



**SUPERVISORY AND REGULATORY GUIDELINES: PU62-0210S**  
**Market Risk Guidelines**  
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**GUIDELINES ON THE MANAGEMENT OF MARKET RISK**

**1. INTRODUCTION**

- 1.1. The Central Bank of The Bahamas (“the Central Bank”) is responsible for the licensing, regulation and supervision of banks and trust companies operating in and from within The Bahamas, pursuant to the Central Bank of The Bahamas Act, 2000 and the Banks and Trust Companies Regulation Act, 2000. Additionally, the Central Bank has the duty, in collaboration with financial institutions, to promote and maintain high standards of conduct and management in the provision of banking and trust services.
- 1.2. All licensees are required to adhere to the Central Bank’s licensing and prudential requirements, ongoing supervisory programs and regulatory reporting requirements, and are subject to periodic on-site examinations. Licensees are required to conduct their affairs in conformity with all other Bahamian legal requirements.

**2. PURPOSE**

- 2.1. Market Risk is defined as the risk of losses in on and off-balance sheet positions arising from movement in market prices. Licensees operating in the foreign exchange, commodities, interest rate, or equity markets may be exposed to potentially large fluctuations in market prices. Potential market risk losses may also result from the influence of other risk factors such as volatility and liquidity. These losses may arise from both general market price movements and, in the case of interest rate and equity instruments, from price movements specific to particular issuers. The capital required to guard against potential loss should be commensurate with the risks involved.
- 2.2. The market risk capital requirement is expressed in terms of two (2) separately calculated charges: *general market risk* and *specific risk*. Positions in interest rate, equities, foreign exchange and commodities all give rise to general market risk. Specific risk is only relevant for interest rate and equity positions related to a specific issuer.
- 2.3. These Guidelines aim to ensure that all licensees that are engaged in activities that give rise to risks associated with potential movements in market prices adopt management practices and meet capital requirements that are commensurate with the risks involved. These Guidelines form part of a comprehensive set of prudential standards dealing with

capital adequacy. It should be read in conjunction with the Central Bank's *Guidelines for the Management of Capital Adequacy* (on the website: [www.centralbankbahamas.com](http://www.centralbankbahamas.com)).

### 3. APPLICABILITY

- 3.1. These Guidelines apply to all public banks and bank and trust companies incorporated in The Bahamas (referred to as “licensees”) that have a trading book (see Section 4) and meets the *de minimis threshold* as follows:
- i. The licensee's market risk position is  $\geq 5\%$  of the total on- and off-balance sheet assets; or
  - ii. The licensee's market risk positions is  $\geq$  US\$100 million; and
  - iii. In the case of a licensee that is jointly regulated by the Central Bank and the Securities Commission of The Bahamas, the licensee's market risk positions is  $\geq$  US\$25 million.
- 3.2. Banks with market risk positions that do not meet the de minimis threshold i.e. (i) to (iii) above are exempt from complying with the market risk capital requirements.
- 3.3. These Guidelines do not apply to pure trust companies or branches of foreign banks. The Central Bank recognizes that the market risk measurement and management framework will depend to some extent on the range and complexity of activities undertaken by a licensee.
- 3.4. The Central Bank reserves the right to apply the market risk capital requirements to other banks, on a case-by-case basis, if the Central Bank determines that, inter alia, the trading activities are a large proportion of a licensee's overall operations.

### 4. DEFINITIONS

- 4.1. 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. In addition, positions should be frequently and accurately valued, and the portfolio should be actively managed. Positions held with trading intent are those held intentionally for short-term resale and/or with the intent of benefiting from actual or expected short-term price movements or to lock in arbitrage profits, and may include, for example, proprietary positions, positions arising from client servicing (e.g., matched principal broking) and market making. Licensees should have a policy that specifies what items are allocated to its trading book.
- 4.2. 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.

- 4.3. **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.
- 4.4. **General market risk** is defined as the risk of loss arising from adverse changes in market prices.

## 5. MARKET RISK MANAGEMENT

5.1. Licensees in accordance with the requirements herein shall establish a sound and reliable system for market risk management commensurate with the nature, scale and complexity of the business. The system for the management of market risk shall include the following basic elements:

- (i) Effective oversight and control by the board of directors (the Board) and senior management;
- (ii) Sound policies and procedures for the management of market risk;
- (iii) Sound procedures for identifying, measuring, monitoring and controlling market risk;
- (iv) Sound internal controls and independent external audit; and
- (v) Appropriate mechanism for market risk capital allocation.

5.2. Licensees must establish and maintain adequate systems and controls sufficient to give management and supervisors the confidence that their valuation estimates are prudent and reliable. These systems must be integrated with other risk management systems within the organization (such as credit analysis). Such systems must include:

- (i) Documented policies and procedures for the process of valuation. This includes clearly defined responsibilities of the various areas involved in the determination of the valuation, sources of market information and review of their appropriateness, frequency of independent valuation, timing of closing prices, procedures for adjusting valuations, end of the month and ad-hoc verification procedures; and
- (ii) Clear and independent (i.e., independent of front office) reporting lines for the department accountable for the valuation process. The reporting line should ultimately be to a main board executive director.

5.3. Licensees should value the trading book positions by marking-to-market at least the daily valuation of positions at readily available close out prices that are sourced independently. Examples of readily available close out prices include exchange prices, screen prices, or quotes from several independent reputable brokers.

- 5.4. Licensees must mark-to-market as much as possible. The more prudent side of bid/offer must be used, unless the institution is a significant market maker in a particular position type and it can close out at mid-market.
- 5.5. In carrying out its market risk management, a licensee shall consider the relationship of market risk with the other types of risks such as credit risk, liquidity risk, operational risk, legal risk, and reputational risk; and align its policies and procedures for market risk with the other risks.
- 5.6. Licensees should have systems in place to:
- (i) Ensure that positions are assigned correctly between its banking book and its trading book;
  - (ii) Ensure that arrangements are in place to prevent inappropriate switching of transactions between the trading and banking books; and
  - (iii) Control transfers of position from one book to the other, both at the inception of a deal and, if the intent changes, during the life of the deal/position.
- 5.7. The integrity and timeliness of data on current positions is also a key component of the risk measurement process. Licensees should have adequate management information systems (MIS) for measuring, monitoring, controlling and reporting market risk. Reports must be provided on a timely basis to the licensee's Board, senior management and, where appropriate, to individual business line managers. Such reports should also ensure the effectiveness of information technology controls to vet the security of trading data and sensitive client information.

### **Board and Senior Management Oversight**

- 5.8. The Board and senior management of a licensee shall implement effective oversight and control of the management of market risk. Effective supervision by the Board and senior management is critical for sound market risk management. The formality and sophistication with which the Board and senior management fulfill their responsibilities may vary significantly among licensees, depending on the level of the licensee's risk and complexity of its holdings and activities. Regardless of the size of the licensee, the Board and senior management should ensure that there is adequate separation of duties in key elements of the risk management process to avoid potential conflicts of interest. Therefore, licensees should have risk measurement, monitoring, and control functions, with clearly defined duties, that are sufficiently independent from its position-taking functions, which report risk exposures directly to senior management and the Board.

### **Board of Directors' Responsibilities and Duties**

- 5.9. The Board has the ultimate responsibility for understanding the nature and the level of market risk exposure taken by the licensee. It must ensure that the licensee implements sound fundamental principles that facilitate the identification, measurement, monitoring,

and control of market risk. Furthermore, the Board should encourage discussions between its members and senior management - as well as between senior management and staff - regarding the licensee's market risk exposures and management process.

- (i) The Board shall adopt a market risk strategy and policies for market risk measurement, management and control (see Section 6);
- (ii) The Board must ensure that senior management implement and adhere to the adopted market risk strategy and policy for market risk measurement, management and control. Risk management and control shall be subject to regular oversight and review by the Board;
- (iii) The Board shall ensure that, at all times, they have access to timely information on the licensee's risk-taking position. They shall regularly analyze this information in such detail as to be able to assess the amount of risk taken by the licensee and review the risk measurement, management and control taken by senior management;
- (iv) The Board shall, at least once a year, establish the level of desirable risk-taking and ensure that appropriate market risk limits have been set. Market risk limits, which may include trade limits, risk limits and stop-loss limits, can be broken down by region, business operation, asset portfolio, financial instrument and risk type. The overall market risk limit and the types and structure of limits of a licensee shall be approved by the Board;
- (v) The Board shall ensure that the licensee's remuneration policy is not in conflict with its market risk strategy. The remuneration schemes for staff responsible for trading products containing market risk and in derivatives must not be set up in such a way that they provide an incentive for excessive market risk-taking; and
- (vi) The Board shall adopt the strategy and policy for derivatives trading.

### **Senior Management Responsibilities and Duties**

5.10. Senior Management should ensure that the licensee's operations and level of market risk are effectively managed and that appropriate risk management policies and procedures are established and maintained. Senior management must also ensure that resources are available to evaluate and control market risk, which allows the licensee to conduct its activities in a safe and sound manner.

5.11. Senior Management shall:

- (i) Be responsible for implementing the market risk strategy adopted by the Board for establishing and maintaining market risk measurement, management as a part of internal control. Senior Management shall be responsible for developing, adopting and updating procedures for the identification, measurement, mitigation, monitoring and controlling of market risk;

- (ii) Adopt principles and methodologies for risk measurement and valuation, which must be properly documented;
- (iii) Be responsible for maintaining an appropriate framework of market risk limits and designating clear risk-taking powers;
- (iv) Be responsible for ensuring that the staff clearly understand and adhere to the entity's market risk strategy and key principles for market risk management and control; and
- (v) Set up an organization for market risk management and control and designate the duties of the different units and staff within this organization. In designating the duties, attention must be paid to proper segregation of duties and tasks to avoid potentially harmful combinations of duties and non-compliance with guidelines.

### **Middle Office**

- 5.12. The middle office staff is inherently positioned to best monitor treasury operations, specifically clearing trades and processing client financial requests. Middle office staff may prepare forecasts showing the effects of various changes in market conditions and risk exposures or submit recommendations to the Board on the improvement of treasury and fiduciary protocols.
- 5.13. Segregation of duties should be evident in the middle office, which may report to the Risk Management Committee (RMC) or Asset & Liability Committee (ALCO), independently of the treasury function. Licensees without a formal middle office should ensure that risk control and analysis rests with a department/unit with clear reporting independence from treasury or risk-taking units.

### **Internal Audit**

- 5.14. The internal audit should be functionally separate from management oversight of the trading function. It will be the responsibility of internal audit to, inter alia:
- i. Ensure that dealers observe the policies and code of behavior;
  - ii. Ensure that accounting procedures meet the necessary standards of accuracy, promptness and completeness;
  - iii. Verify the adequacy and accuracy of management information reports;
  - iv. Conduct internal audits regularly and make occasional spot checks;
  - v. Seek, periodically, in conjunction with management, an exchange of information on outstanding contracts with the counterparties to the contracts, as a safeguard against malpractices; and
  - vi. Review the trading limits and controls, investigate potential conflicts of interest, and ensure trading valuation systems are accurate and mitigate excessive risk taking.

## 6. MARKET RISK POLICY STATEMENTS

- 6.1. Licensees are expected to have an established policy for allocating transactions (including internal deals) to the trading and non-trading (i.e., banking) book as well as procedures to ensure compliance with the policy. There should be a clear audit trail at the time each transaction is conducted. The Central Bank will examine the adequacy of the policy and procedures and their consistent implementation, when it considers it necessary. For this purpose, banks which engage in trading activities should submit to the Central Bank a policy statement covering:
- i. The definition of trading activities;
  - ii. The financial instruments which can be traded or used for hedging the trading book portfolios; and
  - iii. The principles used for transferring positions between the trading and banking books.
- 6.2. Licensees' policy statements should be approved by their Board or by a committee of the board (i.e., ALCO or RMC).
- 6.3. The policy statement should be reviewed and, where necessary, updated annually with any major changes approved by its board or a body delegated with this responsibility by the board. A licensee must inform the Central Bank when a review has taken place and major changes made.
- 6.4. Licensees' policy statements should explicitly require that all trading book positions are marked-to-market on a daily basis.

## 7. MARKET RISK CAPITAL REQUIREMENTS

### Capital Requirement

- 7.1. The Central Bank requires all licensees, with the exception of pure trust companies, restricted licensees and foreign branches, to maintain a capital adequacy ratio of at least 8 percent at all times (see the *Guidelines for the Management of Capital Adequacy*). Certain licensees may be required to hold higher minimum capital levels, based on their risk profile. Licensees must hold capital against all marked-to-market interest rate related instruments equities and associated derivatives arising from positions held in the trading book. In addition, licensees' capital must be held against all foreign exchange and commodity risks position that are held in both the banking and trading books.

$$\text{Minimum CAR} = \frac{\text{Tier 1 Capital} + \text{Tier 2 Capital}}{\text{RWA}(\text{CR} + \text{MR})} = 8\%$$

Where:

**CR** = Credit Risk      **MR** = Market Risk      **RWA** = Risk Weighted Assets

- 7.2. In cases where licensees undertake significant market risk in the course of their business strategy, capital should be allocated specifically to support this risk. Should the Central Bank, through its risk assessment process, conclude that the market risk exposure of a licensee is high relative to current capital, it will discuss this concern with senior management of the licensee. Depending on the circumstances, the Central Bank may require a licensee to strengthen its capital position or reduce its level of market risk exposure.

### Measurement Approach

- 7.3. Given the nature, scope and complexity of banks operating from and within The Bahamas, the Central Bank has determined that banks subject to the market risk capital requirements should use the Basel Standardized Approach. The standardized methodology uses a "building-block" approach. Although the Central Bank employs the standardised approach for regulatory purposes, we agreed to allow licensees to utilize the internal models approach when reporting to their head office. The Basel Framework specifies both the qualitative and quantitative characteristics that a supervisor can use to determine whether to approve an Internal Model (e.g., VaR models, etc). The capital charge for each risk category is determined separately. Each risk category is aggregated to derive a Total Market Risk Capital Charge, which is applied against the capital level of the licensee. Within the interest rate and equity position risk categories, separate capital charges for specific risk and the general market risk arising from debt and equity positions are calculated. For commodities, options, and foreign exchange, there is only a general market risk capital requirement. Details on the standardised method of calculation are set out in the *Guidance Notes for the Completion of the Market Risk Reporting Forms*.
- 7.4. To complement the above risk measurement techniques, licensees should also measure their vulnerability to loss in stressed market conditions in both their banking and trading book portfolios by conducting stress tests, incorporating extreme but plausible assumptions for the relevant risk factors and giving special considerations to positions that may be difficult to liquidate or offset in stressful situations. The Board and senior management should consider the results of stress tests when establishing and reviewing strategies, policies and limits for market risk.

## 8. REPORTING REQUIREMENTS

- 8.1. Once a bank has a trading book that is consistent with the definition under Section 4 above and meets the *de minimis* threshold, the bank will be required to report on its trading book activities using the market-risk related forms in the Excel Reporting System (ERS).
- 8.2. In addition, all licensees are required to report in the ERS, their interest rate risk exposures and foreign currency exposures in the **Interest Rate Sensitivity** and the

**Investments by Currency Type** forms respectively, on a quarterly basis or a frequency otherwise determined.