniques covering a single exposure or where credit protection provided by a single protection provider has differing maturities -
- (a) the financial organization shall subdivide the exposure into portions covered by each type of credit risk mitigation technique; and
  - (b) the risk-weighted assets of each portion shall be calculated separately.
- First-To-Default Credit Derivatives** 40. (1) Where a financial organization obtains credit protection for a basket of reference names and-
- (a) the first default among the reference names triggers the credit protection; and
  - (b) the credit event also terminates the contract,
- the financial organization 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.
- (2) Where a financial organization provides credit protection through the instrument referred to in paragraph 40(1) and it has a credit rating from a credit rating agency, the risk weight applied to securitization exposures contained in Part VI shall be applied.
- (3) If the instrument referred to in paragraph 40(1) is not rated by a credit rating agency, the risk weights of the assets included in the basket will be aggregated up to a maximum of 1,250 per cent 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**

41. (1) Where the second default among the assets within the basket triggers the credit protection, financial organizations obtaining credit protection through such an instrument shall only be able to recognize any regulatory capital relief if –
- (a) first-default-protection has also been obtained; or
  - (b) one of the assets within the basket has already defaulted.
- (2) For financial organizations providing credit protection through an instrument referred to in paragraph 41(1), the capital treatment shall be the same as in paragraph 40(3), except that in aggregating the risk weights, the asset with the lowest risk weighted amount may be excluded from the calculation.

**Currency mismatches**

42. (1) Where a financial organization is utilizing credit risk mitigation techniques and there is a currency mismatch, the amount of the exposure deemed to be protected shall be reduced by the application of a haircut  $H_{FX}$  using the following formula-

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

$G_A$  = 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.

- (2) The appropriate haircut based on a ten-business day holding period as contained in paragraph 27, assuming daily marking-to-market, shall be applied. The haircuts shall be scaled up or down using the square root of time formula, depending on the frequency of revaluation of the credit protection as described in paragraph 28.

**Maturity Mismatches**

43. (1) For the purposes of using the credit risk mitigation techniques set out under this Part-
- (a) the effective maturity of the underlying exposure shall be the longest possible remaining time before the counterparty is scheduled to fulfill its obligation, taking

- into account any applicable grace period; and
- (b) for the hedge, embedded options which may reduce the term of the hedge shall be taken into account so that the shortest possible effective maturity is used.
- (2) Notwithstanding paragraph 43(1), for the purposes of using credit risk mitigation techniques for calls –
- (a) where a call is at the discretion of the protection seller, the maturity shall always be at the first call date;
- (b) where the call is at the discretion of the protection buyer but the terms of the arrangement at origination of the hedge contain a positive incentive for the protection buyer to call the transaction before contractual maturity, the remaining time to the first call date shall be deemed to be the effective maturity.
- (3) A financial organization may recognize the effects of credit risk mitigation 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 year; and
- (b) the hedge has a residual maturity of more than three months.
- (4) Maturity mismatches shall not be permitted under the simple approach for collateral.
- (5) Financial organizations shall calculate the value of the credit risk mitigation 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 including the collateral amount or 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



**PART III - Provisions on Operational Requirements For The Purpose Of Guarantees and Credit Derivatives**

**Operational requirements common to guarantees and credit derivatives**

44. (1) In order for a guarantee, or credit derivative to be recognized for the purpose of regulatory capital requirements in Part II of this schedule -
- (a) a guarantee or credit derivative shall-
- (i) 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;
  - (ii) be irrevocable, other than where there is non-payment by a protection purchaser of money due in respect of the credit protection contract and in particular –
    - (a) there shall 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 exposure; and
    - (b) the maturity agreed ex ante shall not be reduced ex post by the protection provider; and
  - (c) be unconditional so that there is no clause in the protection contract outside the direct control of the financial organization 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 due.

**Additional operational requirements for guarantees**

45. (1) In addition to the legal certainty requirements in Part II of this Schedule and the operational requirements set out in paragraph 44, in order for a guarantee to be recognized by the Central Bank for the purposes of regulatory capital requirements the following conditions shall be satisfied

- (a) on the qualifying default or non-payment of the counterparty, the financial organization shall 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 shall be an explicitly documented obligation assumed by the guarantor; and
  - (c) the guarantee shall cover all types of payments the underlying obligor is expected to make under the documentation governing the transaction.
- (3) Where the guarantee covers payment of principal only, interest and other uncovered payments shall be treated as an unsecured amount in accordance with paragraph 37.

**Additional  
operational  
requirements for  
credit  
derivatives**

46. (1) In addition to the operational requirements set out in paragraph 44, in order for a credit derivative contract to be recognized by the Central Bank for the purposes of regulatory capital requirements the following conditions shall be satisfied-
- (a) the credit events specified by the contracting parties shall at a minimum cover-
    - (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) events including 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
    - (iii) restructuring of the underlying obligation involving forgiveness or postponement of principal, interest or fees that results in a credit loss event.

(b) if the credit derivative covers obligations that do not include the underlying obligation, paragraph 46 (2) shall govern whether the asset mismatch is permissible;

(c) subject to paragraphs 43(1) and (2) the credit derivative shall not terminate prior to expiration of any grace period required for a default on the underlying obligation which has occurred as a result of a failure to pay;

(d) in the case of credit derivatives allowing for cash settlement-

(i) a robust valuation process shall be in place in order to estimate loss reliably;

(ii) there shall be a clearly specified period for obtaining post-credit event valuations of the underlying obligation; and

(iii) if the reference obligation specified in the credit derivative for purposes of cash settlement is different from the underlying obligation, paragraph 46(2) shall govern whether the asset mismatch is permissible;

(e) if the consent of the protection purchaser to transfer the underlying obligation to the protection provider is required for settlement, the terms of the underlying obligation shall provide that any required consent to such transfer may not be unreasonably withheld; and

(f) where a credit event has occurred-

(i) the identity of the parties responsible for determining whether a credit event has occurred shall be clearly defined;

(ii) the determination of the occurrence of the credit event shall not be the sole responsibility of the protection seller; and

(iii) the protection buyer shall have the right to inform the protection provider of the occurrence of a credit event.

(2) A mismatch between the underlying obligation and the reference obligation under the credit derivative is permissible if –

(a) the reference obligation ranks pari passu with or is junior to the underlying obligation;

(b) the underlying obligation and reference obligation share the same

- obligor; and
- (c) legally enforceable cross-default or cross-acceleration clauses are in place.
- (3) A mismatch between the underlying obligation and the obligation used for purposes of determining whether a credit event has occurred is permissible if-
- (a) the obligation used for the purposes of determining whether a credit event has occurred ranks pari passu with or is junior to the underlying obligation; and
  - (b) the underlying obligation and the obligation being used for determining whether a credit event has occurred share the same obligor; and
  - (c) legally enforceable cross-default or cross acceleration clauses are in place.
- (4) Where the restructuring of the underlying obligation is not covered by the credit derivative, but the other operational requirements in paragraph 45 are met partial recognition of the credit derivative shall be allowed as follows-
- (a) if the amount of the credit derivative is less than or equal to the amount of the underlying obligation, 60 per cent of the amount of the hedge shall be recognized as covered; and
  - (b) if the amount of the credit derivative is larger than that of the underlying obligation, then the amount of eligible hedge shall be no more than 60 per cent of the amount of the underlying obligation.
- (5) Only credit default swaps and total return swaps that provide credit protection equivalent to guarantees shall be eligible for recognition.
- (6) Notwithstanding paragraph 46(5), the credit protection shall not be recognized for the purpose of regulatory capital requirements where a financial organization buys 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.

- (7) Cash funded credit linked notes issued by the financial organization against exposures in the banking book which fulfil the criteria for credit derivatives shall be treated as cash collateralized transactions.
- (8) Credit derivatives other than those referred to in this Part are not eligible for recognition for the purposes of regulatory capital requirements.

#### Part IV - Provisions on Over the Counter Derivatives

Counter Party  
Credit Risk for  
Over the Counter  
Derivatives

47. (1) Financial organizations are required to calculate counterparty credit risk capital charges for all over the counter derivatives in both the banking and the trading book.
- (2) The over the counter derivatives to which counterparty credit risk charges shall apply include but is not limited to forwards, swaps and options.
- (3) To determine the counterparty credit risk charge of any over the counter derivative in the banking or trading book financial organizations are required to apply the current exposure method as referred to in paragraph 48.

Current Exposure  
Method

48. (1) The counterparty credit risk charge for an individual contract shall be calculated as follows-

$$\text{Counterparty Credit Risk Capital Charge} = [(\text{RC} + \text{add-on}) - \text{CA}] \times r \times \text{CAR}$$

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.

- (2) In the determination of capital charges for counterparty credit risk

financial organizations shall calculate-

- (a) the total replacement cost of all of its contracts by marking to market 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-

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

- (3) For contracts with multiple exchanges of principal, the factors shall be multiplied by the number of remaining payments in the contract.
- (4) The residual maturity of over the counter derivative contracts shall be equal to the time until the next reset date where-
  - (a) the contracts are structured to settle outstanding exposure following specified payment dates; and
  - (b) the terms are reset such that the market value of the contract is zero on these specified payment dates.
- (5) Where interest rate contracts with remaining maturities of more than one year meet the criteria at paragraph 48(4) the add-on factor for the purposes of the calculation of the counterparty credit risk capital charge

shall be no less than 0.5 per cent.

- (6) For the purposes of 48(2)(b) forwards, swaps, purchased options and similar derivative contracts not covered by any of the columns of the matrix shall be treated as other commodities.
- (7) No potential future credit exposure shall be calculated for single currency floating or floating interest rate swaps and the credit exposure on these contracts shall be evaluated solely on the basis of their mark-to-market value.

Calculation of the  
Counterparty  
Credit Risk  
Charge Bilateral  
Netting

49.

- (1) Where bilateral netting arrangements are in place between a financial organization and a counter party, in the event of the default or insolvency of one of the parties, the obligation shall be the net sum of all positive and negative fair values of contracts included in the bilateral netting arrangement.
- (2) When effective bilateral netting contracts are in place, a financial organization may determine the credit exposure by using net claims with the same counterparty arising out of an over the counter transaction.
- (3) For the purposes of determining the counterparty credit risk charge for over the counter derivative contracts with effective bilateral netting arrangements, the formula at paragraph 48(1) shall be used and
  - (a) the replacement cost shall be the net replacement cost; and
  - (b) the add-on shall be  $A_{Net}$  calculated as follows-

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

$A_{Net}$  = 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 48 (2)(b) of all transactions subject to legally enforceable netting agreements with one counterparty.

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

- (4) For regulatory capital requirements financial organizations may-
  - (a) net transactions subject to novation under which any obligation

between a financial organization 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; and

(b) net transactions subject to any legally valid form of bilateral netting not covered in paragraph 49(4)(a) including other forms of novation.

(5) In both the instances referred to in 49(4)(a) and (b) the financial organization shall satisfy the Central Bank that they have-

(a) a netting contract or agreement with the counterparty which creates a single legal obligation, covering all included transactions, such that the financial organization 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 default, bankruptcy, liquidation or similar circumstances; and

(b) written and reasoned legal opinions that, in the event of a legal challenge, the relevant courts and administrative authorities would find the financial organizations exposure to be such a net exposure amount under-

(a) 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 foreign branch is located;

(b) the law that governs the individual transactions;

(c) the law that governs any contract or agreement necessary to effect the netting; and

(d) 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.

(6) The Central Bank must be satisfied that the netting is enforceable under



the laws of each of the relevant jurisdictions.

- (7) In making its determination in paragraph 49(6), the Central Bank shall consult with other relevant supervisors and where any of the supervisors with whom the Central Bank has consulted is dissatisfied about enforceability under its laws, the netting contract or agreement shall be deemed to not meet this condition and neither counterparty shall obtain supervisory benefit.
- (8) Contracts containing walkaway clauses which permit 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, shall not be eligible for netting for the purpose of calculating regulatory capital requirements.
- (9) For the purposes of this paragraph, “bilateral netting” means the consolidation of agreements between a financial organization and a counterparty which results in a single legally enforceable arrangement between a financial organization and a counterparty covering all included individual contracts.

Calculation of the  
Counterparty  
Credit Risk  
Charge Credit  
Derivatives

50. (1) Notwithstanding the add on factors set out in paragraph 48(2)(b), the counterparty credit risk charge for single name credit derivative transactions in the trading book shall be calculated using the following potential future credit exposure add-on factors-

	Protection Buyer	Protection Seller
<b>Total Return Swap</b>		
“Qualifying” reference obligation	5%	5%
“Non-qualifying” reference obligation	10%	10%
<b>Credit Default Swap</b>		
“Qualifying” reference obligation	5%	5%

“Non-qualifying” reference obligation	10%	10%
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(2) For the purposes of the calculation of the counterparty risk charges for single name credit derivative transactions in the trading book the qualifying category in paragraph 50(1) shall include-

(a) investment grade rated securities issued or fully guaranteed by-

- (i) public sector entities; and
- (ii) multilateral development banks;

(b) securities issued by other entities that are investment grade rated by a credit rating agency and that are subject to supervisory and regulatory arrangements comparable to those set out under these Regulations; and

(c) other securities, that are-

- (i) rated investment grade by at least two internationally recognized credit rating agencies recognized by the Central Bank;
- (ii) rated investment grade by at least two credit rating agencies one of which must be recognized by Central Bank; or
- (iii) subject to the approval of the Central Bank, unrated but deemed to be of investment grade quality by financial organizations and the issuer has securities listed on a recognized stock exchange.

(3) Residual maturities shall not be considered for the purposes of the calculation of the potential future credit exposure add on factors for credit derivatives.

(4) The protection seller of a credit default swap shall only be subject to the add-on factor where the credit default swap is subject to closeout upon the insolvency of the protection buyer while the underlying obligation is still solvent and where paragraph 50 (4) applies the maximum add-ons shall be no more than the amount of the unpaid premiums.

(5) Where the credit derivative is a first to default transaction, the add-on

shall be determined by the lowest credit quality underlying obligation in the basket and the non-qualifying reference obligation add-on shall be used.

- (6) For second and subsequent to default transactions, underlying assets shall continue to be allocated according to the credit quality.

**Part V - Provisions Related To Failed Trades and Non-Delivery Versus Payment**

**Failed Trades  
and Non  
Delivery versus  
payment  
Transactions**

51. (1) The regulatory capital treatment under this Part shall apply to all transactions on securities, foreign exchange instruments, and commodities that are at a risk of delayed settlement or delivery including 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.
- (2) Financial organizations shall develop, implement and improve systems for tracking and monitoring the credit risk exposures arising from unsettled and failed transactions that produce management information that facilitates action related to the management of their trades on a timely basis.
- (3) Capital charges shall be calculated for both delivery versus payment and non-delivery versus payment exposures.
- (4) Where a system wide failure of a settlement or clearing system occurs the Central Bank may use its discretion to waive capital charges until the situation is rectified.
- (5) Failure of a counterparty to settle a trade in itself will not be deemed a default for purposes of credit risk capital charges under this Part.
- (6) Repurchase agreements and reverse repurchase agreements as well as securities lending and borrowing that have failed to settle are excluded from the regulatory capital treatment under this Part.
- (7) For delivery versus payment transactions, if the payments have not yet taken place five business days after the settlement date, financial organizations shall calculate a capital charge by multiplying the positive current exposure of the transaction by the appropriate factor, according to the following table-

Number of business days after the agreed settlement date	Corresponding Risk Factor
From 5 to 15	8%

From 16-30	50%
From 31-45	75%
46 or more	100%

- (8) For non- delivery versus payment transactions, after the first contractual payment or delivery leg, the financial organization that has made the payment shall treat its exposure as a loan if the second leg has not been received by the end of the business day and a 100 per cent risk-weight shall be applied to these exposures.
- (9) If after five business days after the second contractual payment or delivery date the second leg has not yet effectively taken place, the financial organization that has made the first payment leg shall deduct from regulatory capital the full amount of the value transferred plus replacement cost, if any, until the second payment leg is effectively made.

**Part VI - Provisions for Securitization Frameworks**

**Credit Risk  
Securitization  
Framework**

- 52. (1) All financial organizations whether acting as an originator or third party investor shall hold regulatory capital against all securitization exposures, whether on or off balance sheet, arising from traditional and synthetic securitizations or similar structures that contain features common to both.
- (2) Underlying instruments in the pool being securitized may include, but are not limited to, loans, commitments, asset-backed and mortgage-backed securities, corporate bonds, equity securities and private equity investments and the underlying pool may include one or more exposures.
- (3) Financial organizations shall look to the economic substance rather than the form of a securitization transaction to determine whether it shall be subject to the securitization framework in this Part.
- (4) Financial organizations shall apply the securitization framework outlined under this Part for determining regulatory capital requirements on exposures arising from traditional and synthetic securitizations or similar structures that contain features common to both.

- (5) Notwithstanding paragraph 52(4) financial organizations meeting operational requirements for regulatory capital relief for traditional securitizations and synthetic securitizations in Part VII of this Schedule shall not be granted capital relief and shall hold regulatory capital against any securitization exposures retained.
- (6) Financial organizations shall monitor and control risks arising from the continued retention of any securitized exposure including the continuing assessment of any change in the risk profile of the transaction and the resulting impact on regulatory capital arising from its role in the transaction and shall have in place capital and contingency plans to deal with the risk.

Calculation of the Capital Requirement against Securitization Exposures

53. (1) Financial organizations shall 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 contained in this Part.
- (2) Repurchased securitization exposures shall be treated as retained securitization exposures.

Risk Weights long and short term categories

54. The risk-weighted asset amount of a securitization exposure shall be computed by multiplying the exposure or the credit equivalent amount of the exposure by the appropriate risk weight determined in accordance with the following tables-

**Long Term Category**

<b>Credit Rating</b>	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ and below or unrated
<b>Risk Weight-Investor</b>	20%	50%	100%	350%	Deduction
<b>Risk Weight-Originator</b>	20%	50%	100%	Deduction	

**Short Term Category**

<b>Credit Rating</b>	A-1/P-1	A-2/P-2	A-3/P-3	All other ratings or unrated
<b>Risk Weight</b>	20%	20%	50%	Deductions

**risk weights for on-Balance Sheet Securitization Exposure**

**55.**

- (1) The risk weighted amount of an on-balance sheet securitization exposure shall be determined by multiplying the amount of the securitization exposure by the appropriate risk weight set out at paragraph 54.
- (2) Notwithstanding the risk weights for securitization exposures set out at paragraph 54, only third-party investors may recognize credit ratings of BB+ to BB- for risk weighting purposes and originators must deduct from regulatory capital any credit rating below BBB-.
- (3) Originating financial organizations shall deduct all retained securitization exposures rated below investment grade.
- (4) Unrated securitization exposures shall be deducted from regulatory capital subject to the following exceptions-
  - (a) the most senior exposure in a securitization;
  - (b) exposures that are in a second loss position or better in asset backed commercial paper programmes and meet the requirements outlined in paragraph 57(1) and
  - (c) eligible liquidity facilities as referred to in paragraph 59(1).

**Treatment of unrated most senior securitization exposures**

**56.**

- (1) If the most senior exposure in a securitization of a traditional or synthetic securitization is unrated, a financial organization 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. Financial organizations shall not 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.

(2) In the look-through approach-

- (a) the unrated most senior position shall receive the average risk weight of the underlying exposures subject to the review of the Central Bank; and
- (b) where the financial organization is unable to determine the risk weights assigned to the underlying credit risk exposures, the unrated position shall be deducted.

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

57. (1) Deduction for regulatory capital is not required for unrated securitization exposures provided by sponsoring financial organizations to asset backed commercial paper 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 financial organization holding the unrated securitization exposure does not retain or provide the first loss position.
- (2) Where these conditions are satisfied, the risk weight shall be the greater of -
- (i) 100 per cent ; or
  - (ii) the highest risk weight assigned to any of the underlying individual exposures covered by the facility.

**Credit conversion factors for off-balance sheet exposures**

58. (1) For off-balance sheet exposures, licenses and financial companies shall apply the appropriate credit conversion factors and then risk weight the resultant credit equivalent amount according to the risk weight provisions at paragraphs 54 and 55.
- (2) For the purpose of regulatory capital requirements, financial organizations shall determine whether an off-balance sheet securitization

exposure qualifies as an eligible liquidity facility or an eligible servicer cash advance facility as referred to in paragraphs 59(1) and 62(1).

(3) All other rated off-balance sheet securitization exposures shall be assigned a 100 per cent credit conversion factor.

**Eligible liquidity facilities** 59.

(1) Where financial organizations meet at least the following requirements they may treat off-balance sheet securitization exposures as eligible liquidity facilities -

(a) the facility documentation shall-

(i) clearly identify and limit the circumstances under which it may be drawn;

(ii) limit the amount of the draws under the facility to that which is likely to be repaid fully from the liquidation of the underlying exposures and any seller-provided credit enhancements; and

(iii) 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 shall-

(i) be subject to an asset quality test that precludes it from being drawn to cover credit risk exposures that are in default;

(ii) only be used to fund securities that are externally rated investment grade at the time of funding if the exposures that a liquidity facility is required to fund are externally rated securities;

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

(d) Repayment of draws on the facility shall not be subordinated to any interests of any note holder in a commercial paper programme, including asset backed commercial paper programmes, or subject to deferral or waiver.



- (2) Where the conditions referred to in paragraph 59(1) are met, the financial organization may apply –
- (a) a 20 per cent credit conversion factor to the amount of eligible liquidity facilities with an original maturity of one year or less;
  - (b) a 50 per cent credit conversion factor if the facility has an original maturity of more than one year; or
  - (c) a 100 per cent credit conversion factor if an external rating of the facility itself is used for risk-weighting the facility.

**Eligible liquidity facilities available only in the event of market disruption**

60. (1) Financial organizations may apply a 0 per cent credit conversion factor to eligible liquidity facilities referred to in paragraph 55 that are only available in the event of a general market disruption including but not limited to where –
- (a) more than one special purpose vehicle across different transactions are unable to roll over maturing commercial paper; and
  - (b) that inability under paragraph 60(1)(a) is not the result of an impairment in the credit quality of the special purpose vehicle or in the credit quality of the underlying exposures.
- (2) To qualify for the treatment referred to in paragraph 60(1), the funds advanced by the financial organization to pay holders of the capital market instruments when there is a general market disruption shall be secured by the underlying assets, and shall rank at least pari passu with the claims of holders of the capital market instruments.

**Risk weights for eligible liquidity facilities**

61. For eligible liquidity facilities where the conditions for use of external credit ratings for exposures in paragraph 84 are not met, the risk weight applied to the exposure's credit equivalent amount shall be equal to the highest risk weight assigned to any of the underlying individual exposures covered by the facility.

**Eligible servicer cash advance facilities**

62. (1) Undrawn cash advances extended by a financial organization acting as a servicer of a securitization exposure to ensure an uninterrupted flow of payments to investors may be treated as an eligible servicer cash advance facility where the following conditions are met-
- (i) the provision of such facilities is contractually provided for;
  - (ii) the servicer is entitled to full reimbursement and this right is

senior to other claims on cash flows from the underlying pool of exposures; and

(iii) such undrawn servicer cash advances or facilities are unconditionally cancellable without prior notice.

(2) Undrawn servicer cash advance facilities meeting the conditions at paragraph 62(1) may be assigned a 0 per cent credit conversion factor.

**Treatment of overlapping exposures**

63. (1) Where a financial organization holds overlapping facilities provided by the same financial organization, the financial organization shall hold regulatory capital once for the position covered by the overlapping facilities whether they are liquidity facilities or credit enhancements.
- (2) Where the overlapping facilities are subject to different conversion factors, the financial organization shall attribute the overlapping part to the facility with the highest conversion factor.
- (3) Each financial organization shall each hold regulatory capital for the maximum amount of the facility if overlapping facilities are provided by different financial organizations.

**Deductions of securitization exposure**

64. (1) When a financial organization is required to deduct a securitization exposure from regulatory capital-
- (a) the deduction must be taken 50 per cent from tier 1 capital referred to in Regulation 10 of these Regulations and 50 per cent from tier 2 capital referred to in Regulation 11 of these Regulations with the one exception noted in paragraph 64(2);
- (b) credit enhancing interest only strip net of any gain on sale are deducted 50 per cent from tier 1 capital referred to in Regulation 10 of these Regulations and 50 per cent from tier 2 capital referred to in Regulation 11 of these Regulations; and
- (c) deductions from regulatory capital shall be calculated net of any specific provisions taken against the relevant securitization exposures.
- (2) Notwithstanding the deductions referred to in paragraph 64(1), financial organizations shall deduct in full any gain on sale from tier 1 capital

referred to in Regulation 10 of these Regulations.

- Implicit support** 65. (1) When a financial organization provides implicit support to a securitization transaction, it shall, at a minimum, hold regulatory capital against all of the exposures associated with the securitization transaction as if they had not been securitized.
- (2) Financial organizations shall not recognize in regulatory capital any gain-on-sale where it provides implicit support to a securitization transaction.
- (3) Where a financial organization provides implicit support to a securitization transaction it shall disclose publicly, pursuant to Regulation 7-
- (a) that it has provided non-contractual support; and
- (b) the capital impact of providing support.
- Treatment of credit risk mitigation for securitization exposures** 66. (1) For the purpose of the treatment of credit risk mitigation for securitization exposures, “collateral” means collateral used to hedge the credit risk of a securitization exposure and not the underlying exposures of the securitization transaction.
- (2) When a financial organization other than the originator provides credit protection to -
- (a) a securitization exposure, it shall hold regulatory capital on the covered exposure as if it were an investor in that securitization; and
- (b) an unrated credit enhancement, it shall treat the credit protection provided as if it were directly holding the unrated credit enhancement.
- Collateral** 67. (1) Only eligible collateral as set out in paragraphs 31 and 32 shall be recognized for the purpose of securitization exposures.
- (2) Collateral pledged by special purpose vehicles may be recognized for the purpose of securitization exposures.
- Guarantees and Credit derivatives** 68. (1) Only credit protection provided by eligible guarantors of the credit risk mitigation framework in Part II of this Schedule may be recognized for the purpose of securitization exposures.
- (2) Special purpose vehicles shall not be recognized as eligible guarantors.

- (3) Financial organizations may take into account credit protection provided by guarantees and credit derivatives in calculating regulatory capital requirements for securitization exposures where they fulfill the minimum operational conditions as specified under Part III.
- (4) Regulatory capital requirements for the guaranteed or protected portions of the exposure shall be calculated according to methodology set out under Part II.

**Maturity  
Mismatches**

69. In the treatment of credit risk mitigation for securitization exposures, regulatory capital against a maturity mismatch shall be treated as follows—
- (a) the regulatory capital requirement shall be determined in accordance paragraph 43 ; and
  - (b) when the exposures being hedged have different maturities, the longest maturity shall be used.

**Capital  
requirement for  
early amortization  
provisions**

70. (1) An originating financial organization shall hold capital 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.
- (2) For securitization structures wherein the underlying pool comprises revolving and term exposures, a financial organization shall apply the relevant early amortization treatment outlined in paragraphs 71 to 79 to that portion of the underlying pool containing revolving exposures.
- (3) Financial organizations 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 financial organization to add new exposures;
  - (b) transactions of revolving assets containing early amortization features where the risk on the underlying obligation does not return to the originating financial organization;

- (c) structures where a financial organization securitizes one or more credit line and where investors remain fully exposed to future draws by borrowers even after an early amortization event has occurred; and
- (d) the early amortization clause is solely triggered by events not related to the performance of the securitized assets or the selling financial organization, such as material changes in tax laws or regulations.

**Maximum capital requirement for early amortization treatment**

71. (1) For a financial organization subject to the early amortization treatment, the total capital charge for all of its positions will be subject to a maximum capital requirement equal to the greater of-
- (a) that required for retained securitization exposures; or
  - (b) the capital requirement that would apply had the exposures not been securitized.
- (2) Financial organizations shall deduct the entire amount of any gain-on-sale and credit enhancing interest only strips arising from the securitization transaction in accordance with paragraph 64.

**Mechanics**

72. For the purpose of early amortization treatment the capital charge of the originator for the interest of the investor shall be determined as the product of the-
- (a) interest of the investor;
  - (b) appropriate credit conversion factor in paragraphs 75(3) or 78(3); and
  - (c) risk weight appropriate to the underlying exposure type, as if the exposures had not been securitized.

**Determination of Credit Conversion Factors for Early Amortizations**

73. (1) The credit conversion factors for early amortizations shall be determined on the basis of whether the-
- (a) early amortization repays investors through a controlled or non-controlled mechanism; and
  - (b) securitized exposures are uncommitted retail credit lines.

- (2) For the purpose of early amortization a line is considered uncommitted if it is unconditionally cancellable without prior notice.

**Credit Conversion  
Factors for  
controlled early  
amortization  
features**

74. For the purposes of regulatory capital requirements, an early amortization feature shall be treated as controlled where it meets the following conditions-

- (a) the financial organization has an appropriate capital and 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 financial organization's and investors' relative shares of the receivables outstanding at the beginning of each month;
- (c) the financial organization sets a period for amortization that would be sufficient for at least 90 per cent 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 is not any more rapid than would be allowed by straight-line amortization over the period set out in paragraph 74(c).

**Uncommitted  
retail exposures  
containing  
controlled  
amortization  
features**

75. (1) For uncommitted retail credit lines in securitizations containing controlled early amortization features, financial organizations shall compare the three-month average excess spread to the point at which the financial organization is required to trap excess spread as economically required by the structure.
- (2) Where uncommitted retail credit lines containing controlled early amortization features do not require excess spread to be trapped, the trapping point shall be 4.5 percentage points.
- (3) The financial organization shall divide the excess spread level by the excess spread trapping point of the transaction to determine the appropriate segments of the excess spread and apply the corresponding conversion factors as follows-

**Controlled early amortization features**

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

(4) Financial organizations shall apply the conversion factors set out in paragraph 75(3) for controlled mechanisms to the interest of the investor referred to in paragraph 72.

**Other exposures with controlled amortization features**

76. All other securitized revolving exposures with controlled early amortization features including committed retail credit lines and non-retail credit lines whether committed or uncommitted shall be subject to credit conversion factors of 90 per cent against the off-balance sheet exposures.

**Credit Conversion Factors for non-controlled early amortization**

77. Early amortization features that do not satisfy the definition of a controlled early amortization at paragraph 74 shall be treated as non-controlled.

features

**Uncommitted  
retail exposures  
containing non-  
controlled early  
amortization  
features**

78. (1) For uncommitted retail credit lines in securitizations containing non-controlled early amortization features, financial organizations shall also compare the three-month average excess spread to the point at which the financial organization is required to trap excess spread as economically required by the structure.
- (2) Where uncommitted retail credit lines in securitizations containing non-controlled early amortization features do not require excess spread to be trapped, the trapping point shall be 4.5 percentage points.
- (3) The financial organization shall divide the excess spread level by the excess spread trapping point of the transaction to determine the appropriate segment of the excess spread and apply the corresponding conversion factors as follows-



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

**Other exposures with non-controlled amortization features** 79. All other securitized revolving exposures with non-controlled early amortization features including committed retail credit lines and non-retail credit lines whether committed or uncommitted will be subject to a credit conversion factor of 100 per cent against the off-balance sheet exposure.

**Certificates of Participation** 80. (1) For unrated certificates of participation a 20 per cent risk weight shall apply where-

- (a) the underlying assets 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 assets;
  - (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.
- (2) Certificates of participation that do not meet the criteria outlined in paragraph 80(1) shall be risk weighted in accordance with the credit risk securitization framework in this Part.

**PART VII - PROVISIONS RELATING TO OPERATIONAL REQUIREMENTS FOR THE  
PURPOSE OF SECURITIZATION EXPOSURES**

**Operational  
requirements for  
capital relief for  
Traditional  
securitizations**

81. (1) Financial organizations may exclude securitized exposures from the calculation of risk-weighted assets only if all of the following conditions are 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; and
  - (c) the assets are legally isolated from the transferor in such a way that the exposures are put beyond the reach of the transferor and its creditors, even in bankruptcy or receivership and these conditions must be supported by an opinion provided by a qualified legal counsel;
  - (d) The transferor is deemed to have maintained effective control over the transferred credit risk exposures if it-
    - (a) is able to repurchase from the transferee the previously transferred exposures in order to realize their benefits;
    - (b) is obligated to retain the risk of the transferred exposures;
    - (c) the securities issued are not obligations of the transferor and investors who purchase the securities only have claim to the underlying pool of exposures;
  - (e) the transferee is a special purpose vehicle and the holders of the beneficial interests in that vehicle have the right to pledge or exchange their beneficial interests without restriction;
  - (f) clean-up calls satisfy the conditions set out in paragraph 83; and
  - (g) the securitization does not contain clauses that-
    - (i) require the originating financial organization 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 financial organization after the transaction's inception; or
- (iii) increase the yield payable to parties other than the originating financial organization, such as investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the underlying pool.

- (2) For the purposes of paragraph 81(1)( b) the transferor's retention of servicing rights to the exposures shall not constitute indirect control of the exposures.
- (3) Financial organizations meeting the criteria in paragraph 81 (1) shall still hold regulatory capital against any securitization exposures they retain.

**Operational  
requirements for  
capital relief for  
Synthetic  
securitizations**

82.

(1) In a synthetic securitization transaction, financial organizations shall only recognize the use of credit risk mitigation techniques such as collateral, guarantees and credit derivatives for hedging the underlying exposure for capital relief purposes if -

- (a) credit risk mitigants comply with the requirements under the Credit Risk Mitigation framework in Parts II and III.
- (b) eligible collateral is limited to that specified under paragraphs 31 and 32 and for this purpose eligible collateral pledged by special purpose vehicle may be recognized for the purposes of synthetic securitizations;
- (c) eligible guarantors are limited to those defined in paragraph 35 and financial organizations may not recognize special purpose vehicles as eligible guarantors under the credit risk securitization framework in Part VI ;
- (d) financial organizations transfer significant credit risk associated with the underlying exposure to third parties;
- (e) the instruments used to transfer significant credit risk do not

contain terms or conditions that limit the amount of credit risk transferred, including clauses that-

- (i) materially limit the credit protection or credit risk transference including significant materiality thresholds below which credit protection is deemed not to be triggered even if a credit event occurs or terms or conditions that allow for the termination of the protection due to deterioration in the credit quality of the underlying exposures;
  - (ii) require the originating financial organization to alter the underlying exposures to improve the weighted average credit quality of the pool of underlying assets;
  - (iii) increase the financial organization's cost of credit protection in response to deterioration in the quality of quality of the pool of underlying assets;
  - (iv) increase the yield payable to parties other than the originating financial organization, including investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the reference pool; or
  - (v) provide for increases in a retained first loss position or credit enhancement provided by the originating financial organization after the transaction's inception.
- (f) an opinion is obtained from a qualified legal counsel that confirms the enforceability of the contracts in all relevant jurisdictions; and
- (g) clean-up calls satisfy the conditions set out in paragraph 83 .
- (2) In cases where there is a maturity mismatch, the capital requirement shall be determined in accordance with the directions for maturity mismatches provided at paragraph 43.
  - (3) When the exposures in the underlying pool have different maturities, the longest maturity shall be taken as the maturity of the pool.
  - (4) Where maturity mismatches arise through a financial organization

using credit derivatives to transfer part or all of the credit risk of a specific pool of assets to third parties-

- (a) when the credit derivatives unwind, the transaction shall terminate; and
- (b) where the effective maturity of the tranches of the synthetic securitization differs from that of the underlying exposures, originating financial organizations of synthetic securitizations shall-
  - (i) deduct all retained positions that are unrated or rated below investment grade; and
  - (ii) for all other securitization exposures, apply the maturity mismatch treatment set out at paragraph 43.

**Treatment of Clean  
Up Calls** 83.

- (1) No capital shall be required for securitization transactions that include a clean-up call if the following conditions are met-
  - (a) the exercise of the clean-up call is at the discretion of the originating financial organization and is not mandatory in substance or effect;
  - (b) the clean-up call is not 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 is only exercisable when 10 per cent or less of the original underlying portfolio or securities issued remains or, for synthetic securitizations, when 10 per cent or less of the original reference portfolio value remains.
- (2) For a traditional securitization, the underlying exposures shall be treated as if they were not securitized and financial organizations must not recognize any gain-on-sale in regulatory capital.
- (3) For synthetic securitizations, the financial organization purchasing protection shall-

- (a) hold capital against the entire amount of the securitized exposures as if they did not benefit from any credit protection; and
- (b) 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 financial organization shall treat the transaction in accordance with paragraphs 82(2), 82(3), 82(4) and 43.

- (4) If a clean-up call, when exercised, is found to serve as a credit enhancement, the exercise of the clean-up call shall be considered a form of implicit support provided by the financial organization and shall be treated in accordance with Part VI.

**Operational requirements for use of external credit ratings for securitization exposures**

- 84. (1) Financial organizations shall comply with the following operational requirements on the use of external credit ratings for securitization exposures-
  - (a) the credit rating shall:
    - (i) be from a credit rating agency and be publicly available, published in an accessible form and included in the credit rating agency's transition matrix;
    - (ii) take into account and reflect the entire amount of credit risk exposure the financial organization has with regard to all payments owed to it; and
    - (iii) fully take into account and reflect the credit risk associated with timely repayment of both principal and interest;
  - (b) A financial organization shall-
    - (i) apply credit ratings from credit rating agencies consistently across a given type of securitization exposure;
    - (ii) not use the credit ratings issued by one credit rating agency for one or more tranches and those of another credit rating agency for other positions whether retained

or purchased within the same securitization structure that may or may not be rated by the first credit rating agency; and

(iii) follow the directions for multiple credit ratings under a guideline issued by the Central Bank where two or more credit rating agencies can be used and these assess the credit risk of the same securitization exposure differently.

(c) where Credit Risk Mitigation is provided directly to a special purpose vehicle by an eligible guarantor under paragraph 35 and is reflected in the credit rating assigned to a securitization exposure-

(i) the risk weight associated with that credit rating shall be used;

(ii) no additional capital recognition shall be permitted; and

(iii) if the credit risk mitigation provider is not recognized as an eligible guarantor, the covered securitization exposures shall be treated as unrated.

(d) where a credit risk mitigant is not obtained by the special purpose vehicle but rather applied to a specific securitization exposure within a given structure-

(i) the financial organization shall treat the exposure as if it is unrated; and

(ii) use the credit risk mitigation treatment outlined under Part II and III of this Schedule to recognize the hedge.

(2) Ratings that are made available only to the parties to a transaction shall not satisfy the requirement of paragraph 84(1)(a) (i);

(3) For the purpose of paragraph 84(1) (a) credit rating agencies shall have demonstrated expertise in assessing securitizations evidenced by strong market acceptance.



## SCHEDULE 3

### PART I – Provisions related to the calculation of capital charges for operational risk

**Calculation of  
Capital Charges  
for Operational  
Risk**

1. (1) In the determination of capital charges for operational risk the activities of financial organizations shall be mapped into the following business lines in accordance with paragraph 2(1) of this Schedule-
  - (a) corporate finance;
  - (b) trading & sales,
  - (c) retail banking;
  - (d) commercial banking,
  - (e) payment & settlement,
  - (f) agency services,
  - (g) asset management; and
  - (h) retail brokerage.
- (2) The total capital charge for operational risk shall be calculated as a three year average of the simple summation of the regulatory capital charges across each business line referred to in paragraph 1 (1) in accordance with following formula-

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

$K_{TSA}$  = the capital charge for operational risk

$GI_{1-8}$  = annual gross income in a given year,

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

<b>Business Lines</b>	<b>Beta Factors</b>
Corporate finance ( $\beta_1$ )	18%
Trading and sales ( $\beta_2$ )	18%
Retail banking ( $\beta_3$ )	12%
Commercial banking ( $\beta_4$ )	15%
Payment and settlement ( $\beta_5$ )	18%
Agency services ( $\beta_6$ )	15%
Asset management ( $\beta_7$ )	12%
Retail brokerage ( $\beta_8$ )	12%

(3) For the purpose of the formula referred to in paragraph 1(2) gross income shall be the sum of net interest income and net non-interest income for each year where net interest income and net non-interest income are defined as follows-

(a) “net interest income” means interest income net of interest expense gross of any provisions; and

(b) “net non-interest income” means non-interest income, including dividend income and other operating income, gross of operating expense, including any fees paid for outsourced services and excluding realized profits and losses from sale of securities in the banking book, extraordinary or irregular items and income derived from insurance.

(4) In any given year, negative capital charges resulting from negative gross income in any business line referred to in paragraph 1 (1) may offset positive capital charges in other business lines without limit but where the aggregate capital charge across all business lines within a given year is negative, then the input to the numerator for that year shall be zero.

## Part II - Provisions related to the mapping of Business lines

**Operational  
Risk Business  
Lines**

2. (1) Operational risk business lines shall be mapped as follows-

Level 1	Level 2	Activities
Corporate Finance	Corporate Finance	Mergers and acquisitions, underwriting, privatizations, securitization, research, debt limited to government or high yield debt, equity, syndications initial public offering 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, private labels and retail cards
Commercial Banking	Commercial Banking	Project finance, real estate, export finance, trade finance, factoring, leasing, lending, guarantees, bills of exchange
Payment and Settlement	External Clients	Payments and collections, funds transfer, clearing and settlement
Agency Services	Custody	Escrow, depository receipts, securities lending 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

(2) For the purposes of paragraph 2(1) payment and settlement losses related to the activities of an institution shall be incorporated in the loss experience of the affected business line.

**Rules for the  
Business Line  
Mapping**

3.
  - (1) All activities of the financial organization shall be mapped into the eight level one business lines referred to in paragraph 2(1) in a mutually exclusive and jointly exhaustive manner.
  - (2) Any banking or non-banking activity conducted by a financial organization which cannot be readily mapped into the business line framework in paragraph 2(1), but which represents an ancillary function to an activity included in that framework, shall be allocated to the business line it supports and if more than one business line is supported through the ancillary activity, an objective mapping criteria shall be used.
  - (3) When mapping gross income, if an activity cannot be mapped into a particular business line then the business line yielding the highest charge shall be used and the same business line shall apply equally to any associated ancillary activity.
  - (4) Financial organizations may use internal pricing methods to allocate gross income between business lines provided that total gross income for the financial organization still equals the sum of gross income for the eight business lines.
  - (5) The mapping of activities into business lines for operational risk capital purposes shall be consistent with the definitions of business lines used for regulatory capital calculations for credit risk and market risk in these Regulations.
  - (6) Any deviations by a financial organization from the principle in paragraph 3(5) shall be clearly explained and documented.
  - (7) The mapping process used shall be clearly documented and, in

particular, written business line definitions shall be clear and detailed enough to allow third parties to replicate the business line mapping.

- (8) Documentation in paragraph 3(7) shall clearly explain any exceptions or overrides to the mapping process and shall be kept on record.
- (9) A financial organization shall put processes in place to define the mapping of any new activities or products.
- (10) Senior management of the financial organization shall be responsible for the mapping policy, which shall be approved by its board of directors.
- (11) The mapping process to business lines shall be independently reviewed, by, at a minimum, the internal audit function of the financial organization.

**Oversight and  
Governance  
Standards for  
Operational  
Risk**

- 4. (1) Financial organizations shall satisfy the Central Bank that-
  - (a) its board of directors and senior management 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 application of the operational risk framework in the major business lines as well as the control and audit areas.
- (2) In assessing the requirements under 4 (1) (b) the Central Bank shall consider the integrity and reliability of the inputs, assumptions, processes, and outputs of the financial organization's operational risk management system.
- (3) Financial organizations shall develop policies and have documented criteria for mapping gross income for current business lines and activities which shall be reviewed and adjusted for new or changing business activities.
- (5) Financial organizations shall have an operational risk management

system with clear responsibilities assigned to an operational risk management function which shall be responsible for-

- (a) developing strategies to identify, assess, monitor and control or mitigate operational risk;
  - (b) codifying company and group-level policies and procedures concerning operational risk management and controls;
  - (c) designing and implementing the financial organization's operational risk assessment methodology;
  - (d) designing and implementing a risk-reporting system for operational risk;
  - (e) systematically tracking relevant operational risk data including material losses by business line;
  - (f) closely integrating into the risk management processes of the institution and having an output which –
    - (i) is an integral part of the process of monitoring and controlling the financial organization's operational risk profile; and
    - (i) must play a prominent role in risk reporting, management reporting, and risk analysis.
- (6) Financial organizations shall have techniques for creating incentives to relevant employees to improve the management of operational risk.
- (7) Financial organizations shall regularly report on operational risk exposures, including material operational losses to its business unit management, senior management, its board of directors and the Central Bank as specified in a guideline
- (8) Financial organizations shall have procedures for taking appropriate action according to the information within the management reports in paragraph 4 (7).
- (9) The financial organization's operational risk management system shall be well documented.
- (10) The financial organization shall 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 shall include policies for the treatment of non-compliance issues.

(11) The operational risk management processes and assessment system of the financial organization shall be subject to annual validation and independent review by, at a minimum, the internal audit function of the financial organization and the review shall include both the activities of the business units and of the operational risk management function.

#### **SCHEDULE 4 (Regulation 16)**

##### **Provisions For The Calculation Of Capital Charges For Market Risk**

**Interpretation** 1. In this Schedule –

“basis risk” means the risk that the relationship between the prices of two similar, but not identical, instruments will alter through time;

“bought put option” means a short position;

“ought call option” means a long position;

“commodity” means a physical product which is or can be traded on a secondary market, including agricultural products, minerals and precious metals except gold, which is treated as foreign currency;

“commodity risk” means the uncertainties of future market values and of the size of the future income, caused by the fluctuation in the prices of commodities;

“directional risk” means the risk of loss arising from exposure to the direction of a reference asset or market;

“equity risk” means the risk of losses arising from changes in the value of that equity investment;

“foreign exchange risk” means the risk that a financial organization’s financial performance or position will be affected by fluctuations in the exchange rates between currencies;

“forward gap risk” means the risk that the forward price may change for reasons other than a change in interest rate;

“general market risk” means the risk of a loss arising from adverse changes in market prices including, a change in interest rates or official policy;

“interest rate risk” means the risk that movements in market interest rates cause an adverse effect on the financial condition of a financial organization;

“long position” means a position which gives or may give the financial organization a right or imposes or may impose an obligation on it to receive a payment or an asset. Bought call options and sold put options shall be covered by the definition of a long position;

“market risk” means the risk of losses in on- and off-balance-sheet positions arising from movements in market prices, including interest rates, exchange rates and equity values;

“net forward position” means all amounts to be received less all amounts to be paid under forward foreign exchange transactions, including currency futures and the principal on currency swaps not included in the spot position;

“net position” means the excess of the long over the short position in identical securities and derivatives;

“net spot position” means all asset items less all liability items, including accrued interest, denominated in the currency in question;

“non-convertible preference shares” means shares that do not possess an option or right to be converted to an ordinary preference equity share;

“short position” means a position which gives or may give the financial organization a right or imposes or may impose an obligation on it to make a payment or deliver an asset;

“sold call option” means a short position;

“sold put option” means a long position;

“specific risk” means the risk that the price of a given instrument will move out of line with similar instruments, due principally to factors related to its issuer; and

“the 1988 Accord” means the Basle Committee of Banking Supervision’s International Convergence of Capital Measurement and Capital Standards dated July 1988.

**Market Risk Charges**

2. (1) Capital charges for market risk shall be the sum of capital charges for interest rate risk, equity risk, foreign exchange risk and commodity risk.
- (2) Capital charges for interest rate risk and equity risk shall apply to current market value of items in the financial organization’s trading book.
- (3) Capital charges for foreign exchange risk and commodity risk shall apply to a financial organization’s total foreign exchange and commodity positions, whether in the trading or the banking book.
- (4) Financial organizations shall calculate capital charges-
  - (a) for foreign exchange risk and commodity risk; and
  - (b) for interest rate risk and equity risk where the value of securities and



associated derivatives that are marked to market represents 10 per cent or more of total on and off balance sheet assets.

3. For the purposes of the calculation of capital charges for market risk, the trading book shall be defined as comprising all securities and associated derivatives that are marked to market including such instruments in the available for sale portfolio.
4. For the purposes of the calculation of capital charges for market risk, market risk capital charges shall apply to non-trading instruments used to deliberately hedge trading activities but such instruments shall not be subject to specific market risk charges.
5. Capital charges shall be calculated as the sum of capital required for specific market risk and general market risk arising from a financial organization's debt and equity positions.

**Interest Rate Risk**

6. When measuring the risk of holding or taking positions in debt securities and other marked to market interest rate related instruments, the instruments covered shall include-
  - (a) all fixed-rate and floating-rate debt securities; and
  - (b) instruments that behave like them, including non-convertible preference shares.
7. A security which is subject of a repurchase or securities lending agreement shall be treated as if it were still owned by the lender of the securities.

**Convertible Bonds**

8. Convertible bonds, including debt issues or preference shares that are convertible into ordinary shares of the issuer, shall be treated as debt securities if they trade like debt securities and as equities if they trade like equities.

**Minimum Capital Requirement**

9.
  - (1) The minimum capital requirement for interest rate risk shall be the sum of capital charges for-
    - (a) specific risk of each security, whether it is a short or a long position; and
    - (b) general market risk where long and short positions in different securities or instruments can be offset.
  - (2) A financial organization's interest rate position risk requirement shall be the sum of the capital required for specific risk and general market risk for each currency in which the financial organization has an exposure.

**Specific Risk**

10. The specific risk charge shall be calculated by multiplying the absolute values of the debt position by their respective risk weight as follows-

Categories	Credit Rating	Specific Risk Capital Charge
Government	AAA to AA- A+ to BBB-	0.00% 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%

**Government Category**

- 11.** (1) For the purposes of paragraph 10, the government category includes all forms of government paper including bonds, Treasury bills and other short-term instruments.
- (2) The Central Bank may apply a specific risk weight to securities issued by a foreign government, including where the securities are denominated in a currency other than that of the issuing government.
- (3) When government paper, is denominated in the domestic currency and funded by the financial organization in the same currency, financial organizations may apply

the lower risk charge applied by the national supervisor in the particular jurisdiction.

**Qualifying and other category**

- 12.** (1) The qualifying category in paragraph 10 includes securities issued by public sector entities and zero percent risk weighted multilateral development banks and other securities that are -
- (a) rated investment grade by at least two credit rating agencies;
  - (b) rated investment grade by one credit rating agency and not less than investment grade by any other credit rating agency; or
  - (c) subject to the approval of the Central Bank, unrated, but deemed to be of comparable investment quality by the financial organization, and the issuer has securities listed on a recognized stock exchange.
- (2) The other category in paragraph 10 includes all debt securities that do not qualify as government or qualifying securities as referred to in paragraphs 11 and 12.

**Offsetting**

- 13.** (1) In measuring specific market risk, a financial organization may offset matched long and short positions in an identical issue including positions in derivatives.
- (2) For different issues where the issuer is the same, no offsetting shall be permitted between the different issues.

**Capital for general risks**

- 14.** (1) The capital requirements for general risk shall be the sum of –
- (a) the net short or long position of the relevant securities;
  - (b) a small proportion of the matched positions in each time-band in paragraph 15;
  - (c) a larger proportion of the matched positions across different time-bands in paragraph 15; and
  - (d) a net charge for positions in options.

**Time Bands and Assumed Changes in Yield**

- 15.** The following time bands and assumed charges in yield shall be utilized in the calculation of the capital charge -

Zone	Time-bands	Assumed Changes in Yield (%)
1	1 month or less	1.00
	1 to 3 months	1.00

	3 to 6 months	1.00
	6 to 12 months	1.00
2	1.0 to 1.9 years	0.90
	1.9 to 2.8 years	0.80
	2.8 to 3.6 years	0.75
3	3.6 to 4.3 years	0.75
	4.3 to 5.7 years	0.70
	5.7 to 7.3 years	0.65
	7.3 to 9.3 years	0.60
	9.3 to 10.6 years	0.60
	10.6 to 12 years	0.60
	12 to 20 years	0.60
	Over 20 years	0.60

**Determination  
of Capital  
Charge**

16. Financial organizations shall determine the capital charge as follows -

- (a) calculate the price sensitivity of each instrument in terms of a change in interest rates of between 0.6 and 1.0 percentage points depending on the maturity of the instrument as determined in accordance with paragraph 15;
- (b) slot the resulting sensitivity measures into a duration-based ladder with the fifteen time-bands in paragraph 15;
- (c) subject long and short positions in each time-band to a 5 per cent vertical disallowance designed to capture basis risk; and
- (d) carry forward the net positions in each time-band for horizontal offsetting subject to the disallowances in paragraph 17(1).

**Horizontal  
Disallowances**

17. (1) The following horizontal disallowance shall be utilized in the calculation of capital charge -

Zones	Time-Band	Capital charges required		
		Matched Position within each Zone	Matched Position between Adjacent Zones	Net open Position in Portfolio
1	1 month or less 1 to 3 months	40%		

	3 to 6 months 6 to 12 months			
2	1.0 to 1.9 years 1.9 to 2.8 years 2.8 to 3.6 years	30%	40%	100%
3	3.6 to 4.3 years 4.3 to 5.7 years 5.7 to 7.3 years 7.3 to 9.3 years 9.3 to 10.6 years 10.6 to 12 years 12 to 20 years Over 20 years	30%	40%	

(2) In the case of residual currencies the gross positions in each time-band shall be subject to the assumed change in yield set out in paragraph 17 (1) with no further offsets.

**Calculation of  
Capital Charges  
For Interest  
Rate  
Derivatives**

**18.** In the determination of capital charges for interest rate risk, all marked to market interest rate derivatives and off-balance sheet instruments which react to changes in interest rates, including forward rate agreements, other forward contracts, bond futures, interest rate and cross currency swaps and forward foreign exchange positions shall be included.

**General And  
Specific Market  
Risk For  
Derivatives**

**19.** (1) For the purpose of determining the general and specific market risk capital charge for interest rate derivatives, financial organizations shall convert derivatives into positions in the relevant underlying instrument.

(2) The amount on which general and specific market risk capital charge is to be calculated shall be the market value of the principal amount of the underlying or of the notional underlying obligation.

(3) Futures and forward contracts including forward rate agreements shall be treated as a combination of a long and a short position in a notional government security.

(4) The maturity of a future or a forward rate agreement shall be the period until delivery or exercise of the contract and, where applicable, the life of the underlying instrument.

(5) A future on a corporate bond index shall be included at the market value of the notional underlying portfolio of securities.

(6) Swaps shall be treated as two notional positions in government securities with relevant

maturities in paragraph 15.

- (7) Where a swap transaction attracts risk other than interest rate risk including equity or foreign exchange risks, the financial organization shall set aside capital for all sources of risk using the capital treatment set out in this Schedule for the respective categories of risk.
- (8) The separate legs of cross-currency swaps are to be reported in the relevant maturity ladders for the currencies in paragraph 15.

**Allowable  
offsetting of  
matched  
positions**

- 20.** Financial organizations may exclude from the interest rate maturity framework for both specific and general market risk, long and short positions both actual and notional in identical instruments with exactly the same issuer, coupon, currency and maturity.

**Offsetting Rules 21.**

- (1) A matched position in a future or forward and its corresponding underlying obligation may be fully offset, and shall be excluded from the calculation.
- (2) Notwithstanding paragraph 21(1), the leg of the future or forward representing the time to expiry of the future shall be reported.
- (3) When the future or the forward comprises a range of deliverable instruments, offsetting of positions in the future or forward contract and its underlying obligation is only permissible in cases where there is a readily identifiable underlying security which is most profitable for the trader, in accordance with the financial organization's investment policy, with a short position to deliver.
- (4) No offsetting shall be allowed between positions in different currencies.
- (5) The separate legs of cross-currency swaps or forward foreign exchange deals shall be treated as notional positions in the relevant instruments and included in the appropriate calculation for each currency.
- (6) Opposite positions in the same category of interest rate derivatives may be offset fully where the positions –
  - (a) relate to the same underlying instruments;
  - (b) are of the same nominal value; and
  - (c) are denominated in the same currency.

**Required  
Conditions**

- 22.** For the purpose of offsetting positions in paragraph 21(6) the following conditions shall be met-
  - (a) for futures, offsetting positions in the notional or underlying instruments to which

the futures contract relates must be for identical products and mature within seven days of each other;

(b) for swaps and forward rate agreements, the reference rate for floating rate positions must be identical and the coupon must differ by no more than 15 basis points; and

(c) for swaps future rate agreements and forwards the next interest fixing date or, for fixed coupon positions or forwards, the residual maturity, shall correspond within the following limits-

(i) if either instrument has an interest fixing date or residual maturity up to and including one month, the residual maturities shall be the same day for both instruments;

(ii) if either of the instruments has an interest fixing date or residual maturity greater than one month and up to and including one year, the residual maturities shall be within seven days of each other; or

(iii) if either of the instrument has an interest fixing date or residual maturity over one year, the residual maturities shall be within thirty days of each other.

**23** Subject to the Central Bank determining that it is satisfied as to the accuracy of the systems being used, a financial organization may be approved by the Central Bank to use alternative formulae to calculate the positions in paragraph 15.

**Specific risk for Interest Rate Derivatives** **24.** (1) Interest rate and currency swaps, forward rate agreements, forward foreign exchange contracts and interest rate futures shall not be subject to a specific risk charge.

(2) The exemption in paragraph (24)(1) shall also apply to futures on an interest rate index.

**Futures** **25.** For futures contracts where the underlying is a debt security, or an index representing a basket of debt securities, a specific risk charge shall apply according to the credit risk of the issuer as set out in the rules in paragraphs 10, 11 and 12.

**General market risk for Interest Rate Derivatives** **26.** General market risk shall apply to positions in all derivative products in the same manner as for cash positions, subject only to an exemption for fully or very closely matched positions in identical instruments as determined by the Central Bank.

- Capital Requirements for equity position risk**      **27.** Capital requirements for equity risk shall be the sum of capital charges calculated for -
- (a) the specific risk of holding a long or short position in an individual equity; and
  - (b) the general market risk of holding a long or short position in the market as a whole.
- Equities**      **28.** (1) Equity risk capital requirements shall apply to long and short positions in all instruments that exhibit market behavior including -
- (a) ordinary shares, whether voting or non-voting;
  - (b) convertible preference shares or securities that behave like equities;
  - (c) convertible debt securities which convert into equity instruments and are trading as equities;
  - (d) any other instruments exhibiting equity characteristics; and
  - (e) equity derivatives or derivatives based on above securities.
- (2) Long and short positions in identical equity issues may be reported on a net basis.
- (3) Equity risk capital charges shall not apply to non-convertible preference shares and shall be governed by paragraph 6.
- (4) The long and short position in identical equity issues shall be calculated on a market-by-market basis.
- (5) Equity securities listed in more than one country shall be allocated to either the country where the issuer is incorporated and listed or the country where the security was purchased or sold, but not both.
- Long and Short positions**      **29.** Calculations of the long and short position in paragraph 28 shall be expressed in the domestic currency equivalent of the denomination of the equity, converted at spot rates at the reporting date.
- Capital Charge**      **30.** (1) The capital charge for both specific and general market risk shall be 8 per cent.
- (2) Capital charges for equity risk shall be the sum of specific risk and general market risk.
- Equity Derivatives**      **31.** (1) Capital charges shall be determined for equity derivatives and off-balance-sheet positions which are affected by changes in equity prices shall be included in the measurement system, including futures and swaps on both individual equities and on stock indices.
- (2) Derivatives shall be converted into positions in the relevant underlying obligation.
- (3) Matched positions in each identical equity or stock index in each country may be fully offset, resulting in a single net short or long position to which the specific and



general market risk charges will apply.

**Calculation of Derivative Positions** of **32.** When calculating the specific and general market risk, positions in derivatives shall be converted into notional equity positions as follows -

- (a) futures and forward contracts relating to individual equities shall be reported at current market prices;
- (b) futures relating to stock indices shall be reported as the mark-to-market value of the notional underlying equity portfolio;
- (c) equity swaps shall be treated as two notional positions; and
- (d) equity options and stock index options and their associated hedges are excluded from the calculations performed for all other equity positions and a separate risk charge is obtained using the simplified approach under paragraph 41.

**Risk in relation to an Index** **33.** (1) In addition to general market risk, a further capital charge of 2 per cent shall apply to the net long or short position in an index contract comprising a diversified portfolio of equities.  
(2) The capital charge in paragraph 33(1) shall be applied to well-diversified indices as the Central Bank may determine.

**Minimum capital commodities position risk** **34.** (1) Minimum capital shall be determined to cover the market risk associated with holding positions in commodities, including precious metals except gold.  
(2) The total capital charge shall be calculated in respect of directional risk, basis risk, interest rate risk and forward gap risk.  
(3) The capital charge to cover directional risk shall be calculated as 15 per cent of the net open position.  
(4) The capital charge to protect the financial organization against basis risk, interest rate risk and forward gap risk shall be calculated as an additional 3 per cent of the financial organization's long and short gross position in that particular commodity.  
(5) In valuing the positions for the purposes of paragraph 34(4) financial organizations shall use the current spot price.

**Foreign exchange position risk** **35.** (1) Capital charges for foreign exchange risk shall be calculated to cover the risk of holding or taking positions in foreign currencies, including gold.

- (2) In calculating the capital requirement for foreign exchange risk financial organizations shall-
- (a) measure the exposure in a single currency position; and
  - (b) measure the risks inherent in its mix of long and short positions in different currencies.

**Measuring the exposure in a single currency**

- 36.** (1) The net open position in each currency of a financial organization shall be calculated by summing-
- (a) the net spot position;
  - (b) the net forward position;
  - (c) guarantees and similar instruments that are certain to be called and are likely to be irrecoverable;
  - (d) net future income or expenses not yet accrued but already fully hedged;
  - (e) any other item representing a profit or loss in foreign currencies; and
  - (f) the net delta-based equivalent of the total book of foreign currency options.
- (2) Positions in composite currencies shall be separately reported.
- (3) Notwithstanding paragraph 36(2) when measuring a financial organization's open positions, the composite currency shall be either treated as a currency in their own right or split into their component parts on a consistent basis.

**Treatment of interest, other income and expenses**

- 37.** For the purposes of calculating foreign exchange capital charges-
- (a) interest accrued
  - (b) expenses accrued;
  - (c) unearned but expected future interest that are fully hedged; and
  - (d) anticipated expenses that are fully hedged,
- shall be included in calculating the position.

**Measurement of forward currency and gold positions**

- 38.** (1) Forward currency and gold positions shall be valued at current spot market exchange rates.
- (2) When measuring their forward currency and gold positions, financial organizations that base their normal management accounting on net present values shall use the net present values of each position, discounted using current interest rates and valued at current spot rates.

**Foreign**

- 39.** (1) The nominal amount or net present value of the net position in each foreign

exchange risk  
for foreign  
currency  
positions and  
gold

currency and in gold shall be converted at spot rates into the reporting currency.

- (2) The overall net open position shall be measured by aggregating-
  - (a) the sum of the net short positions or the sum of the net long positions, whichever is the greater; and
  - (b) the net position short or long in gold, regardless of sign.
- (3) The capital charge shall be 10 per cent of the higher of either the net long currency positions or the net short currency positions plus the net position in gold.

Treatment of 40.  
Options

- (1) Option contracts and related hedging positions in the associated underlying instrument, commodity or index, cash or forward shall be subject to capital requirements.
- (2) Capital requirements for exposures in paragraph 40(1) shall be added to the capital requirements for interest rate risk, equity risk, foreign exchange risk and commodities risk.
- (3) In determining market risk capital charges for options--
  - (a) financial organizations which solely use purchased options may use the simplified method in paragraph 41; and
  - (b) Subject to the approval of the Central Bank both as to use and application where a financial organization also writes options they may use the scenario method in paragraph 42, unless all of their option positions are hedged by perfectly matched long positions in exactly the same options.

Simplified  
Method

**41.** Financial organizations which handle a limited range of purchased options may use the following simplified approach-

- (a) For long cash and long put short or cash and long call covered positions the capital charge shall be the market value of the underlying security multiplied by the sum of specific and general market risk weights for the underlying security less the amount the option is in the money if any bounded at zero; and
- (b) For long call or long put naked position options the capital charge shall be the lesser of the market value of the underlying security multiplied by the sum of specific and general market risk weights for the underlying security and the market value of the option

42. (1) For the purposes of the scenario method a financial organization shall have appropriate qualitative standards and shall make separate calculations of the specific risk and general market risk of options and their related hedging positions.
- (2) General risk charges shall be calculated on portfolios of options.
- (3) The total general market risk capital requirement for all option portfolios shall be the sum of the largest losses of individual option portfolios as the Central Bank may determine.
- (4) For the purposes of determining general market risk charges in the scenario method a financial organization shall construct a two-dimensional matrix for each of its options portfolios which include options and any related hedging positions grouped together as follows-
- (a) for interest rates, options on underlying instruments whose residual maturity is bounded by one of at least six groups of the time bands referred to in paragraph 42 (7) where no more than three contiguous time bands are grouped together;
- (b) for equities and equity indices, each national market;
- (c) for foreign currencies and gold, each currency pair and gold; and
- (d) for commodities, each individual commodity.
- (5) The financial organization shall evaluate the portfolio over a specified range above and below the current value of the underlying instrument, commodity, or index for the purposes of the first dimension of each matrix.
- (6) For interest rates the range is consistent with the assumed changes in yield for the time bands referred to in paragraph 42 (7). Financial organizations shall use the highest of the assumed changes in yield applicable to the time bands that it groups together.
- (7) The time bands and assumed changes in yield shall be as follows-

<b>Time band</b>	<b>Assumed changes in yield</b>	<b>Time band</b>	<b>Assumed change in yield</b>
Up to one month	1.00	3 up to 4 years	0.75
1 up to 3 months	1.00	4 up to 5 years	0.75
3 up to 6 months	1.00	5 up to 7 years	0.70
6 up to 12 months	1.00	7 up to 10 years	0.65
1 up to 2 years	0.90	10 up to 15 years	0.60

2 up to 3 years	0.80	15 up to 20 years	0.60
		Over 20 years	0.60

**Specific Risk of  
Options on Debt  
and Equity  
Securities**

- (8) The other ranges are  $\pm 8$  per cent for equities,  $\pm 8$  per cent for foreign exchange and gold, and  $\pm 15$  per cent for commodities.
- (9) For all option portfolios, at least seven observations including the current observation shall be used to divide the range into equally spaced intervals.
- (10) The second dimension of the matrix entails a change in the volatility of the underlying rate or price equal to  $\pm 25$  per cent of the current volatility.
43. (1) For the purposes of determining specific market risk charges in the scenario method, a financial organization shall calculate specific risk charges on each issue in which the institution has a net option position that is subject to interest rate risk or to equity risk.
- (2) Financial organizations shall calculate specific risk capital charges for interest rate options portfolios using the methodology in paragraphs 10, 11 and 12 and for equity options portfolios using the methodology in paragraphs 27, 28, 29, 30, 31, 32 and 33.
- (3) The specific risk charge for options on debt securities shall be calculated by multiplying the market value of the effective notional amount of the debt instrument that underlies an option by-
- the option's delta; and
  - by the specific risk factors in paragraph 10 that correspond to the category and residual term of the underlying debt instrument.
- (4) The specific risk charge for options on equity securities and options on an equity index shall be calculated by multiplying the market value of the effective notional amount of the equity instrument or equity index that underlies an option by-
- the option's delta; and then by-
  - 8%; or
  - 4% if the portfolio of equities and equity derivatives including options is both liquid and well-diversified as the Central Bank may determine; or
- (5) 2% if the option is based on an index of equities.
- (6) For the purpose of the calculation of capital charges for options the effective notional amount of an option is the market value of the stated underlying debt or equity

instrument or equity index adjusted to reflect any multiplier applicable to the contract's reference rate or, where there is no multiplier component, the market value of the stated underlying debt or equity instrument or the notional amount underlying an option on an equity index.

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