



CENTRAL BANK  

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*of* BELIZE

## **PILLAR 1 GUIDELINE**

**January 2020**

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## ABBREVIATIONS

ABCP	Asset-backed commercial paper
BCBS	Basel Committee on Banking Supervision
CAR	Capital adequacy ratio
CCF	Credit conversion factor
CCR	Counterparty credit risk
CDR	Cumulative default rate
CEM	Current exposure method
CET1	Common Equity Tier 1
CRA	Credit Risk Agency
CRM	Credit risk mitigation
ECAI	External credit assessment institution
EL	Expected loss
FX	Foreign currency
MDB	Multilateral development bank
PD	Probability of default
PF	Project finance
PSE	Public sector entity
RW	Risk weights
RWA	Risk-weighted assets
TB	Trading Book

# 1 INTRODUCTION

## 1.1 Authority

This guideline is issued by the Central Bank of Belize (Central Bank) in exercise of the powers conferred on it by section 7 of the Domestic Banks and Financial Institutions Act 2012 (DBFIA) and section 18 of the International Banking Act (IBA).

## 1.2 Purpose

This guideline outlines the overall framework adopted by the Central Bank for the calculation of minimum capital requirements for the Pillar 1 capital requirements and constituents of capital based on the Basel Framework, developed by the BCBS. The Central Bank aims to ensure that all banks maintain a level of capital that is consistent with the risks arising from their business activities.

## 1.3 Overview

Capital is the cornerstone of a bank's strength. It provides a buffer to absorb unanticipated losses incurred by a bank as a result of its activities and, in the event of problems, enables the bank to continue operating while those problems are addressed or resolved. The maintenance of adequate capital reserves by a bank can instil confidence in the financial soundness and stability of the bank by providing assurance that the bank will continue to honour its obligations to depositors and creditors.

The approach used by the Central Bank for assessing a bank's capital adequacy under Basel II/III focuses on the following elements:

- a) The components and quality of capital held by the bank to support these exposures<sup>1</sup>;
- b) Minimum capital requirements for credit risk under the standardised approach<sup>2</sup>, including CRM techniques<sup>3</sup>;
- c) Minimum capital requirements for operational risk under the Basel III standardised approach<sup>4</sup>; and
- d) Minimum capital requirements for market risk<sup>5</sup> arising from changes in market prices of interest rate sensitive products and stocks in the Trading Book, as well as commodities and foreign exchange in both the Trading and Banking Books.

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<sup>1</sup> Based on BCBS's: "*Basel III: A global regulatory framework for more resilient banks and banking systems*" - Section I: Definition of Capital, December 2010 (rev June 2011)

<sup>2</sup> Based on BCBS's: "*International Convergence of Capital Measurement and Capital Standards - A Revised Framework*", 2004 (rev. June 2006)

<sup>3</sup> Based on BCBS's: "*Basel III: Finalizing post-crisis reforms*", December 2017

<sup>4</sup> Based on BCBS's "*Basel III: Finalizing post-crisis reforms*", December 2017

<sup>5</sup> Based on BCBS's: "International Convergence of Capital Measurement and Capital Standards - A Revised Framework", 2004 (rev. June 2006) and BCBSs "*Minimum capital requirements for market risk*", January 2016

## 1.4 Minimum Capital Adequacy Requirement

The Central Bank requires all banks to maintain a capital adequacy ratio, at all times, of at least 9% and 10% for domestic and international banks, respectively. The capital adequacy ratio is calculated by dividing a bank's eligible capital base by its total risk-weighted exposures.

$$CAR = \frac{\text{Total eligible capital}}{\text{Total RWA}} \geq 9\%/10\%$$

Each domestic and international bank must maintain a minimum ratio of eligible Tier 1 capital to total risk-weighted exposures of 7 percent and 8 percent, respectively, and the predominant form of Tier 1 capital must be met with Common Equity Tier 1 (CET 1), by maintaining a minimum of 5.5% and 6.5%, respectively. These relationships can be expressed by the following simple formulas:

$$\text{Tier 1 ratio} = \frac{\text{Tier 1 capital}}{\text{Total RWA}} \geq 7\%/8\%$$

$$\text{CET 1 ratio} = \frac{\text{CET 1 capital}}{\text{Total RWA}} \geq 5.5\%/6.5\%$$

The Central Bank has established the absolute minimum requirement to be 9% and 10% for domestic and international banks, respectively. However, where it is deemed appropriate the Central Bank may require individual banks to increase this minimum based on several criteria, such as:

- a) The characteristics of the bank (size, risk profile, the volatility of its earnings);
- b) Exposure to risks not considered, such as Credit Concentration Risk, Interest Rate Risk in Banking Book, Liquidity Risk, Strategic Risk and Reputational Risk;
- c) Degree of diversification of activities and types of assets;
- d) The degree of concentration of counterparty exposure in a bank's portfolio;
- e) The experience and quality of management and other personnel;
- f) The adequacy of internal systems and controls; and
- g) Shareholder/ controller support and control.

## 1.5 Regulatory Reporting Requirements

All financial institutions licensed under the DBFIA and IBA must provide the Central Bank with reports on the components of their capital adequacy calculations on the bank return provided on a monthly basis for domestic and international banks (or more frequently if required.)

## 1.6 Commencement

These requirements shall come into effect on 1 January 2020.

## **2 SCOPE OF APPLICATION**

The scope of application of this framework includes, on a consolidated basis, domestic and international banks incorporated in Belize and regulated by the Central Bank under the DBFIA and IBA. In addition, the framework will include, on a fully consolidated basis, any holding company that is the parent entity within a banking group to ensure that the risk of the whole banking group is fully captured. A banking group, through consolidation, includes all majority-owned or controlled banking entities, and other relevant financial activities (both regulated and unregulated but excluding insurance activities) (see section 2 of the DBFIA). Any reference to a bank also includes reference to a bank holding company in respect of all the entities in the banking group on a consolidated basis.

In the case where banks have investments in majority-owned or controlled financial entities that are not consolidated for capital purposes, the equity and other regulatory capital instruments in those entities attributable to the group must be deducted, and the assets, liabilities, and third-party capital investments in the entity must be removed from the group's balance sheet. However, the Central Bank will assess by other means the adequacy of capital of the entity not included in the consolidation.

### **2.1 Treatment of Significant Minority Investments**

Banks should exclude equity and other regulatory investments, significant minority investments in banking, securities and other financial entities from the consolidated banking group's capital where control does not exist. However, banks may apply pro rata consolidation for joint ventures that are treated as pro-rata for accounting purposes. For purposes of determining significant investments, the pro-rata inclusion will be equity interest between 20% and 50%.

### **2.2 Treatment of Insurance Institutions**

Banks that own an insurance subsidiary involved in carrying on insurance business in principle, bear the full entrepreneurial risks of the subsidiary and should recognize on a group-wide basis, the risks included in the whole group. Banks should exclude from the consolidated group's capital, any equity and other regulatory capital investments in insurance subsidiaries and significant minority investments in insurance entities. Under the deduction approach, banks should exclude from their balance sheets relevant assets and liabilities, as well as any third-party capital investments in insurance subsidiaries. Banks should apply a 100% RW to investments in subsidiaries involved in insurance brokerage.

The Central Bank may consider alternative approaches that would include a group-wide perspective for determining capital adequacy and avoid double counting of capital, which is to apply a risk weight of 100% to investments in insurance subsidiaries.

The capital invested in a majority-owned or controlled insurance entity may exceed the amount of regulatory capital required for such an entity (leaving "surplus capital" within the insurance entity). Banks may recognize such surplus capital in calculating their capital adequacy, in limited circumstances where:

- a) Central Bank is satisfied that there is no legal, regulatory or other obstacle to the prompt transfer of the surplus capital out of the insurance subsidiary as required; and

- b) Such recognition would also have regard to the practical implications of a transfer e.g. in terms of exchange rate and taxation effects or the consequences for external credit assessment ratings.

Banks that are permitted to recognize surplus capital in insurance subsidiaries must publicly disclose the amount of such surplus capital recognized in its capital. Where banks have a majority ownership interest in an insurance entity (e.g. 50% or more but less than 100%), surplus capital recognized should be proportionate to the percentage interest owned. Banks will not be permitted to recognize surplus capital in significant minority-owned insurance entities (less than 50% ownership), as it is unlikely that the bank would be able to direct the transfer of the capital in an entity that it does not control.

For any non-consolidated financial subsidiaries of banks, the Central Bank will ensure that majority owned or controlled insurance subsidiaries, which are not consolidated and for which capital investments are deducted or subject to an alternative group-wide approach, are themselves adequately capitalized in order to reduce the possibility of future potential losses to the bank. In the event of a capital shortfall emerging, the Central Bank will monitor any corrective action taken by the subsidiary, and where timely remediation is not possible; the shortfall will be deducted from the bank's capital.

### **2.3 Significant Investments in Commercial Entities**

Banks must fully deduct the amount in significant minority and majority investments in commercial entities that exceed:

- a) 15% of the bank's capital for individual investments; and
- b) 60% of the bank's capital for the aggregate of all investments in commercial entities.

Investments in significant minority and majority-owned commercial entities below the materiality levels should receive a risk weight of 100%.

### **2.4 Deduction of Investments**

Any deduction of investments that is made pursuant to the scope of application will be deducted as 50% from Tier 1 and 50% from Tier 2 capital, respectively.



### 3 CAPITAL DEFINITION

This section provides a framework for the components of capital for banks, licensed under the DBFIA and IBA, and in line with Basel II and III requirements. It outlines the characteristics that an instrument must have in order to qualify and the adjustments to be made in determining the regulatory capital of a bank.

The following terms are defined for the purpose of these standards:

- a) **Going-concern capital** refers to capital against which losses can be written off while the bank continues to operate.
- b) **Gone-concern capital** refers to capital that would not absorb losses until such time as a bank is wound up, or the capital is otherwise written off or converted to ordinary shares.
- c) **Intangible assets** include, but are not limited to, copyright, patents, intellectual property and capitalized information technology software costs.
- d) **Net long positions** are the gross long positions net of short positions in the same underlying exposures, where the maturity of the short positions either match the maturity of the long positions, or have residual maturities of at least one year. They include netting positions in physical instruments and derivatives over the same underlying exposure (including those associated with looking through holdings of index securities).
- e) **Operating entity** is an entity set up to conduct business with clients, with the intention of earning a profit in its own right.
- f) **Related entity** as defined under Section 65 of the DBFIA<sup>6</sup>.

Banks are required to hold sufficient capital to mitigate the risks that arise from their businesses. To be eligible for inclusion in regulatory capital, the capital should have the following characteristics:

#### 3.1 Components of Capital

In order to be eligible for inclusion in regulatory capital, a bank's capital should have the following characteristics:

- a) Provide a permanent and unrestricted commitment of funds;
- b) Be freely available to absorb losses;
- c) Not impose any unavoidable servicing charges against earnings; and
- d) Rank behind the claims of depositors and other creditors in the event the bank is wound up.

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<sup>6</sup> Any person described in Subsections (2) to (7) of the DBFIA is a related party of a licensee.

Total regulatory capital shall consist of the sum of the following elements:

- a) Tier 1 Capital (going-concern capital), which will comprise:
  - i. Common Equity Tier 1 (CET1) capital; and
  - ii. Additional Tier 1 (AT1) capital.
- b) Tier 2 capital (gone-concern capital<sup>7</sup>).

For each of the categories above, there is an individual set of criteria that the instruments are required to meet before they can be included in the relevant category.

### **3.2 Limits and Minima**

Domestic and international banks shall, at all times maintain the minimum ratios as follows:

- a) CET 1 capital must be at least 5.5%/6.5%, respectively, of risk-weighted assets;
- b) Tier 1 capital must be at least 7.0%/ 8.0%, respectively, of risk-weighted assets;
- c) Total Capital (Tier 1 Capital + Tier 2 Capital) must be at least 9% or 10% of risk-weighted. assets.

For the purpose of determining the capital adequacy ratio of a bank, the total capital of the bank shall be the sum of Tier 1 and Tier 2 capital net of regulatory adjustments applied.

A bank must ensure that any component of capital included in its capital base satisfies, in both form and substance, all applicable requirements in this guidance for the particular category of capital in which it is included.

### **3.3 Capital Consolidation**

The Central Bank supervises the capital adequacy of locally incorporated banks (i.e. subsidiaries and stand-alone entities) on both a stand-alone (“solo”) and consolidated (“group”) basis, covering the global operations of the banks and its subsidiaries. Generally, a bank should consolidate the financial statements of all its subsidiaries in accordance with International Financial Reporting Standards for capital adequacy purposes. Exceptions should be approved by the Central Bank.

#### ***a) Ordinary Shares Issued by Consolidated Subsidiaries***

Minority interest arising from the issue of ordinary shares by a fully consolidated subsidiary of a bank may receive recognition in Common Equity Tier 1 capital only if:

- i. The instrument giving rise to the minority interest would, if issued by the bank, meet all the criteria for classification as ordinary shares for regulatory capital purposes; and

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<sup>7</sup> Gone-concern capital refers to capital that would not absorb losses until such time as a bank is wound up or the capital is otherwise written off or converted to ordinary shares.

- ii. The subsidiary that issued the instrument is itself a bank<sup>8</sup>.

The amount of minority interest recognized in CET1 capital will be calculated as follows:

- a) Total minority interest meeting the two criteria above minus the amount of the surplus CET1 of the subsidiary attributable to the minority shareholders.
- b) Surplus CET1 of the subsidiary is calculated as the CET1 of the subsidiary minus the lower of:
  - i. The minimum CET1 requirement of the subsidiary plus the capital conservation buffer; and
  - ii. The portion of the consolidated minimum CET1 requirements plus the capital conservation buffer that relates to the subsidiary.
- c) The amount of the surplus CET1 that is attributable to the minority shareholders is calculated by multiplying the surplus CET1 by the percentage of CET1 that is held by minority shareholders.

***b) Tier 1 Qualifying Capital Issued by Consolidated Subsidiaries***

Tier 1 capital instruments issued by a fully consolidated subsidiary of a bank to third party investors may receive recognition in Tier 1 capital only if the instruments would meet all the criteria for classification as Tier 1 capital. The amount of this Tier 1 capital that will be recognized in Additional Tier 1 capital will exclude amounts recognized in Common Equity Tier 1 capital.

The amount of capital that will be recognized in Tier 1 capital will be calculated as follows:<sup>9</sup>

- a) Total Tier 1 of the subsidiary issued to third parties minus the amount of the surplus Tier 1 of the subsidiary attributable to the third-party investors.
- b) Surplus Tier 1 of the subsidiary is calculated as the Tier 1 of the subsidiary minus the lower of:
  - i. The minimum Tier 1 requirement of the subsidiary plus the capital conservation buffer; and
  - ii. The portion of the consolidated minimum Tier 1 requirement plus the capital conservation buffer that relates to the subsidiary.
- c) The amount of the surplus Tier 1 that is attributable to the third-party investors is calculated by multiplying the surplus Tier 1 by the percentage of Tier 1 that is held by third-party investors.

***c) Tier 1 and Tier 2 Qualifying Capital Issued by Consolidated Subsidiaries***

Total capital instruments (i.e. Tier 1 and Tier 2 capital instruments) issued by a fully consolidated subsidiary of a bank to third party investors may receive recognition in Total Capital only if the instruments would, if

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<sup>8</sup> Minority interest in a subsidiary that is a bank is strictly excluded from the parent bank's CET1 if the parent bank or affiliate has entered into any arrangements to fund directly minority investment in the subsidiary whether through a special purpose vehicle or through another vehicle or arrangement. The treatment outlined above, is strictly available where all minority investments in the bank subsidiary solely represent genuine third party common equity contributions to the subsidiary.

issued by the bank, meet all of the criteria for classification as Tier 1 or Tier 2 capital. The amount of this Total Capital that will be recognized in Tier 2 will exclude amounts recognized in Common Equity Tier 1 capital and amounts recognized in Additional Tier 1 capital. The amount of this capital that will be recognized in consolidated Total Capital will be calculated as follows:

- a) Total capital instruments of the subsidiary issued to third parties minus the amount of the surplus Total Capital of the subsidiary attributable to the third party investors.
- b) Surplus Total Capital of the subsidiary is calculated as the Total Capital of the subsidiary minus the lower of:
  - i. The minimum Total Capital requirement of the subsidiary plus the capital conservation buffer; and
  - ii. The portion of the consolidated minimum Total Capital requirement plus the capital conservation buffer that relates to the subsidiary.
- c) The amount of the surplus Total Capital that is attributable to the third party investors is calculated by multiplying the surplus Total Capital by the percentage of Total Capital that is held by third party investors.

All items that are deducted from total capital are also excluded from total assets in calculating a bank's total on-balance sheet risk-weighted assets.

### **3.4 Common Equity Tier 1**

Common Equity Tier 1 (CET 1) capital consists of the sum of the following elements:

- a) Common shares issued by the bank that meet the criteria for classification as common shares for regulatory purposes;
- b) Stock surplus (share premium) resulting from the issue of instruments included in Common Equity Tier 1 capital;
- c) Statutory Reserve Fund maintained under Section 38 of the DBFIA.
- d) Retained Earnings, after deducting any interim or final dividends which have been declared by the Board of the reporting bank or banking group entity on any class of shares and any interim losses incurred since the end of the last financial reporting period<sup>9</sup>;
- e) Accumulated other comprehensive income (including interim profit or loss) and other disclosed reserves<sup>10</sup>;
- f) Common shares issued by consolidated subsidiaries of the bank and held by third parties (i.e. minority interest) that meet the criteria for inclusion in CET 1 capital; and
- g) Regulatory adjustments applied in the calculation of CET 1.

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<sup>9</sup> Any interim profits reported under this section must be audited.

<sup>10</sup> There is no adjustment applied to remove unrealized gains or losses recognized on the balance sheet from Common Equity Tier 1.

### *Criteria for inclusion in Common Equity Tier 1 Capital*

For an instrument to be included in CET 1 capital it must meet all of the criteria that follow for classification as common shares issued by the bank directly:

1. Represents the most subordinated claim in liquidation of the bank.
2. The investor is entitled to a claim on the residual assets that is proportional with its share of issued capital, after all senior claims have been repaid in liquidation (i.e. has an unlimited and variable claim, not a fixed or capped claim).
3. The principal is perpetual and never repaid outside of liquidation (setting aside discretionary repurchases or other means of effectively reducing capital in a discretionary manner that is allowable under relevant law).
4. The bank does nothing to create an expectation at issuance that the instrument will be bought back, redeemed or cancelled nor do the statutory or contractual terms provide any feature which might give rise to such an expectation.
5. Distributions are paid out of distributable items (retained earnings included). The level of distributions is not in any way tied or linked to the amount paid in at issuance and is not subject to a contractual cap (except to the extent that a bank is unable to pay distributions that exceed the level of distributable items).
6. There are no circumstances under which the distributions are obligatory. Nonpayment is therefore not an event of default.
7. Distributions are paid only after all legal and contractual obligations have been met and payments on more senior capital instruments have been made. This means that there are no preferential distributions, including in respect of other elements classified as the highest quality issued capital.
8. It is the form of issued capital that takes the first and proportionately greatest share of any losses as they occur<sup>11</sup>. Within the highest quality capital, each instrument absorbs losses on a going concern basis proportionately and *pari passu* with all the others.
9. The paid-in amount is recognized as equity capital (i.e. not recognized as a liability) for determining balance sheet insolvency.
10. The paid-in amount is classified as equity under the relevant accounting standards.
11. It is directly issued and paid-in<sup>12</sup> and the bank cannot directly or indirectly have funded the purchase of the instrument.
12. The paid in amount is neither secured nor covered by a guarantee of the issuer or related entity<sup>13</sup> or subject to any other arrangement that legally or economically enhances the seniority of the claim.
13. It is only issued with the approval of the owners of the issuing bank, either given directly by the owners or, if permitted by applicable law, given by the Board of Directors or by other persons duly authorized by the owners.
14. It is clearly and separately disclosed as equity on the bank's balance sheet prepared in accordance with the relevant accounting standards.

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<sup>11</sup> In cases where capital instruments have a permanent write-down feature, this criterion is still deemed to be met by common shares.

<sup>12</sup> Paid-in capital generally refers to capital that has been received with finality by the institution, is reliably valued, fully under the bank's control and does not directly or indirectly expose the bank to the credit risk of the investor.

<sup>13</sup> A related entity can include a parent company, a subsidiary or any other affiliates. A holding company is a related entity

## ***Regulatory Adjustments in the Calculation of CET1 Capital***

A bank must make the following regulatory adjustments to determine CET1 capital at the solo or consolidated level, as the case may be. Assets deducted from CET1 capital should not be included in RWAs.

### ***i. Valuation Adjustments***

Valuation adjustment is the umbrella name for adjustments made to the fair value of a derivative's contract to take into account funding, credit risk and regulatory capital costs. Dealers typically incorporate the costs associated with valuation adjustments into the price of a new trade.

### ***ii. Goodwill and Other Intangibles***

Any goodwill included in the valuation of capital investments in unconsolidated majority stake companies, shall be deducted in the calculation of CET1 capital. The full amount shall be deducted, net of any associated deferred tax liability that would be extinguished if the goodwill becomes impaired or derecognized under the applicable accounting standards.

Intangible assets<sup>14</sup> shall be deducted in the calculation of CET1 capital. The full amount shall be deducted, net of any associated deferred tax liability that would be extinguished if the intangible assets become impaired or derecognized under the applicable accounting standards.

Banks shall use the IFRS definition of intangible assets to determine which assets are classified as intangible and are thus required to be deducted.

### ***iii. Deferred Tax Assets***

Deferred tax assets (DTAs) that rely on future profitability of the bank to be realized are to be deducted in the calculation of CET1 capital. Deferred tax assets may be netted with associated deferred tax liabilities (DTLs) only if the DTAs and DTLs relate to taxes levied by the same taxation authority and offsetting is permitted by the relevant taxation authority. Where these DTAs relate to temporary differences (e.g. allowance for credit losses) the amount to be deducted is set out in the "threshold deductions" section below. All other such assets, e.g. those relating to operating losses, such as the carry forward of unused tax losses, or unused tax credits, are to be deducted in full net of deferred tax liabilities as described above. The DTLs permitted to be netted against DTAs must exclude amounts that have been netted against the deduction of goodwill, intangibles and defined benefit pension assets, and must be allocated on a pro rata basis between DTAs subject to the threshold deduction treatment<sup>15</sup> and DTAs that are to be deducted in full.

DTAs arising from any other source will be required to be deducted from CET1 capital as a prudent measure. An over-installment of tax or, in some jurisdictions, current year tax losses carried back to prior years may give rise to a claim or receivable from the government or local tax authority. Such

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<sup>14</sup> Intangible assets include but are not limited to copyright, patents, intellectual property and capitalized information technology software costs.

<sup>15</sup> Instead of a full deduction, the following items may each receive limited recognition when calculating Common Equity Tier 1, with recognition capped at 10% of the bank's common: (1) significant investments in the common shares of unconsolidated financial institutions (banks, insurance and other financial entities) as referred to in CAP30.29; (2) mortgage servicing rights; and (3) DTAs that arise from temporary differences.

amounts are typically classified as current tax assets for accounting purposes. The recovery of such a claim or receivable would not rely on the future profitability of the bank and would be assigned the relevant sovereign risk weighting.

**iv. *Cash Flow Hedge Reserve***

The amount of the cash flow hedge reserve that relates to the hedging of items that are not fair valued on the balance sheet (including projected cash flows) shall be derecognized in the calculation of CET1 capital. In this regard, positive amounts shall be deducted and negative amounts shall be added back. This treatment specifically identifies the element of the cash flow hedge reserve that is to be derecognized for prudential purposes.

**v. *Gain on Sale Related to Securitization Transactions***

Increases in equity capital resulting from securitization transactions (e.g., capitalized future margin income, gains on sale) should be deducted in the calculation of CET 1 capital.

**vi. *Cumulative Gains and Losses Due to Changes in Own Credit Risk on Fair Valued Financial Liabilities***

Derecognize in the calculation of CET1 capital, all unrealized gains and losses that have resulted from changes in the fair value of liabilities that are due to changes in the bank's own credit risk.

**vii. *Defined Benefit Pension Fund Assets and Liabilities***

Any defined benefit pension fund liabilities, as included in the balance sheet, shall be fully recognized in the calculation of CET1 capital. That is, it cannot be increased through derecognizing these liabilities.

For each defined benefit pension fund that is an asset on the balance sheet, the asset shall be deducted in the calculation of CET1 capital net of any associated deferred tax liabilities which would be extinguished if the asset becomes impaired or derecognized under the applicable accounting standards. Assets in the fund to which the bank has unrestricted and unfettered access may, with the prior approval of the Central Bank, offset the deduction. Such offsetting assets shall be given the RW they would receive if they were owned directly by the bank.

**viii. *Investment in Own Shares (Treasury Stock)***

All of a bank's investments in its own common shares (treasury stock), whether held directly or indirectly, will be deducted in the calculation of CET1 capital (unless already derecognized under IFRS). In addition, any own stock which the institution could be contractually obliged to purchase should be deducted in the calculation of CET1 capital. The treatment described will apply irrespective of the location of the exposure in the banking book or the trading book.

**ix. *Reciprocal Cross Holdings in the Capital of Banking, Financial and Insurance Entities***

Reciprocal cross holdings in common share capital (e.g. bank A holds shares of bank B and bank B in return holds shares of bank A) that are designed to artificially inflate the capital position of the bank shall be fully deducted in the calculation of CET1 capital.

**x. *Investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation and where the bank does not own more than 10% of the issued common share capital of the entity***

The regulatory adjustment described in this section applies to investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation and where the bank does not own more than 10% of the issued common share capital of the entity. In addition:

- Investments include direct, indirect and synthetic holdings of capital instruments. For example, banks should look through holdings of index securities to determine their underlying holdings of capital.
- Holdings in both the banking book and trading book are to be included. Capital includes common stock and all other types of cash and synthetic capital instruments (e.g. subordinated debt). It is the net long position that is to be included (i.e. the gross long position net of short positions in the same underlying exposure where the maturity of the short position either matches the maturity of the long position or has a residual maturity of at least one year); and
- Underwriting positions held for five working days or less can be excluded. Underwriting positions held for longer than five working days must be included.

If the capital instrument of the entity in which the bank has invested does not meet the criteria for CET1, AT1, or Tier 2 capital of the bank, the capital is to be considered common shares for the purposes of this regulatory adjustment.

- The bank may, with the prior approval of the Central Bank, temporarily exclude certain investments where these have been made in the context of resolving or providing financial assistance to reorganize a distressed institution.
- If the total of all holdings listed in the paragraph above in aggregate exceed 10% of the bank's common equity (after applying all other regulatory adjustments in full) then the amount above 10% is required to be deducted, applying a corresponding deduction approach. This means the deduction should be applied to the same component of capital for which the capital would qualify if it was issued by the bank itself. Accordingly, the amount to be deducted is to be calculated as follows:
  - i. Aggregate all of the bank's holdings which in aggregate exceed 10% of the bank's common equity (as per above) multiplied by the common equity holdings as a percentage of the total capital holdings (i.e. CET 1 capital).
  - ii. The same approach is to be applied for a bank's non-significant capital investments in financial sector entities that are to be deducted from AT 1 capital and Tier 2 capital.
  - iii. If a bank is required to make a deduction from a particular tier of capital and it does not have sufficient capital to make that deduction, the shortfall will be deducted from the next higher tier of capital (for example, if an institution n does not have sufficient AT 1 capital to satisfy the deduction, the shortfall will be deducted from CET 1 capital).
  - iv. The amounts of such capital investments that are below the threshold (i.e. do not exceed the 10%) and are not deducted shall continue to be risk weighted according to the banking and trading book rules.



***xi. Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation***

The regulatory adjustment described in this section applies to investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation where the bank owns more than 10% of the issued common share capital of the issuing entity or where the entity is an affiliate<sup>16</sup> of the bank. In addition:

- Direct, indirect and synthetic holdings of capital instruments. For example, banks should look through holdings of index securities to determine their underlying holdings of capital.
- Holdings in both the banking book and trading book are to be included. Capital includes common stock and all other types of cash and synthetic capital instruments (e.g. subordinated debt). It is the net long position that is to be included (i.e. the gross long position net of short positions in the same underlying exposure where the maturity of the short position either matches the maturity of the long position or has a residual maturity of at least one year).
- Underwriting positions held for five working days or less can be excluded. Underwriting positions held for longer than five working days must be included.
- If the capital instrument of the entity in which the bank has invested does not meet the criteria for CET 1, Additional Tier 1, or Tier 2 capital of the bank, the capital is to be considered common shares for the purposes of this regulatory adjustment.
- Banks may, with the prior approval of the Central Bank, temporarily exclude certain investments where these have been made in the context of resolving or providing financial assistance to reorganize a distressed institution.

All investments included above that are not common shares must be fully deducted from the corresponding tier of capital. This means the deduction should be applied to the same tier of capital for which the capital would qualify if it were issued by the institution itself (e.g. investments in the Additional Tier 1 capital of other entities must be deducted from the institution's Additional Tier 1 capital).

If a bank is required to make a deduction from a particular tier of capital and it does not have sufficient capital to make that deduction, the shortfall will be deducted from the next highest tier of capital (e.g. if an institution does not have sufficient Additional Tier 1 capital to satisfy the deduction, the shortfall will be deducted from CET 1 capital).

Investments included above that are common shares will be subject to the threshold deductions as described in the next section.

***xii. Threshold deductions***

- All of the bank's holdings in entities where the bank owns more than 10% of common equity (i.e. significant investments in the common shares of unconsolidated financial institutions) of the individual entity will each receive limited recognition when calculating CET 1. The recognition will be capped at 10% of the bank's common equity;
- Mortgage servicing rights (MSRs), including those related to consolidated subsidiaries,

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<sup>16</sup> An affiliate of a bank is defined as a company that controls, or is controlled by, or is under common control with, the bank. Control of a company is defined as (1) ownership, control, or holding with power to vote 20% or more of a class of voting securities of the company; or (2) consolidation of the company for financial reporting purposes.

- subsidaries deconsolidated for regulatory capital purposes, and the proportional share of MSRs in joint ventures subject to proportional consolidation or equity method accounting; and
- Deferred tax assets arising from temporary differences.

A bank must deduct the amount by which the aggregate of the three items above exceeds 15% of its CET1 capital (calculated prior to the deduction of these items but after application of all other regulatory adjustments applied in the calculation of CET 1 capital). The items included in the 15% aggregate limit are subject to full disclosure. As of 1 January 2020, regulatory adjustments (i.e. deductions and prudential filters) including the amounts above the 15% limit for significant investments in financial institutions, mortgage servicing rights, and deferred tax assets from temporary differences will be fully deducted from Common Equity Tier 1 capital.<sup>17</sup>

The amount of the three items that are not deducted in the calculation of CET 1 capital will be risk weighted at 250%.

### **xiii. Other Adjustments**

A bank shall make any other deductions required under any other guidelines and/or as may be required by the Central Bank.

## **3.5 Additional Tier 1 Capital**

Additional Tier 1 (AT 1) capital consists of the sum of the following elements:

- Instruments issued by the bank that meet the criteria for inclusion in AT1 capital (and are not included in CET 1);
- Stock surplus (share premium) resulting from the issue of instruments included in AT1 capital;
- Instruments issued by consolidated subsidiaries of the bank and held by third parties that meet the criteria for inclusion in AT1 capital and are not included in CET 1; and
- Regulatory adjustments applied in the calculation of AT1 Capital.

### ***Criteria for inclusion in Additional Tier 1 Capital***

An instrument must satisfy the following criteria to be included in Additional Tier 1 Capital:

1. The instrument is issued and fully paid-in in cash;
2. Subordinated to depositors, general creditors and subordinated debt of the bank;
3. Is neither secured nor covered by a guarantee of the issuer or related entity or other arrangement that legally or economically enhances the seniority of the claim vis-à-vis the bank's depositors and/or creditors.
4. Is perpetual, i.e. there is no maturity date and there are no other incentives to redeem.

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<sup>17</sup> See Annex 2 of the BCBS “*Basel III: A global regulatory framework for more resilient banks and banking systems*” June 2011 document for an example.

5. May be callable at the initiative of the issuer only after a minimum of five years from the issue date, subject to the following requirements:
  - a) A call option can be exercised only with prior approval from the Central Bank;
  - b) The institution shall not create an expectation that the call option will be exercised; and
  - c) The institution must not exercise a call option unless:
    - i. The institution replaces the called instrument with capital of the same or better quality and the replacement of this capital is done at conditions which are sustainable for the income capacity of the bank; or
    - ii. The institution demonstrates that its capital position is well above the minimum capital requirements after the call option is exercised.
6. Any repayment of principal (e.g. through repurchase or redemption) must be with prior approval of the Central Bank and banks should not assume or create market expectations that supervisory approval will be given;
7. With regard to dividend or coupon discretion;
  - a) the institution must have full discretion at all times to cancel distributions/payments;
  - b) cancellation of discretionary payments must not be an event of default;
  - c) the institution must have full access to cancelled payments to meet obligations as they fall due;
  - d) cancellation of distributions/payments must not impose restrictions on the institution except in relation to distributions to common stockholders;
8. Dividends/coupons on the instrument must be paid out of distributable items;
9. The instrument cannot have a credit sensitive dividend feature, that is a dividend/coupon that is reset periodically based in whole or in part on the credit standing of the institution or the group or any related party;
10. The instrument cannot contribute to liabilities exceeding assets if such a balance sheet test forms part of national insolvency law governing the provisions of the capital instrument;
11. Where the instrument is classified as a liability for accounting purposes, it must have principal loss absorption through either (i) conversion to common shares at an objective pre-specified trigger point; or (ii) a write-down mechanism that allocates losses to the instrument at a pre-specified trigger point. The write-down will have the following effects:
  - a) Reduces the claim of the capital instrument in liquidation of the bank;
  - b) Reduces the amount to be repaid when a call option is exercised; and
  - c) Partially or fully reduces dividend or coupon payments on the capital instrument.
12. Neither the bank nor a related party over which the bank exercises control or significant influence can purchase the instrument, nor can the bank directly or indirectly have funded the purchase of the instrument.

13. The instrument cannot have any features that hinder recapitalization, such as provisions that require the issuer to compensate investors if a new instrument is issued at a lower price during a specified period.
14. If the instrument is not issued out of an operating entity or the holding company in the consolidated group, proceeds must be immediately available without limitation to an operating entity (an entity set up to conduct business with clients with the intention of earning a profit) in its own right or the holding company in the consolidated group in a form which meets or exceeds all of the other criteria for inclusion in AT1 capital.
15. The main features of the capital instruments are disclosed clearly and accurately.
16. The agreement governing the issuance of the capital instrument shall not be changed without the prior approval of the Central Bank where such proposed changes could impact its eligibility as AT1 capital.

***Regulatory Adjustments in the Calculation of Additional Tier 1 Capital***

A bank shall apply the following regulatory adjustments in the calculation of AT1 capital at the solo or consolidated level, as the case may be.

Where the amount of AT1 capital is insufficient to cover the amount of deductions required to be made from this category of capital, the shortfall must be deducted from CET1 capital.

***i. Investment in own Additional Tier 1 Capital***

Investments in the bank's own AT1 capital instruments, whether held directly or indirectly by the bank or any of its banking group entities, shall be deducted in the calculation of AT1 capital. Any AT1 capital instruments, which the reporting bank or any of its banking group entities could be contractually obliged to purchase, shall also be included in the deduction. This adjustment shall apply to exposures in both the banking and trading books.

***ii. Reciprocal cross-holdings in AT1 instruments***

Reciprocal cross-holdings of capital that are designed to artificially inflate the capital position of banks will be deducted in full. Banks must apply a "corresponding deduction approach" to such investments in the capital of other banks, other financial institutions and insurance entities. This means that the deduction should be applied to the same component of capital for which the capital would qualify if it was issued by the bank itself.

***iii. Investments (significant and non-significant investments) in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation***

These comprise of:

- a) Direct, indirect and synthetic holdings of AT1 capital instruments in banking, financial and insurance entities. This includes:
  - Holdings of AT1 capital instruments held in the banking book;

- Net long positions<sup>18</sup> in AT1 capital instruments<sup>19</sup> held in the trading book; and
- Underwriting positions in AT1 capital instruments held for more than five working days.

b) The amount of such capital investments to be deducted in the calculation of AT1 capital shall be in accordance with paragraph ix. (page 16) and paragraph x. (page 177).

If the institution does not have sufficient Tier 2 capital needed to make the required deductions from Tier 2 capital, the shortfall must be deducted from Additional Tier 1 capital.

### **3.6 Tier 2 Capital**

Tier 2 capital includes other components of capital that, to varying degrees, fall short of the quality of Tier 1 capital, but nonetheless contribute to the overall strength of a bank and its capacity to absorb losses. Tier 2 capital (prior to regulatory adjustments) consists of the sum of the following elements:

- a) Instruments issued by the institution that meet the criteria for inclusion in Tier 2 capital (and are not included in Tier 1 capital);
- b) Stock surplus (share premium) resulting from the issue of instruments included in Tier 2 capital;
- c) Instruments issued by consolidated subsidiaries of the bank and held by third parties that meet the criteria for inclusion in Tier 2 capital and are not included in Tier 1 capital;
- d) Revaluation Reserves for long-term assets whose value fluctuate;
- e) Certain loan loss provisions such as general provisions/general loan-loss reserve; and
- f) Regulatory adjustments applied in the calculation of Tier 2 capital.

#### ***Criteria for inclusion in Tier 2 Capital***

The objective of Tier 2 capital is to provide loss absorption on a gone-concern basis. The following sets out the minimum set of criteria for an instrument to meet or exceed in order for it to be included in Tier 2 capital.

1. The instrument should be issued by the institution and fully paid-in in cash.
2. The instrument is subordinated to depositors and general creditors of the institution.
3. Is neither secured nor covered by a guarantee of the issuer or related entity or other arrangement that legally or economically enhances the seniority of the claim vis-à-vis depositors and general bank creditors.
4. The instrument must have a minimum original maturity of at least five years and there are no step-ups or other incentives to redeem.
5. The amount of the instrument that will be eligible for inclusion in Tier 2 capital shall be

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<sup>18</sup> 'Net long positions' are the gross long positions net of short positions in the same underlying exposures where the maturity of the short positions either match the maturity of the long positions or have residual maturities of at least one year. They include netting positions in physical instruments and derivatives over the same underlying exposure (including those associated with looking through holdings of index securities).

<sup>19</sup> This includes investments in capital instruments resulting from the holdings of index securities. Financial institutions are permitted to net long short positions in the same index security subject to maturity matching provisions.

amortized on a straight-line basis as follows:

<b>Years to Maturity</b>	<b>Amount Eligible for Inclusion in Tier 2 Capital</b>
5 years or more	100 percent
4 years and less than 5 years	80 percent
3 years and less than 4 years	60 percent
2 years and less than 3 years	40 percent
1 year and less than 2 years	20 percent
Less than 1 year	0 percent

6. The instrument may be callable at the initiative of the issuer only after a minimum of five years, subject to the following requirements:
  - a) To exercise a call option a bank must receive approval of the Central Bank;
  - b) A bank must not do anything that creates an expectation that the call will be exercised; and
  - c) Banks must not exercise a call unless:
    - i. They replace the called instrument with capital of the same or better quality and the replacement of this capital is done at conditions which are sustainable for the income capacity of the bank; or
    - ii. The bank demonstrates that its capital position is well above the minimum capital requirements after the call option is exercised.
7. The investor must have no rights to accelerate the repayment of future scheduled payments (coupon or principal), except in bankruptcy and liquidation.
8. The instrument cannot have a credit sensitive dividend feature, that is a dividend/coupon that is reset periodically based in whole or in part on the credit standing of the bank, or the group or any related party.
9. Neither the bank nor a related party over which the bank exercises control or significant influence can purchase the instrument, nor can the bank directly or indirectly have funded the purchase of the instrument.
10. If the instrument is not issued out of an operating entity<sup>20</sup> or the holding company in the consolidated group, proceeds must be immediately available without limitation to an operating entity or the holding company in the consolidated group in a form that meets or exceeds all of the other criteria for inclusion in Tier 2 capital.

***Contributed / Stock surplus (share premium) resulting from the issue of instruments included in Tier 2 capital***

Contributed / Stock surplus (i.e. share premium) that is not eligible for inclusion in Tier 1 capital, will only be permitted to be included in Tier 2 capital if the shares giving rise to the contributed/stock surplus are permitted to be included in Tier 2 capital.

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<sup>20</sup> An operating entity is an entity set up to conduct business with clients with the intention of earning a profit in its own right.

### ***General provisions/general loan-loss reserves***

Provisions or loan-loss reserves held against unidentified losses are freely available to meet losses which subsequently materialize and therefore qualify for inclusion within Tier 2 capital. Provisions ascribed to identified deterioration of particular assets or known liabilities, whether individual or grouped, should be excluded. Furthermore, general provisions/general loan-loss reserves eligible for inclusion in Tier 2 capital will be limited to a maximum of 1.25% of credit RWAs calculated under the Standardised Approach.

### ***Regulatory Adjustments to Tier 2 Capital***

Net Tier 2 capital is defined as Tier 2 capital including all regulatory adjustments, but may not be lower than zero. If the total of all Tier 2 deductions exceeds Tier 2 capital available, the excess must be deducted from Tier 1 capital.

A bank shall apply the following regulatory adjustments in the calculation of Tier 2 capital at the solo or consolidated level, as the case may be, in accordance with the transitional arrangements (no more than five years) as set out in the BCBS June 2011.

### ***Investment in own Tier 2 Capital***

Investments in the institution's own Tier 2 capital instruments, whether held directly or indirectly by the institution or any of its banking group entities, shall be deducted in the calculation of Tier 2 capital. Any owned Tier 2 capital instruments, which the reporting institution or any of its banking group entities could be contractually obliged to purchase, shall also be included in the deduction. This adjustment shall apply to exposures in both the banking and trading books.

### ***Reciprocal cross-holdings in Tier 2 capital instruments***

Reciprocal cross-holdings of capital that are designed to artificially inflate the capital position of banks will be deducted in full. Banks must apply a "corresponding deduction approach" to such investments in the capital of other banks, other financial institutions and insurance entities. This means the deduction should be applied to the same component of capital for which the capital would qualify if it was issued by the bank itself.

### ***Investments (significant and non-significant investments) in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation***

These comprise of:

- i. Direct, indirect and synthetic holdings of Tier 2 capital instruments in banking, financial and insurance entities. This includes:
  - Holdings of Tier 2 capital instruments held in the banking book;
  - Net long positions in Tier 2 capital instruments held in the trading book; and
  - Underwriting positions in Tier 2 capital instruments held for more than five working days.
- ii. The amount of such capital investments to be deducted in the calculation of Tier 2 capital shall be in accordance with paragraphs ix. and x. in section 3.4 above.

## **3.7 Additional Reporting Requirements**

A bank must ensure that any component of capital included in its capital base satisfies, in both form and

substance, all applicable requirements prescribed for the relevant category of capital, in which it is included.

The Central Bank may, in writing, require a bank to:

- a) Exclude from its regulatory capital any component of capital that in the opinion of the Central Bank does not represent a genuine contribution to the financial strength of the bank; or
- b) Reallocate to a lower category of capital any component of capital that in the opinion of the Central Bank does not fully satisfy the requirements for the category of capital to which it was originally allocated.
- c) Provide the Central Bank, as soon as practicable, with copies of documentation associated with the issue of Tier 1 and Tier 2 capital instruments and provide a description of the main features of the capital instrument issued.
- d) Notify the Central Bank prior to any subsequent modification of the terms and conditions of an instrument that may affect its eligibility to continue to qualify as regulatory capital.



## 4 CREDIT RISK MINIMUM CAPITAL REQUIREMENT

The Basel Committee provides two alternatives for the application of capital charges for credit risk:

1. The Standardised Approach which provides a standardised methodology using the risk ratings assigned by eligible external credit assessment institutions; and
2. The Internal Ratings Based Approach, which allows banks to implement their own internal ratings system subject to the approval of national supervisors. The Central Bank has opted to utilize the Standardised Approach for determining the capital charge for credit risk.

The following section sets out the minimum capital requirements for credit risk exposures in the Banking Book by establishing prescribed risk weights. Banks must apply the prescribed RW to both on-balance sheet and off-balance sheet exposures. Exposures are to be risk weighted net of specific provisions. RWs will be based on the risk rating assigned by external credit assessment institutions (ECAIs)<sup>21</sup> deemed eligible by the Central Bank. *Annex I: External Credit Assessment* outlines the criteria to be used in recognizing an ECAI as eligible for capital adequacy purposes. It also outlines key issues related to the use of ratings assigned by eligible ECAIs.

### 4.1 Risk Weight Categories

### 4.2 Cash items

A 0% RW will be applied to cash. Gold bullions, held in the institution's own vaults or on an allocated basis to the extent backed by bullion liabilities, will also be risk weighted at 0%. Gold bullion – other which is not on the premises of the bank will be risk-weighted at 100%. The 20% RW will apply to cash items in the process of collection.

### 4.3 Claims on Sovereigns

Claims on sovereigns and their Central Banks will be risk weighted as follows:

<b>Credit Assessment</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%

The Central Bank will allow a 0% risk weight to be applied to bank exposures to their sovereign (or central bank) of incorporation, when such exposures are denominated and funded in BZD or USD<sup>22</sup>. Banks with exposures (that are funded and denominated in the domestic currency) to other sovereigns (i.e. overseas central governments or central banks) may apply the preferential RW assigned to those sovereign exposures by their central banks.

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<sup>21</sup> Also, known as Credit Rating Agencies (CRAs). The notations follow the methodology used by one institution, Standard & Poor's and is an example only; other external credit assessment institutions could equally well be used. The ratings used throughout this document, therefore, do not express any preferences or determinations on external assessment institutions by the Central Bank.

<sup>22</sup> This lower RW may be applied to the risk weighting of collateral and guarantees.

Banks will apply a 0% RW to claims on the Bank for International Settlements (BIS), the International Monetary Fund (IMF), the European Central Bank, the European Stability Mechanism, and the European Financial Stability Facility.

#### 4.3.1 Claims on Non-Central Government Public Sector Entities

Claims on PSEs will be assigned a RW that is one category less favorable than the sovereign RW:

<b>Credit Assessment</b>	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
<b>PSE RW</b>	20%	50%	100%	100%	150%	100%

The Central Bank will allow a 20% risk weight to be applied to bank exposures to PSEs, when such exposures are denominated in BZ\$ and funded in BZ\$. Claims on a domestic PSE which are guaranteed by the central government may be assigned the RW of the sovereign on the condition that the guarantee must be explicit, unconditional, legally enforceable and irrevocable. PSEs whose major shareholder is the state, a regional authority or a local authority will be treated as a commercial undertaking where the entity operates like a corporate in a competitive market; claims on such PSEs will be risk weighted as claim on corporates.

#### 4.3.2 Claims on Multilateral Development Banks

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

<b>Credit Assessment</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%	100%

Claims on highly rated MDBs that meet the following criteria<sup>23</sup> will receive a RW of 0%:

- very high quality long term issuer ratings;
- the MDB's shareholder structure is comprised of a significant proportion of sovereigns with long-term issuer credit assessments of AA- or better, or the majority of the MDB's fund-raising is in the form of paid-in equity/capital and there is little or no leverage;
- strong shareholder support demonstrated by the amount of paid-in capital contributed by the shareholders; the amount of further capital the MDBs have the right to call, if required, to repay their liabilities; and continued capital contributions and new pledges from sovereign shareholders;

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<sup>23</sup> These criteria are established by the Basel Committee on Banking Supervision who will continue to evaluate eligibility on a case-by-case basis. MDBs currently eligible for a 0% RW are: the World Bank Group comprised of the International Bank for Reconstruction and Development (IBRD) and the International Finance Corporation (IFC), the Asian Development Bank (ADB), the African Development Bank (AfDB), the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IADB), the European Investment Bank (EIB), the European Investment Fund (EIF), the Nordic Investment Bank (NIB), the Caribbean Development Bank (CDB), the Islamic Development Bank (IDB), and the Council of Europe Development Bank (CEDB) and other multilateral lending institutions or regional development institutions in which the Government of Belize is a shareholder or contributing member.

- adequate level of capital and liquidity; and,
- strict statutory lending requirements and conservative financial policies, which would include among other conditions a structured approval process, internal creditworthiness and risk concentration limits, large exposures approval by the board or a committee of the board, fixed repayment schedules, effective monitoring of use of proceeds, status review process, and rigorous assessment of risk and provisioning to loan loss reserve.

### 4.3.3 Claims on banks

No claim on an unrated bank, except for self-liquidating letters of credit, may receive a risk weight lower than that applied to claims on its sovereign of incorporation.

#### *Maturity more than three months*

RWs for banks will be based on the external credit assessment for each institution. Unrated banks will be risk-weighted at 100%. Accordingly, claims on banks (with a maturity of more than three months) will be risk weighted as follows:

<b>Credit Assessment</b>	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
<b>RW long term</b>	20%	50%	50%	100%	150%	100%

#### *Maturity less than three months*

Claims on banks with an original maturity of three months or less will be treated as a short-term claim. Short-term claims on banks will be assigned a preferential RW that is one category more favorable than claims on banks with a maturity more than three months, subject to a floor of 20%, as follows:

<b>Credit Assessment</b>	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
<b>RW short term</b>	20%	20%	20%	50%	150%	100%

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

Short-term claims on banks that are funded and denominated in the domestic currency may be assigned a preferential RW that is one category more favorable than that assigned to claims on the sovereign, subject to a floor of 20%.

### 4.3.4 Claims on securities firms

Claims on securities will be risk weighted at 100%.

#### **4.3.5 Claims on corporates, insurance companies, and other financial corporates**

All corporate claims will be risk weighted at 100% without regard to external ratings. However, the Central Bank reserves the right to increase the standard RW for these claims where it determines that a higher RW is warranted by the overall default experience.

#### **4.3.6 Claims included in the regulatory retail portfolio (individuals or small business)**

Claims that qualify under the regulatory retail portfolio may receive a 75% RW. To qualify under the regulatory retail portfolio the exposure must meet the following criteria:

- a) Orientation Criterion - The exposure is to an individual person, persons, or small business;
- b) Product Criterion - The exposure takes the form of any of the following:
  - i. Revolving credits and lines of credit (including credit cards and overdrafts);
  - ii. Personal term loans and leases (e.g. installment loans, auto loans and leases, student and educational loans, personal finance); or
  - iii. Small business facilities and commitments that satisfy the criteria as determined by Belize Trade and Investment Development Service.

Securities (such as bonds and equities), whether listed or not, must be excluded from this category. Mortgage loans must also be excluded to the extent that they qualify for treatment as claims secured by residential property.

- c) Granularity Criterion – the Central Bank must be satisfied that the regulatory retail portfolio is sufficiently diversified to a degree that reduces the risks in the portfolio.
- d) Low value of individual exposures – the maximum aggregated outstanding retail exposure to one counterparty cannot exceed an absolute threshold of BZ\$250,000 or its equivalent in a foreign currency. Small business loans extended through or guaranteed by an individual are subject to the same exposure threshold.

Claims that do not satisfy the above criteria will be risk weighted at 100%. In addition, the Central Bank will regularly review the 75% RW to ensure that it is not too low based on the default experience for these types of exposures. Past due loans and claims secured by residential property are excluded from the regulatory retail portfolio for risk weighting purposes.

#### **4.3.7 Claims secured by residential property**

Loans secured by mortgages on residential property (residential mortgage loans) that is or will be occupied by the borrower or that is rented and is not past due for more than 90 days, will be risk weighted at 50%. In addition, such claims should be fully secured by a first priority charge. If the rental is a multifamily residential building where the prospects for repayment and recovery on the exposure depend primarily on the cash flows generated by the asset, it would be risk weighted at 100%.

Where a residential mortgage loan does not satisfy the previous constraints, a 100% RW must be applied. The Central Bank will maintain under review the default experience with such claims to determine the continuing appropriateness of the concessionary weighting.

### 4.3.8 Claims secured by commercial property

A RW of 100% will be applied to claims secured by commercial real estate.

### 4.3.9 Securitization exposures<sup>24</sup>

Banks will require authorization from the Central Bank to engage in securitizations. If authorization is granted, the risk-weighted asset amount of a securitization tranche will be computed by multiplying the amount of the position by the appropriate RW determined in accordance with the following tables:

Short-term ratings - For exposures with short-term ratings, the following RWs will apply:

<b>External credit assessment</b>	A-1/P-1	A-2/P-2	A-3/P-3	All other ratings
<b>Risk weight</b>	20%	50%	100%	1250%

Long-term ratings - Specifically, for exposures with long-term ratings, RWs will be determined according to the following table:

<b>External credit assessment</b>	AAA to AA-	A+ to A-	BBB + to BBB-	BB+ to BB-	All other ratings
<b>Risk weight</b>	20%	50%	100%	350%	1250%

### 4.3.10 Defaulted Exposures

#### *Unsecured Portions of Defaulted Exposure*

The unsecured portion of any exposure (other than a qualifying residential mortgage loan) that is past due for more than 90 days, net of specific provisions, will be risk-weighted as 100% RW when specific provisions are 20% or more of the outstanding amount of the exposure.

#### *Secured Portions of Defaulted Exposures*

For the purpose of defining the secured portion of the defaulted exposure, eligible collateral and guarantees will be the same as for credit risk mitigation purposes (see Section Credit Risk Mitigation). For the secured portion of defaulted exposures, banks should apply the RW of the eligible collateral or guarantees, as if they were not past due, provided the credit risk mitigation criteria set out in Section Credit Risk Mitigation continues to be satisfied.

Qualifying residential mortgage loans (treated at CLAIMS secured by residential property) that are past due for more than 90 days will be risk weighted at 100%, net of specific provisions.

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<sup>24</sup> A 1250% RW is equivalent to deduction from capital as  $8\% \times 1250\% = 100\%$ . Where deductions of investments are made, the deductions will be 50% from Tier 1 and 50% from Tier 2 Capital.

### 4.3.11 Other exposures

A RW of 100% will apply to private equity exposures and exposures not included in any previous categories.

The Central Bank may decide to apply a 150% or higher risk weight reflecting the higher risks associated with some other assets including venture capital exposures.

### 4.3.12 Off-Balance Sheet Instruments

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

Off-Balance Sheet Exposure <sup>25</sup>	CCF
i. Commitments that are unconditionally cancellable without prior notice or that effectively provide for automatic cancellation due to the deterioration in a borrower's credit worthiness. Also, include in this category, commitments and contingencies that are fully secured by cash on deposit at the reporting bank or portions of such commitments that are secured by cash on deposit at the reporting bank.	0%
i. Commitments with an original maturity up to one year. ii. Short-term self-liquidating trade letters of credit arising from the movement of goods (e.g. documentary credits collateralized by the underlying shipment) <sup>26</sup> .	20%
i. Commitments with an original maturity exceeding one year, including underwriting commitments and commercial credit lines. In cases where the terms of a commitment have been renegotiated and/or the maturity of a commitment extended, the original maturity should be measured from the start of the initial commitment until the expiry date of the renegotiated/extended facility. For the purpose of this category, the "original maturity" of a commitment should be measured from the date at which the facility becomes available to be drawn down, until its expiry date, after which the facility is no longer available to be drawn down.	50%
i. Direct credit substitutes, e.g. 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) where the reporting bank does not retain title to the underlying shipment. ii. Sale and repurchase agreements and asset sales with recourse, where the credit risk remains with the bank. iii. Others.	100%

Where there is an undertaking to provide a commitment on an off-balance sheet item, the lower of the two applicable CCFs should be applied.

<sup>25</sup> In case of doubts for products not listed here, refer to BCBS's: "International Convergence of Capital Measurement and Capital Standards - A Revised Framework", 2004 (rev. June 2006), p.82-89.

<sup>26</sup> A 20% CCF will be applied to both issuing and confirming banks

### 4.3.13 Over the Counter Derivative Transactions

Banks will need special authorization from the Central Bank to engage in Over-the-Counter Derivative (OTC). These transactions expose the bank to counterparty risk. The treatment that shall be applied to determine the credit equivalent amount of the OTC derivatives is the so called “current exposure method”<sup>27</sup>, whereby banks must calculate the current replacement cost by marking contracts to market / model, thus capturing the current exposure without any need for estimation, and then adding a factor (the "add-on") to reflect the potential future exposure over the remaining life of the contract. In order to calculate the credit equivalent amount of these instruments under this method, a bank must sum:

- The total replacement cost (obtained by "marking to market") of all its contracts with positive value; and
- 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>Interest Rates</b>	<b>FX and Gold</b>	<b>Equities</b>	<b>Precious Metals Except Gold</b>	<b>Other commodities</b>
<b>One year or less</b>	0.0%	1.0%	6.0%	7.0%	10.0%
<b>Over one year to five years</b>	0.5%	5.0%	8.0%	7.0%	12.0%
<b>Over five years</b>	1.5%	7.5%	10.0%	8.0%	15.0%

Notes:

- For contracts with multiple exchanges of principal (like swaps), the factors are to be multiplied by the number of remaining payments in the contract.
- For contracts that are structured to settle outstanding exposure following specified payment dates and where the terms are reset such that the market value of the contract is zero on these specified dates, the residual maturity would be set equal to the time until the next reset date.
- In the case of interest rate contracts with remaining maturities of more than one year that meet the above criteria, the add-on factor is subject to a floor of 0.5%.
- Other derivative contracts not covered by any of the columns in the above matrix are to be treated as "other commodities".
- No potential future credit exposure would be calculated for single currency floating / floating interest rate swaps; the credit exposure on these contracts would be evaluated solely based on their mark-to-market value.

### 4.3.14 Security Financing Transactions

Securities Financing Transactions (SFTs) are transactions such as repurchase agreements, reverse repurchase agreements, security lending and borrowing, and margin lending transactions, where the value of the transactions depends on market valuations and the transactions are often subject to margin agreements.

<sup>27</sup> BCBS: Annex IV of the “International Convergence of Capital Measurement and Capital Standards - A Revised Framework”, 2004 (rev. June 2006). This approach was replaced by the “*The standardised approach for measuring counterparty credit risk exposures*”, March 2014 (rev. April 2014), but given the reduced level of OTC derivatives transactions within Belize still considered more convenient to apply.

The credit equivalent amount of SFTs that expose a bank to counterparty credit risk is to be calculated as follows:

$$E^* = \max\{0; 1.15 \cdot E - (0.85 - H_{FX}) \cdot C\}, \text{ where}$$

$E^*$  = credit equivalent (after risk mitigation);

$E$  = current value of the exposure;

$C$  = the current value of the collateral received

$H_{FX}$  = 8% when collateral and exposures are denominated in different currencies, otherwise 0.

Once the bank has calculated the credit equivalent amounts of any off-balance sheet item they are to be weighted according to the category of counterparty in the same way as in the main framework, including concessionary weighting in respect of exposures backed by eligible guarantees and collateral.

For the capital treatment of failed securities, commodities, and foreign exchange transactions please refer to the *Annex II: "Capital Treatment for Failed Trades Non DvP Transactions"*<sup>28</sup>. In regards to unsettled securities, commodities, and foreign exchange transactions that are not processed through a delivery-versus-payment or payment-versus-payment mechanism, banks must calculate a capital charge as set forth in the aforementioned Annex II.

#### **4.4 Credit Risk Mitigation**

The framework set out in this section is applicable to banking book exposures that are risk-weighted under the standardised approach. Banks will not be allowed to use credit derivatives even for the purposes of credit risk mitigation without special authorization from the Central Bank.

#### **4.5 CRM Techniques and Requirements**

Banks will be allowed to use the following CRM techniques:

- i. *Collateralization*: Banks' credit exposure or potential credit exposure can be hedged in whole or in part by collateral posted by either the counterparty, or by a third party on behalf of the counterparty. Where banks take eligible financial collateral, the regulatory capital requirements shall be reduced by means of the simple method as described in COLLATERALIZED TRANSACTIONS.
- ii. *On-balance sheet netting*: Where banks have legally enforceable netting arrangements for loans and deposits they may calculate capital requirements on the basis of net credit exposures subject to the conditions set out in section 4.2.3 ON-BALANCE SHEET NETTING.
- iii. *Guarantees by a third party*: where guarantees fulfill the minimum operational conditions set out in section
- iv. THIRD-PARTY GUARANTEES, banks may take account of the credit protection offered by such CRM

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<sup>28</sup> Delivery versus Payment - a securities industry settlement procedure in which the buyer's payment for securities is due at the time of delivery.



techniques in calculating capital requirements.

Where these techniques meet the general and legal requirements as set out below, CRM will be recognized.

General requirements for CRM techniques:

- No transaction in which CRM techniques are used shall receive a higher capital requirement than an otherwise identical transaction where such techniques are not used.
- The effects of CRM must not be double-counted. Therefore, no additional supervisory recognition of CRM for regulatory capital purposes will be granted on exposures for which the RW already reflects that CRM.
- While the use of CRM techniques reduces or transfers credit risk, it may simultaneously increase other risks (i.e. residual risks). Residual risks include legal, operational, liquidity and market risks and banks must employ robust procedures and processes to control these risks.
- Where the credit quality of the counterparty and the value of the collateral have a material positive correlation, the collateral instrument will not be eligible for credit risk mitigation purposes. For example, securities issued by the counterparty, or by any related group entity, would provide little protection and so would be ineligible.
- Where a bank has multiple CRM techniques covering a single exposure, the bank must subdivide the exposure into portions covered by each type of CRM technique and the risk-weighted assets of each portion must be calculated separately.

Legal requirement:

- For banks to obtain capital relief for any use of CRM techniques, all documentation used in collateralized transactions and third party guarantees must be binding on all parties and legally enforceable in all relevant jurisdictions. Banks must have conducted sufficient legal review to verify this and have a well-founded legal basis to reach this conclusion, and undertake such further review, as necessary, to ensure continuing enforceability.

#### **4.6 Collateralized Transactions**

Before capital relief is granted in respect of any form of collateral, the standards set out below must be met:

- The legal mechanism by which collateral is pledged or transferred must ensure that the bank has the right to liquidate or take legal possession, in a timely manner, in the event of the default, insolvency or bankruptcy of the counterparty (and, where applicable, of the custodian holding the collateral). Additionally, banks must take all steps necessary to fulfill those requirements under the law applicable to the bank's interest in the collateral for obtaining and maintaining an enforceable security interest, e.g. by registering it with a registrar, or for exercising a right to net or set off in relation to the title transfer of the collateral.
- Banks must have clear and robust procedures for the timely liquidation of collateral to ensure that any legal conditions required for declaring the default of the counterparty and liquidating the collateral are observed, and that collateral can be liquidated promptly.
- Where the collateral is held by a custodian, banks must take reasonable steps to ensure that the custodian segregates the collateral from its own assets.

Under the simple approach, the RW of the counterparty is replaced by the RW of the collateral instrument collateralizing or partially collateralizing the exposure. For collateral to be recognized in the simple approach, it must be pledged for at least the life of the exposure and it must be marked to market and revalued with a minimum frequency of six months. Those portions of exposures collateralized by the market value of recognized collateral receive the RW applicable to the collateral instrument. The RW on the collateralized portion is subject to a floor of 20% except under the conditions specified below. The remainder of the exposure must be assigned the RW appropriate to the counterparty. Maturity mismatches are not allowed under the simple approach.

The following collateral instruments are eligible for recognition in the simple approach:

- a) Cash (as well as certificates of deposit or comparable instruments issued by the lending bank) on deposit with the bank that is incurring the counterparty exposure.
- b) Gold
- c) In jurisdictions that allow the use of external ratings for regulatory purposes:
  - i. Debt securities rated by a recognized ECAI where these are either:
    - at least BB– when issued by sovereigns or PSEs that are treated as sovereigns by the national supervisor; or
    - at least BBB– when issued by other entities (including banks and other prudentially regulated financial institutions); or
    - at least A-3/P-3 for short-term debt instruments.
  - ii. Debt securities not rated by a recognized ECAI where these are:
    - issued by a bank; and
    - listed on a recognized exchange; and
    - classified as senior debt; and
    - all rated issues of the same seniority by the issuing bank are rated at least BBB– or A-3/P-3 by a recognized ECAI; and
    - the bank holding the securities as collateral has no information to suggest that the issue justifies a rating below BBB– or A-3/P-3 (as applicable); and
    - the supervisor is confident that the market liquidity of the security is adequate.
- d) Equities (including convertible bonds) that are included in a main index.

The 20% floor for the RW on a collateralized transaction does not apply and a 0% RW may be applied where the exposure and the collateral are denominated in the same currency, and either:

- the collateral is cash on deposit with the bank that is incurring the counterparty exposure;
- the collateral is in the form of sovereign / PSE securities eligible for a 0% RW, and its market value has been discounted by 20%.

#### **4.6.1 On-balance Sheet Netting**

Where a bank,

- a) has a well-founded legal basis for concluding that the netting or offsetting agreement is enforceable in each relevant jurisdiction regardless of whether the counterparty is insolvent or bankrupt;
- b) is able at any time to determine those assets and liabilities with the same counterparty that are subject to the netting agreement;
- c) monitors and controls its roll-off risks; and

d) monitors and controls the relevant exposures on a net basis, it may use the net exposure of loans and deposits as the basis for its capital adequacy calculation in accordance with the formula:

$E = \max \{ 0 ; \text{Assets} - (1 - H_{\text{FX}}) \cdot \text{Liabilities} \}$ , where

E = current value of the exposure;

$H_{\text{FX}} = 8\%$  when collateral and exposures are denominated in different currencies, otherwise 0.

#### **4.6.2 Third-party Guarantees**

If the operational requirements set below are met, banks can substitute the RW of the counterparty with the RW of the guarantor:

- a) it represents a direct claim on the protection provider;
- b) it is explicitly referenced to specific exposures or a pool of exposures, so that the extent of the cover is clearly defined and incontrovertible;
- c) other than non-payment by a protection purchaser of money due in respect of the credit protection contract it is irrevocable; there is 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;
- d) It must be unconditional; there should be no clause in the protection contract outside the direct control of the bank that could prevent the protection provider from being obliged to pay out in a timely manner in the event that the underlying counterparty fails to make the payment(s) due.

In addition to the legal certainty requirements in 4.2.1

CRM TECHNIQUES AND Requirements, in order for a guarantee to be recognized, the following requirements must be satisfied:

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

#### **Range of eligible guarantors (counter-guarantors) / protection providers:**

Credit protection given by the following entities can be recognized when they have a lower RW than the counterparty:

- Sovereign entities<sup>29</sup>, PSEs, MDBs, banks, securities firms and other prudentially regulated financial institutions<sup>30</sup> with a lower RW than the counterparty;
- Other entities that are externally rated except when credit protection is provided to a securitization exposure. This would include credit protection provided by a parent, subsidiary and affiliate companies when they have a lower RW than the obligor;
- When credit protection is provided to a securitization exposure, other entities that currently are externally rated BBB– or better and that were externally rated A– or better at the time the credit protection was provided. This would include credit protection provided by parent, subsidiary and affiliate companies when they have a lower RW than the obligor.

Risk-weight treatment of transactions in which eligible credit protection is provided:

General risk-weight treatment: The protected portion is assigned the RW of the protection provider. The uncovered portion of the exposure is assigned the RW of the underlying counterparty.

Materiality thresholds on payments below which no payment is made in the event of loss are equivalent to retained first loss positions and must be deducted in full from the capital of the bank purchasing the credit protection.

Proportional cover: where losses are shared pari passu on a pro rata basis between the bank and the guarantor, capital relief is afforded on a proportional basis, i.e. the protected portion of the exposure receives the treatment applicable to eligible guarantees, with the remainder treated as unsecured.

Tranched cover: where the bank transfers a portion of the risk of an exposure in one or more tranches to a protection seller or sellers and retains some level of the risk of the loan, and the risk transferred and the risk retained are of different seniority, banks may obtain credit protection for either the senior tranches (eg the second-loss portion) or the junior tranche (e.g. the first-loss portion). In this case, the rules as set out in the securitization standard apply.

Currency mismatches: where the credit protection is denominated in a currency different from that in which the exposure is denominated, that is there is a currency mismatch, the amount of the exposure deemed to be protected must be reduced by the application of a haircut  $H_{FX}$ , using the formula that follows:

$G_a = G \cdot (1 - H_{FX})$ , where:

G = nominal amount of the credit protection

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

will be calculated as  $H_{FX} = 8\% \cdot \sqrt{\frac{N_R + (T_M - 1)}{10}}$ ,

where  $N_R$  = actual number of business days between re-margining for capital market transactions or revaluation for secured transactions, and  $T_M$  = minimum holding period for the type of transaction.

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<sup>29</sup> This includes the Bank for International Settlements, the International Monetary Fund, the European Central Bank, the European Union, the European Stability Mechanism (ESM) and the European Financial Stability Facility (EFSF), as well as MDBs eligible for a 0% RW.

<sup>30</sup> A prudentially regulated financial institution is defined as: a legal entity supervised by a regulator that imposes prudential requirements consistent with international norms or a legal entity (parent company or subsidiary) included in a consolidated group where any substantial legal entity in the consolidated group is supervised by a regulator that imposes prudential requirements consistent with international norms. These include, but are not limited to, prudentially regulated insurance companies, broker/dealers, thrifts and futures commission merchants, and qualifying central counterparties.

Sovereign guarantees and counter-guarantees: As specified in CLAIMS ON SOVEREIGNS, a lower risk weight may be applied at national discretion to a bank's exposures to the sovereign (or central bank) where the bank is incorporated and where the exposure is denominated in domestic currency and funded in that currency. National authorities may extend this treatment to portions of claims guaranteed by the sovereign (or central bank), where the guarantee is denominated in the domestic currency and the exposure is funded in that currency. A claim may be covered by a guarantee that is indirectly counter guaranteed by a sovereign. Such a claim may be treated as covered by a sovereign guarantee provided that:

- a) the sovereign counter-guarantee covers all credit risk elements of the exposure;
- b) both the original guarantee and the counter-guarantee meet all operational requirements for guarantees, except that the counter-guarantee need not be direct and explicit to the original exposure; and
- c) The supervisor is satisfied that the cover is robust and that no historical evidence suggests that the coverage of the counter-guarantee is less than effectively equivalent to that of a direct sovereign guarantee.

## **5 MARKET RISK MINIMUM CAPITAL REQUIREMENT**

### **5.1 Definitions and Scope of Application**

Market risk is defined as the risk of losses in on and off-balance sheet positions arising from movements in the market prices of instruments. The risks subject to the market risk capital requirement are:

- a) The risks pertaining to interest rate related instruments and equities in the trading book; and
- b) Foreign exchange risk and commodities risk throughout the banking and trading book.

Market risk must be managed in such a way that the capital requirements are being met on a continuous basis, i.e. at the close of each business day.

#### **5.1.1 Financial Instruments**

Instruments comprise financial instruments, foreign exchange, and commodities. A financial instrument is any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity. Financial instruments include both primary financial instruments (or cash instruments) and derivative financial instruments. A financial asset is any asset that is cash, the right to receive cash or another financial asset or a commodity, or an equity instrument. A financial liability is the contractual obligation to deliver cash or another financial asset or a commodity.

#### **5.1.2 Trading Book**

A trading book consists of positions in financial instruments and commodities held either with trading intent or in order to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must either be free of any restrictive covenants on their tradability or able to be hedged completely. Banks must fair-value daily any trading book instrument and recognize any valuation change in the Statement of Comprehensive Income.

Any instrument a bank holds for one or more of the following purposes must be designated as a trading book instrument:

- a) short-term resale;
- b) profiting from short-term price movements;
- c) locking in arbitrage profits;
- d) hedging risks that arise from instruments meeting criteria (a), (b) or (c) above.

Banks must have clearly defined policies, procedures and documented practices for determining which instruments to include in or to exclude from the trading book for purposes of calculating their regulatory capital, and taking into account the bank's risk management capabilities and practices. Compliance with the policies and procedures must be fully documented and subject to periodic (at least yearly) internal audit and the results must be documented and available for supervisory review.

In cases where banks intend to move instruments between the trading book and the banking book, after initial designation, special authorization from the Central Bank will be required. Switching instruments for regulatory arbitrage is strictly prohibited. Market events, changes in the liquidity of a financial instrument, or a change of trading intent alone are not valid reasons for re-designating an instrument to a different book. Without exception, a capital benefit as a result of switching will not be allowed in any case or circumstance.

### **5.1.3 Prudent Valuation Guidance**

A framework for prudent valuation practices should at a minimum include:

- a) Systems and controls to give management and supervisors the confidence that their valuation estimates are prudent and reliable. Such systems must include documented policies and procedures for the process of valuation (e.g. sources of market information and review of their appropriateness, frequency of independent valuation, timing of closing prices); and clear and independent (i.e. of front office) reporting lines for the department accountable for the valuation process.
- b) A valuation methodology where marking to market is done daily. This is the valuation of positions at readily available close out prices that are sourced independently. Banks must mark-to-market as much as possible.

Independent price verification is the process by which market prices or model inputs are regularly verified for accuracy. While daily marking-to-market may be performed by dealers, verification of market prices or model inputs should be performed by a unit independent of the dealing room, at least monthly. Independent price verification entails a higher standard of accuracy in that the market prices or model inputs are used to determine profit and loss figures, whereas daily marks are used primarily for management reporting in between reporting dates.

### **5.1.4 Market Risk Stress Tests**

Banks should have methodologies that enable them to assess and actively manage all material market risks, wherever they arise, at position, trading desk, business line and firm-wide level. For more sophisticated banks, their assessment of internal capital adequacy for market risk, at a minimum, should be based on both mathematic modelling and stress testing, including an assessment of concentration risk and the assessment of illiquidity under stressful market scenarios, although all firms' assessments should include stress testing appropriate to their trading activity. The bank must demonstrate that it has enough capital to not only meet the minimum capital requirements but also to withstand a range of severe but plausible market shocks. In particular, it must factor in, where appropriate, events like market illiquidity, holding concentrated positions (in relation to market turnover), deep out-of-the money positions, and jumps-to-defaults.

## **5.2 Measurement of Market Risk**

The Basel Committee on Banking Supervision provides two broad methodologies for the measurement of market risk. These are:

- a) The Standardised Approach that provides a simplified alternative for the calculation of the capital requirements; and
- b) The Internal Models Approach that allows banks to have an integrated risk measurement system that captures the broad risk factor categories.

The Central Bank has opted to utilize the standardised approach for determining the capital requirements for market risk. Under this approach, banks subject to market risk, will calculate their total capital requirement using a building-block approach, whereby the capital charge for each risk category (interest rate risk, equity risk, foreign exchange risk and commodity risk) is determined separately. The capital charge for each risk category is then aggregated to obtain the total market risk capital requirement.

$$\text{Total Capital Requirement} = \text{CR}_{\text{IRR}} * \text{SF}_{\text{IRR}} + \text{CR}_{\text{EQ}} * \text{SF}_{\text{EQ}} + \text{CR}_{\text{FX}} * \text{SF}_{\text{FX}} + \text{CR}_{\text{COMM}} * \text{SF}_{\text{COMM}}$$

where:

- $\text{CR}_{\text{IRR}}$  = capital requirement for interest rate risk;
- $\text{CR}_{\text{EQ}}$  = capital requirement for equity risk;
- $\text{CR}_{\text{FX}}$  = capital requirement for foreign exchange risk;
- $\text{CR}_{\text{COMM}}$  = capital requirement for commodities risk;
- $\text{SF}_{\text{IRR}}$  = Scaling factor of 1.50;
- $\text{SF}_{\text{EQ}}$  = Scaling factor of 3.00;
- $\text{SF}_{\text{FX}}$  = Scaling factor of 1.50; and
- $\text{SF}_{\text{COMM}}$  = Scaling factor of 1.50.

Within the interest rate and equity risk categories, separate capital charge for specific risk and the general market risk arising from debt and equity positions are calculated. Specific risk is defined as the risk of loss caused by an adverse price movement of a debt instrument or security due principally to factors related to the issuer. General market risk is defined as the risk of loss arising from adverse changes in market prices. For commodities, options, and foreign exchange, there is only a general market risk capital requirement.

## **5.2.1 Interest Rate Risk**

This section describes the simplified standardised approach for measuring the risk of holding or taking positions in debt securities and other interest rate related instruments in the trading book. The instruments covered include all fixed-rate and floating-rate debt securities and instruments that behave like them. The minimum capital requirement is expressed in terms of two separately calculated charges, one applying to the “specific risk” of each security, and the other to the interest rate risk in the portfolio (termed “general market risk”), where long and short positions in different securities or instruments can be offset.

### **5.2.1.1 Interest rate – Specific Risk**

The capital charge for specific risk is designed to protect against an adverse movement in the price of an individual security owing to factors related to the individual issuer. In measuring the risk, offsetting will be restricted to matched positions in the identical issue. Even if the issuer is the same, no offsetting will be permitted between different issues.

The specific risk capital charges for “government” and “other” categories will depend on the RW of the issue and the term to maturity, as follows in Table I:



**Table I: Government and Other Categories**

<b>Categories</b>	<b>External credit assessment</b>	<b>Specific risk capital requirement</b>
<b>Government</b>	AAA to AA- A+ to BBB-	0% 0.25% (residual term to final maturity ≤ 6 months) 1.00% (residual term to final maturity > 6 and ≤ 24 months) 1.60% (residual term to final maturity > 24 months) 8.00%
	BB+ to B- Below B- Unrated	12.00% 8.00%
<b>Qualifying</b>		0.25% (residual term to final maturity ≤ 6 months) 1.00% (residual term to final maturity > 6 and ≤ 24 months) 1.60% (residual term to final maturity > 24 months)
<b>Other</b>	BB+ to BB- Below BB- Other unrated	8.00% 12.00% 8.00%

The category “government”<sup>31</sup> will include all forms of government paper including but not limited to bonds, treasury bills and other short-term instruments. The Central Bank reserves the right to apply a specific capital charge to securities issued by certain governments, especially to securities denominated in a currency other than that of the issuing government.

When the government paper is denominated in the domestic currency and funded by the bank in the same currency, at national discretion, a lower specific risk capital requirement may be applied.

The “qualifying” category includes securities issued by public sector entities and multilateral development banks, plus other securities that are:

- rated investment-grade<sup>32</sup> by at least two CRA specified by the Central Bank; or
- rated investment-grade by one CRA and not less than investment-grade by any other CRA specified by the Central Bank (subject to supervisory oversight); or
- subject to supervisory approval, unrated, but deemed to be of comparable investment quality by the reporting bank, and the issuer has securities listed on a recognized stock exchange.

Instruments issued by a non-qualifying issuer will receive the same specific risk charge as a non-investment grade corporate borrower under the standardised approach for credit risk. For debt instruments by a non-qualifying issuer which have a high yield to redemption relative to government debt securities will have a 12% specific risk charge.

<sup>31</sup> Including local and regional governments denominated in BZ\$ and funded in BZ\$, subject to the 0% RW.

<sup>32</sup> Example, securities which are rated at or above Baa by Moody’s Investors Services or BBB by Standard & Poor’s Corporation.

### ***5.2.1.2 Interest rate – General Risk***

The capital requirements for general market risk are designed to capture the risk of loss arising from changes in market interest rates. The “maturity” method will be applied, whereby the capital charge is obtained from the sum of four components:

- The net short or long position in the whole trading book;
- A small proportion of the matched positions in each time-band (the “vertical disallowance”);
- A larger proportion of the matched positions across different time-bands (the “horizontal disallowance”); and
- A net charge for positions in options, where appropriate.

Separate maturity ladders should be used for each currency, and capital charges should be calculated for each currency separately and then summed with no offsetting between positions of opposite sign. In the case of those currencies in which business is insignificant (< 5% of total assets), separate maturity ladders for each currency are not required. Rather, the bank may construct a single maturity ladder and slot, within each appropriate time-band, the net long or short position for each currency. However, the absolute value of the individual net positions are to be summed within each time-band, irrespective of whether they are long or short positions, to produce a gross position figure.

The long or short positions in debt securities and other sources of interest rate exposures including derivative instruments are slotted into a maturity ladder comprising thirteen time-bands (or fifteen time-bands in case of low coupon instruments). Fixed rate instruments should be allocated according to the residual term to maturity and floating-rate instruments according to the residual term to the next repricing date. Opposite positions of the same amount in the same issues (but not different issues by the same issuer), whether actual or notional, can be omitted from the interest rate maturity framework, as well as closely matched swaps, forwards, futures and forward rate agreements.

The first step in the calculation is to weight the positions in each time-band by a factor designed to reflect the price sensitivity of those positions to assumed changes in interest rates. The weights for each time-band are set out in Table II below. Zero-coupon bonds and deep-discount bonds (defined as bonds with a coupon of less than 3%) should be slotted according to the time-bands set out in the second column of Table II:

**Table II: Time-bands and Weights**

<b>Coupon 3% or more</b>	<b>Coupon less than 3%</b>	<b>Risk weight</b>	<b>Assumed changes in yield/interest rates</b>
1 month or less	1 month or less	0.00%	1.00
1 to 3 months	1 to 3 months	0.20%	1.00
3 to 6 months	3 to 6 months	0.40%	1.00
6 to 12 months	6 to 12 months	0.70%	1.00
1 to 2 years	1.0 to 1.9 years	1.25%	0.90
2 to 3 years	1.9 to 2.8 years	1.75%	0.80
3 to 4 years	2.8 to 3.6 years	2.25%	0.75
4 to 5 years	3.6 to 4.3 years	2.75%	0.75
5 to 7 years	4.3 to 5.7 years	3.25%	0.70
7 to 10 years	5.7 to 7.3 years	3.75%	0.65
10 to 15 years	7.3 to 9.3 years	4.50%	0.60
15 to 20 years	9.3 to 10.6 years	5.25%	0.60
over 20 years	10.6 to 12 years	6.00%	0.60
	12 to 20 years	8.00%	0.60
	over 20 years	12.50%	0.60

The next step in the calculation is to offset the weighted longs and shorts in each time-band, resulting in a single short or long position for each band. Since, however, each band would include different instruments and different maturities, a 10% capital charge to reflect basis risk and gap risk will be levied on the smaller of the offsetting positions, be it long or short.

The result of the above calculations is to produce two sets of weighted positions, the net long or short positions in each time-band and the vertical disallowances, which have no sign.

In addition, however, banks will be allowed to conduct two rounds of “horizontal offsetting”:

- a) First between the net positions in each of three zones where zone 1 is set as zero to one year, zone 2 is set as one year to four years and zone 3 is set as four years and over; and
- b) Subsequently between the net positions in the three different zones.

**Table III: Horizontal disallowances**

<b>Zones</b>	<b>Time-band</b>	<b>Within the zone</b>	<b>Between adjacent zones</b>	<b>Between zones 1 and 3</b>
<b>Zone 1</b>	0 - 1 month	40%	40%	100%
	1 - 3 months			
<b>Zone 2</b>	3 - 6 months	30%	40%	
	6 - 12 months			
	1 - 2 years			
<b>Zone 3</b>	2 - 3 years	30%	40%	
	3 - 4 years			
	4 - 5 years			
	5 - 7 years			
	7 - 10 years			
10 - 15 years	30%	40%		
15 - 20 years				
over 20 years				

The offsetting will be subject to a scale of disallowances expressed as a fraction of the matched positions, as set out in Table III above. The weighted long and short positions in each of three zones may be offset, subject to the matched portion attracting a disallowance factor that is part of the capital charge. The residual net position in each zone may be carried over and offset against opposite positions in other zones, subject to a second set of disallowance factors.

In the case of residual currencies, the gross positions in each time-band will be subject to the RWs set out in Table II, with no further offsets.

### ***5.2.1.3 Interest rate derivatives***

A capital requirement will be determined for all interest rate derivatives and off-balance sheet instruments in the trading book, which react to changes in interest rates, (e.g. forward rate agreements (FRAs), interest rate and cross-currency swaps and forward foreign exchange positions). The derivatives should be converted into positions in the relevant category and become subject to specific and general market risk charges as described above. In order to calculate the standard formula described above, the amounts reported should be the market value of the principal amount of the underlying or of the notional underlying.

### ***Futures and forward contracts, including forward rate agreements***

These instruments are treated as a combination of a long and a short position in a notional government security. The maturity of a future or a forward rate agreement will be the period until delivery or exercise of the contract, plus - where applicable - the life of the underlying instrument. For example, a long position in a 3-month interest rate future (taken in April) is to be reported as a long position in a government security with a maturity of five months and a short position in a government security with a maturity of two months.

## *Swaps*

Swaps will be treated as two notional positions in government securities with relevant maturities. For example, an interest rate swap under which a bank is receiving floating rate interest and paying fixed will be treated as a long position in a floating rate instrument of maturity equivalent to the period until the next interest fixing and a short position in a fixed-rate instrument of maturity equivalent to the residual life of the swap.

Interest rate and currency swaps, forward rate agreements, forward foreign exchange contracts and interest rate futures will not be subject to a specific risk charge. General market risk applies to positions in all derivative products in the same manner as for cash positions.

### **5.2.2 Equity risk**

This section sets out a minimum capital standard to cover the risk of holding or taking positions in equities and all other instruments that exhibit market behavior similar to equities, but not to non-convertible preference shares. Long and short positions in the same issue may be reported on a net basis. The instruments covered include common stocks, whether voting or non-voting, convertible securities that behave like equities, and commitments to buy or sell equity securities.

The minimum capital standard for equities is expressed in terms of two separately calculated charges for the “specific risk” of holding a long or short position in an individual equity and for the “general market risk” of holding a long or short position in the market as a whole. Specific risk is defined as the bank’s gross equity positions (i.e. the sum of all long equity positions and of all short equity positions) and general market risk as the difference between the sum of the longs and the sum of the shorts (i.e. the overall net position in an equity market). The long or short position in the market must be calculated on a market-by-market basis, i.e. a separate calculation has to be carried out for each national market in which the bank holds equities. Both the capital charge for specific risk and the charge for general market risk will be 9% for domestic banks and 10% for international banks.

### **5.2.3 Foreign exchange risk**

This section sets out a minimum capital standard to cover the risk of holding or taking positions in foreign currencies, including gold. Two processes are needed to calculate the capital requirement for foreign exchange risk. The first is to measure the exposure in a single currency position. The second is to measure the risks inherent in a bank’s mix of long and short positions in different currencies.

#### ***5.2.3.1 Measuring the exposure in a single currency***

The bank’s net open position in each currency should be calculated by summing:

- The net spot position (i.e. all asset items less all liability items, including accrued interest, denominated in the currency in question);
- The net forward position (i.e. 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);

- Guarantees (and similar instruments) that are certain to be called and are likely to be irrecoverable;
- Net future income / expenses not yet accrued but already fully hedged; and
- Depending on particular accounting conventions in different countries, any other item representing a profit or loss in foreign currencies.

If banks include deferred income/expenses they should do so on a consistent basis, and not be permitted to select only those expected future flows which reduce their position.

Forward currency and gold positions will be valued at current spot market exchange rates.

### ***5.2.3.2 Measuring foreign exchange risk in a portfolio of foreign currency positions***

Banks will calculate the minimum capital by using the “shorthand method”, whereby the nominal amount (or net present value) of the net position in each foreign currency and in gold is converted at spot rates into the reporting currency. The overall net open position is measured by aggregating:

- The sum of the net short positions or the sum of the net long positions, whichever is greater; plus
- The net position (short or long) in gold, regardless of sign.

The capital charge will be 9% and 10% for domestic and international banks, respectively, of the overall net open position.

## **5.2.4 Commodities risk**

This section establishes a minimum capital standard to cover the risk of holding or taking positions in commodities, including precious metals, but excluding gold.

A commodity is defined as a physical product, which is or can be traded on a secondary market, e.g. agricultural products, minerals (including oil) and precious metals.

Commodities position risk will be measured under the simplified approach, where long and short positions in each commodity may be reported on a net basis for the purposes of calculating open positions. However, positions in different commodities will as a general rule not be offsettable in this fashion.

The capital charge for directional commodity risk will be the product of 15% times the net position, long or short (in absolute value), in each commodity. In order to protect the bank against basis risk, interest rate risk and forward gap risk, an additional capital charge will be levied equivalent to 3% of the bank’s gross positions, long plus short, in that particular commodity will be added.

## **5.2.5 Treatment of options**

Banks will not be allowed to sell financial options of any kind, although they may buy a limited range of purchased options requiring authorization from the Central Bank to do so. For banks that are allowed to purchase options, the simplified approach to calculate capital will be applied. The positions for the options and the associated underlying, cash or forward, are not subject to the standardised methodology but rather subject to separately calculated capital charges requirement that incorporate both general market risk and specific risk (see Table IV).

The risk numbers thus generated are then added to the capital charges for the relevant category, i.e. interest rate related instruments, equities, foreign exchange and commodities.

The charge to be applied under this measure are:

- 16% for interest rate options;
- 16% for equity options;
- 8% for currency options; and
- 15% for commodities options.

**Table IV: Simplified Approach: Capital Charges**

<b>Positions</b>	<b>Capital Requirement<sup>33</sup></b>
<b>Long cash and Long put Or Short cash and Long call</b>	The capital charge will be the market value of the underlying security <sup>34</sup> multiplied by the sum of specific and general market risk charges <sup>35</sup> for the underlying less the amount the option is in the money (if any) bounded at zero
<b>Long call or Long put</b>	The capital charge will be the lesser of: (i) the market value of the underlying security multiplied by the sum of specific and general market risk charges for the underlying; (ii) the market value of the option

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<sup>33</sup> As an example of how the calculation would work, if a holder of 100 shares currently valued at \$10 each holds an equivalent put option with a strike price of \$11, the capital charge would be:  $\$1,000 \times 16\%$  (i.e. 8% specific plus 8% general market risk) = \$160, less the amount the option is in the money  $(\$11 - \$10) \times 100 = \$100$ , i.e. the capital charge would be \$60.

<sup>34</sup> In some cases, such as foreign exchange, it may be unclear which side is the “underlying security”; this should be taken to be the asset which would be received if the option were exercised. In addition, the nominal value should be used for items where the market value of the underlying instrument could be zero, e.g. caps.

<sup>35</sup> Some options (e.g. where the underlying is an interest rate, a currency or a commodity) bear no specific risk but specific risk will be present in the case of options on certain interest rate related instruments (e.g. options on a corporate debt security).

## 6 OPERATIONAL RISK MINIMUM CAPITAL REQUIREMENT

### 6.1 Definition

Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk,<sup>36</sup> but excludes strategic and reputational risk.

### 6.2 Measurement of Operational Risk

The capital requirements for the measurement of operational risk is the Standardised Approach under Basel III. The standardised approach methodology is based on the following components:

- i. the Business Indicator (BI) which is a financial-statement-based proxy for operational risk;
- ii. the Business Indicator Component (BIC), which is calculated by multiplying the BI by a set of regulatory determined marginal coefficients ( $\alpha_i$ ); and
- iii. the Internal Loss Multiplier (ILM), which is a scaling factor that is based on a bank's average historical losses and the BIC.<sup>37</sup>

#### 6.2.1 The Business Indicator

The Business Indicator (BI) comprises three components, which are all averaged over three years<sup>38</sup>:

- i. the interest, leases and dividend component (ILDC);
- ii. the services component (SC); and
- iii. the financial component (FC).

As a result, the BI can be expressed as:

$$BI = ILDC + SC + FC.$$

##### 6.2.1.1 Interest, Leases and Dividend Component

The ILDC reflects the operational risk associated with interest, leases and dividends. The ILDC can be expressed by the following formula, where the components are calculated as the average over three years: t, t-1 and t-2:

$$ILD = \text{Min} \left[ \overline{\text{Abs}(\text{Interest Income} - \text{Interest Expense})}; 2.25\% \times \overline{\text{Interest Earning Assets}} \right] + \overline{\text{Dividend Income}}$$

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<sup>36</sup> Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements.

<sup>37</sup> The operational risk capital requirement is determined by the product of the BIC and the ILM. For banks in bucket 1 (see Table IV: BI Ranges and Marginal Coefficients), internal loss data does not affect the capital calculation. That is, the ILM is equal to 1.

<sup>38</sup> The absolute value of the net items (that is, interest income – interest expense) should be calculated first year by year. Only after this year-by-year calculation should the average of the three years be calculated. The absolute value of net P&L is used instead of the actual value.



**Table I: Definition of Interest, Leases and Dividend Component**

<b>Items</b>	<b>Description</b>	<b>Typical sub-items</b>
<b>Interest income</b>	Interest income from all financial assets and other interest income	<ul style="list-style-type: none"> <li>• Interest income from loans and advances, assets available for sale, assets held to maturity, trading assets, financial leases and operational leases</li> <li>• Interest income from hedge accounting derivatives</li> <li>• Other interest income</li> <li>• Profits from leased assets</li> </ul>
<b>Interest expense</b>	Interest expenses from all financial liabilities and other interest expenses (includes interest expense from financial and operating leases, losses, depreciation and impairment of operating leased assets)	<ul style="list-style-type: none"> <li>• Interest expenses from deposits, debt securities issued, financial leases, and operating leases</li> <li>• Interest expenses from hedge accounting derivatives</li> <li>• Other interest expenses</li> <li>• Losses from leased assets</li> <li>• Depreciation and impairment of operating leased assets</li> </ul>
<b>Interest earning assets (balance sheet item)</b>	Total gross outstanding loans, advances, interest bearing securities (including government bonds), and lease assets measured at the end of each financial year.	
<b>Dividend income</b>	Dividend income from investments in stocks and funds not consolidated in the bank's financial statements, including dividend income from non-consolidated subsidiaries, associates and joint ventures.	

**6.2.1.2 Services Component**

The SC captures the operational risk arising from a bank's service activities. The SC is calculated based on the following formula:

$$SC = \text{Max}(\overline{\text{Other Operating Income}}; \overline{\text{Other Operating Expense}}) + \text{Max}(\overline{\text{Fee Income}}; \overline{\text{Fee Expense}})$$

**Table II: Definition of Services Component**

<b>Items</b>	<b>Description</b>	<b>Typical Sub-Items</b>
<b>Other Operating Income</b>	Income from ordinary banking operations not included in other BI items but of similar nature (income from operating leases should be excluded)	<ul style="list-style-type: none"> <li>• Rental income from investment properties</li> <li>• Gains from non-current assets and disposal groups classified as held for sale not qualifying as discontinued operations (IFRS 5.37)</li> </ul>
<b>Other Operating Expense</b>	Expenses and losses from ordinary banking operations not included in other BI items but of similar nature and from operational loss events (expenses from operating leases should be excluded)	<ul style="list-style-type: none"> <li>• Losses from non-current assets and disposal groups classified as held for sale not qualifying as discontinued operations (IFRS 5.37)</li> <li>• Losses incurred as a consequence of operational loss events (e.g. fines, penalties, settlements, replacement cost of damaged assets), which have not been provisioned/reserved for in previous years</li> <li>• Expenses related to establishing provisions / reserves for operational loss events</li> </ul>
<b>Fee and Commission Income</b>	Income received from providing advice and services. Includes income received by the bank as an outsourcer of financial services.	Fee and commission income from: <ul style="list-style-type: none"> <li>• Securities (issuance, origination, reception, transmission, execution of orders on behalf of customers)</li> <li>• Clearing and settlement; Asset management; Custody; Fiduciary transactions; Payment services; Structured finance; Servicing of securitizations; Loan commitments and guarantees given; and foreign transactions</li> </ul>
<b>Fee and Commission Expense</b>	Expenses paid for receiving advice and services. Includes outsourcing fees paid by the bank for the supply of financial services, but not outsourcing fees paid for the supply of non-financial services (eg logistical, IT, human resources)	Fee and commission expenses from: <ul style="list-style-type: none"> <li>• Clearing and settlement; Custody; Servicing of securitizations; Loan commitments and guarantees received; and Foreign transactions</li> </ul>

### ***6.2.1.3 Financial Component***

The FC captures the operational risk associated with the bank’s trading book and banking book. It is calculated based on the following equation.

$$FC = \text{Abs}(\overline{\text{Net Profit \& Loss Trading Book}}) + \text{Abs}(\overline{\text{Net Profit \& Loss Banking Book}})$$

**Table III: Definition of Financial Component**

Items	Description
<b>Net Profit (Loss) on the Trading Book</b>	<ul style="list-style-type: none"> <li>• Net profit/loss on trading assets and trading liabilities (derivatives, debt securities, equity securities, loans and advances, short positions, other assets and liabilities)</li> <li>• Net profit/loss from hedge accounting</li> <li>• Net profit/loss from exchange differences</li> </ul>
<b>Net Profit (Loss) on the Banking Book</b>	<ul style="list-style-type: none"> <li>• Net profit/loss on financial assets and liabilities measured at fair value through the statement of Profit and Loss</li> <li>• Realized gains/losses on financial assets and liabilities not measured at fair value through profit and loss (loans and advances, assets available for sale, assets held to maturity, financial liabilities measured at amortized cost)</li> <li>• Net profit/loss from hedge accounting</li> <li>• Net profit/loss from exchange differences</li> </ul>

### 6.2.2 Exclusions from the Business Indicator

The following Profit and Loss items do not contribute to any of the items of the BI:

- Income and expenses from insurance or reinsurance businesses
- Premiums paid and reimbursements/payments received from insurance or reinsurance policies purchased
- Administrative expenses, including staff expenses, management fees, outsourcing fees paid for the supply of non-financial services (e.g. logistical, IT, human resources), and other administrative expenses (e.g. IT, utilities, telephone, travel, office supplies, postage)
- Recovery of administrative expenses including recovery of payments on behalf of customers
- Expenses of premises and fixed assets (except when these expenses result from operational loss events)
- Depreciation/amortization of tangible and intangible assets (except depreciation related to operating lease assets, which should be included in financial and operating lease expenses)
- Provisions/reversal of provisions (e.g. on pensions, commitments and guarantees given) except for provisions related to operational loss events
- Expenses due to share capital repayable on demand
- Impairment/reversal of impairment (e.g. on financial assets, non-financial assets, investments in subsidiaries, joint ventures and associates)
- Changes in goodwill recognized in profit or loss
- Corporate income tax (tax based on profits including current tax and deferred).

### 6.2.3 The Business Indicator Component

To calculate the BIC, the BI is multiplied by the marginal coefficients ( $\alpha_i$ ). The marginal coefficients increase with the size of the BI as shown in **Table IV**. For banks in the first bucket (i.e. with a BI less than or equal to Belize dollar equivalent of €1bn) the BIC is equal to BI x 12%. The marginal increase in the BIC resulting from a one-unit increase in the BI is 12% in bucket 1, 15% in bucket 2 and 18% in bucket 3. For example, given a BI = €35bn, the BIC = (1 x 12%) + (30-1) x 15% + (35-30) x 18% = €5.37bn.

**Table IV: BI Ranges and Marginal Coefficients**

Bucket	BI range (in €bn)	BI marginal coefficients (αi)
1	≤1	12%
2	1 < BI ≤30	15%
3	> 30	18%

### 6.2.3.1 Overview of the ILM

The ILM is a risk-sensitive component that captures a bank’s internal operational losses. While the BIC is effectively the baseline operational risk capital requirement, the ILM serves as a scaling factor that adjusts the baseline capital depending on the operational loss experience of the bank. The ILM is expressed as follows:

$$ILM = Ln \left( \exp(1) - 1 + \left( \frac{LC}{BIC} \right)^{0.8} \right)$$

Calculation of the ILM is required only for banks in the second and third BI buckets (that is, banks with a BI of over the Belize dollar equivalent of EUR 1 billion and over EUR 30 billion, respectively). For banks in the first BI bucket (BI less than the Belize dollar equivalent of EUR 1 billion), the ILM is assumed to equal 1. Since all banks in Belize are within the BI range for bucket 1, internal loss data should not affect the capital calculation. Therefore, operational risk capital will be equal to the BIC, (OR =12% x BI). However, if banks were to exceed the BI range in bucket 1 then the information below would be applied in the calculation of the ILM.

The Loss Component (LC) should correspond to 15 times the average annual operational risk losses incurred over the preceding 10 years.

The following relationships below will emerge based on the formula above:

- If LC = BIC, the ILM equals 1. Accordingly, operational risk capital corresponds to the BIC.
- For LC > BIC, the ILM exceeds 1. Accordingly, operational risk capital is higher than the BIC implying that banks with losses exceeding the BIC need to hold higher operational risk capital.
- Conversely, for LC < BIC, the ILM is less than 1. Accordingly, the operational risk capital requirement is lower than the BIC.

The calculation of the LC must be based on 10 years of high-quality annual loss data and is subject to qualitative requirements for loss data collection.

## ANNEX I

### EXTERNAL CREDIT ASSESSMENT INSTITUTIONS

Under the Standardised Approach, banks will rely on the credit assessments prepared by ECAIs. For such ratings to be used for capital adequacy purposes, the ECAI must first be recognized as eligible by the Central Bank, as well as an appropriate mapping of the ratings of individual ECAI ratings.

The Recognition Process: The Central Bank will determine on a continuing basis whether an ECAI meets the eligibility criteria provided below. The IOSCO Code of Conduct Fundamentals for Credit Rating Agencies will also be referenced when determining ECAI eligibility. The assessments of ECAIs may be recognized on a limited basis, e.g. by type of claims or by jurisdiction.

#### A.1.1 Eligibility Criteria

An ECAI must satisfy each of the following eight criteria:

- **Objectivity:** The methodology for assigning external ratings must be rigorous, systematic, and subject to some form of validation based on historical experience. Moreover, external ratings must be subject to ongoing review and responsive to changes in financial condition. Before being recognised by supervisors, a rating methodology for each market segment, including rigorous back testing, must have been established for at least one year and preferably three years.
- **Independence:** An ECAI should be independent and should not be subject to political or economic pressures that may influence the rating. In particular, an ECAI should not delay or refrain from taking a rating action based on its potential effect (economic, political or otherwise). The rating process should be as free as possible from any constraints that could arise in situations where the composition of the board of directors or the shareholder structure of the CRA may be seen as creating a conflict of interest. Furthermore, an ECAI should separate operationally, legally and, if practicable, physically its rating business from other businesses and analysts.
- **International access/Transparency:** The individual ratings, the key elements underlining the assessments and whether the issuer participated in the rating process should be publicly available on a non-selective basis, unless they are private ratings, which should be at least available to both domestic and foreign institutions with legitimate interest and on equivalent terms. In addition, the ECAI's general procedures, methodologies and assumptions for arriving at ratings should be publicly available.
- **Disclosure:** An ECAI should disclose the following information: its code of conduct; the general nature of its compensation arrangements with assessed entities; any conflict of interest, the ECAI's compensation arrangements, its assessment methodologies, including the definition of default, the time horizon, and the meaning of each rating; the actual default rates experienced in each assessment category; and the transitions of the ratings, e.g. the likelihood of AA ratings becoming A over time. A rating should be disclosed as soon as practicably possible after issuance.
- **Resources:** An ECAI should have sufficient resources to carry out high-quality credit assessments. These resources should allow for substantial ongoing contact with senior and operational levels within the entities assessed in order to add value to the credit assessments. In particular, ECAIs should assign analysts with appropriate knowledge and experience to assess the creditworthiness of the type of entity or obligation

being rated. Such assessments should be based on methodologies combining qualitative and quantitative approaches.

- **Credibility:** To some extent, credibility is derived from the criteria above. In addition, the reliance on an ECAI's external ratings by independent parties (investors, insurers, trading partners) is evidence of the credibility of the ratings of an ECAI. The credibility of an ECAI is also underpinned by the existence of internal procedures to prevent the misuse of confidential information. In order to be eligible for recognition, an ECAI does not have to assess firms in more than one country.
- **No abuse of unsolicited ratings:** ECAIs must not use unsolicited ratings to put pressure on entities to obtain solicited ratings. Supervisors should consider whether to continue recognizing such ECAIs as eligible for capital adequacy purposes, if such behaviour is identified.
- **Cooperation with the supervisor:** ECAIs should notify the supervisor of significant changes to methodologies and provide access to external ratings and other relevant data in order to support initial and continued determination of eligibility.

### **A.1.2 The Mapping Process**

The Central Bank will assign eligible ECAIs' assessments to the RWs available under the risk-weighting framework outlined in this document, i.e. deciding which assessment categories correspond to which RWs. The mapping process would be objective and result in a RW assignment consistent with that of the level of credit risk reflected in the tables above (for the respective RW category). It would cover the full spectrum of RWs. When conducting such a mapping process, factors that supervisors should assess include, among others, the size and scope of the pool of issuers that each ECAI covers, the range and meaning of the ratings that it assigns, and the definition of default used by the ECAI.

Banks must use the chosen ECAIs and their ratings consistently for all types of claim where they have been recognized by their supervisor as an eligible ECAI, for both risk-weighting and risk management purposes. Banks will not be allowed to "cherry-pick" the ratings provided by different ECAIs and to arbitrarily change the use of ECAIs.

Licensees are to regularly monitor the credit ratings assigned by ECAIs. Relevant adjustments must be made to the capital calculation once there are changes to the ratings assigned to a counterparty's exposure. Banks are also required to keep a record of the ratings for each line item.

If there is only one rating by an ECAI chosen by a bank for a particular claim, that rating should be used to determine the RW of the exposure. If there are two ratings by ECAIs chosen by a bank that map into different RWs, the higher RW will be applied. If there are three or more ratings with different RWs, the two ratings that correspond to the lowest RWs should be referred to. If these give rise to the same RW, that RW should be applied. If different, the higher RW should be applied.

### **A.1.3 Determination of whether an exposure is rated: Issue-specific and issuer ratings**

Where a bank invests in a particular issue that has an issue-specific assessment, the RW of the claim will be based on this assessment. Where the claim is an investment in an issue that has not been specifically assessed, the bank can rely on a specific credit assessment of an issued debt or on a credit assessment of the issuer. The following general principles will apply:

- Where the borrower has a specific rating for an issued debt – but the bank’s exposure is not an investment in this particular debt – a high-quality credit rating (one which maps into a RW lower than that which applies to an unrated claim) on that specific debt may only be applied to the bank’s unrated exposure if this claim ranks in all respects pari passu or senior to the claim with a rating. If not, the external rating cannot be used and the unassessed claim will receive the RW for unrated exposures.
- Where the borrower has an issuer rating, this rating typically applies to senior unsecured claims on that issuer. Consequently, only senior claims on that issuer will benefit from a high-quality issuer rating. Other unassessed exposures of a highly rated issuer will be treated as unrated. If either the issuer or a single issue has a low-quality rating (mapping into a RW equal to or higher than that which applies to unrated exposures), an unassessed exposure to the same counterparty that ranks pari passu or is subordinated to either the senior unsecured issuer rating or to the exposure with a low-quality rating will be assigned the same RW as is applicable to the low-quality assessment.
- Where the issuer has a specific high-quality rating (one which maps into a lower RW) that only applies to a limited class of liabilities (such as a deposit assessment or a counterparty risk assessment), this may only be used in respect of exposures that fall within that class.

Whether banks intend to rely on an issuer- or an issue-specific assessment, the assessment must take into account and reflect the entire amount of credit risk exposure (principal and interest where applicable) that banks have with regard to all payments owed to them.

#### **A.1.4 Recognized ECAIs**

The following ECAIs will be recognized for capital adequacy purposes:

- Moody’s Investors Service;
- Standard and Poor’s (S&P);
- Fitch Rating Services;

The list of eligible ECAIs will be updated subject to applicants satisfying the eligibility criteria outlined above.

The ratings of the respective ECAIs are to be mapped as follows:

#### *Short Term Rating*

<b>S&amp;P</b>	<b>Fitch</b>	<b>Moody</b>
A-1	F-1	P-1
A-2	F-2	P-2
A-3	F-3	P-3

## Long term Rating

<b>S&amp;P</b>	<b>Fitch</b>	<b>Moody's</b>
AAA to AA-	AAA to AA-	Aaa to Aa3
A1 to A3	A+ to A-	A1 to A3
BBB+ to BBB-	BBB+ to BBB-	Baa1 to Baa3
BB+ to B-	BB+ to B-	Ba1 to B3
Below B-	Below B-	Below B3
Unrated	Unrated	Unrated

### A.1.5 Short Term / Long Terms Assessments

For risk-weighting purposes, short-term ratings are deemed to be issue-specific. They can only be used to derive RWs for exposures arising from the rated facility. They cannot be generalized to other short-term exposures, except under the conditions where short-term ratings are available (see below). In no event can a short-term rating be used to support a RW for an unrated long-term exposure. Short-term ratings may only be used for short-term exposures against banks and corporates. The table below provides a framework for banks' exposures to specific short-term facilities, such as a particular issuance of commercial paper:

<b>Short Term Rating</b>		
<b>S&amp;P</b>	<b>Fitch</b>	<b>Risk Weight</b>
A-I / P-I <sup>39</sup>	F1	20%
A2/P-2	F2	50%
A3/P3	F3	100%
Others <sup>40</sup>		150%

If a short-term rated facility attracts a 50% RW, unrated short-term exposures cannot attract a RW lower than 100%. If an issuer has a short-term facility with an external rating that warrants a RW of 150%, all unrated exposures, whether long-term or short-term, should also receive a 150% RW, unless the bank uses recognized CRM techniques for such exposures.

In cases where short-term ratings are available, the general preferential treatment for short-term exposures to banks will apply for the following (see section 4.3.3 Claims on Banks):

- The general preferential treatment for short-term exposures applies to all exposures to banks of up to three months' original maturity when there is no specific short-term claim assessment.
- When there is a short-term rating and such a rating maps into a RW that is more favourable (i.e. lower) or identical to that derived from the general preferential treatment, the short-term rating

<sup>39</sup> The notations follow the methodology used by Standard & Poor's, Moody's Investors Service and Fitch Ratings. The A-1 rating of Standard & Poor's includes both A-1+ and A-1- and the F rating of Fitch ratings includes both the modifiers "+" and "-".

<sup>40</sup> This category includes all non-prime and B or C ratings.



should be used for the specific exposure only. Other short-term exposures would benefit from the general preferential treatment.

- When a specific short-term rating for a short-term exposure to a bank maps into a less favourable (higher) RW, the general short-term preferential treatment for interbank exposures cannot be used. All unrated short-term exposures should receive the same RW as that implied by the specific short-term rating.

When a short-term rating is to be used, the institution making the assessment needs to meet all of the eligibility criteria for recognising ECAIs, as described in section A.1.1 Eligibility Criteria, in terms of its short-term ratings.

#### **A.1.6 Other issues**

In order to avoid any double counting of credit enhancement factors, no supervisory recognition of credit risk mitigation techniques will be taken into account if the credit enhancement is already reflected in the issue specific rating.

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

Level of application of the rating: external assessments for one entity within a corporate group cannot be used to RW other entities within the same group.

Generally, banks should use solicited ratings from eligible ECAIs. The Central Bank may allow banks to use unsolicited ratings in the same way as solicited ratings, if it is satisfied that the credit assessments of unsolicited ratings are not inferior in quality to the general quality of solicited ratings.

## ANNEX II

### CAPITAL TREATMENT FOR FAILED TRADES AND NON-DvP TRANSACTIONS

#### I. Overarching principles

1. Banks should continue to develop, implement and improve systems for tracking and monitoring the credit risk exposures arising from unsettled and failed transactions as appropriate for producing management information that facilitates action on a timely basis.
2. Transactions settled through a delivery-versus-payment system (DvP), providing simultaneous exchanges of securities for cash, expose firms to a risk of loss on the difference between the transaction valued at the agreed settlement price and the transaction valued at current market price (i.e. **positive current exposure**). Transactions where cash is paid without receipt of the corresponding receivable (securities, foreign currencies, gold, or commodities) or, conversely, deliverables were delivered without receipt of the corresponding cash payment (non-DvP, or free-delivery) expose firms to a risk of **loss on the full amount** of cash paid or deliverables delivered. The current rules set out specific capital charges that address these two kinds of exposures.
3. The following capital treatment is applicable to all transactions on securities, foreign exchange instruments, and commodities that give rise to a risk of delayed settlement or delivery. This includes transactions through recognised clearing houses that are subject to daily mark-to-market and payment of daily variation margins and that involve a mismatched trade. Repurchase and reverse-repurchase agreements as well as securities lending and borrowing that have failed to settle are excluded from this capital treatment.
4. In cases of a system wide failure of a settlement or clearing system, a national supervisor 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.

#### II. Capital requirements

1. For DvP transactions, if the payments have not yet taken place five business days after the settlement date, firms must calculate a capital charge by multiplying the positive current exposure of the transaction by the appropriate factor, according to the **Table 1** below.

**Table 1**

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

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

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