



**GUIDELINES TO THE SECURITIES (PRUDENTIAL)
REGULATIONS, 2014**

PART I

The Financial Services Commission

39-43 Barbados Avenue

Kingston 5, Jamaica W.I.

Telephone No. (876) 906-3010

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FINANCIAL SERVICES COMMISSION

GUIDELINES TO THE SECURITIES (PRUDENTIAL) REGULATIONS, 2014 - PART I

1.0 BACKGROUND

- 1.01 The Securities (Prudential) Regulations, 2014, hereafter referred to as the Regulations, were enacted on December 30, 2014. These regulations serve to strengthen the prudential supervision of the securities industry by the Financial Services Commission, hereafter referred to as the Commission. Although several prescriptive measures are mentioned in the regulations, there is need for more clarity with respect to the method of computation for specified regulatory metrics and corresponding benchmarks as well as how other areas of the regulations are to be implemented. The Guidelines to The Securities (Prudential) Regulations, 2014 – Part I, hereafter referred to as the Guidelines, seek to provide this clarity as well as to execute the Commission's Strategy for Prudential Tightening, which took effect on March 31, 2016.
- 1.02 The Commission adopted the approach of releasing the Guidelines in Parts. This has the advantage of allowing for more time for the securities industry to become compliant with the Guidelines and for the Commission to assess the impact of the new prudential measures on the Industry and to properly develop other areas of the Guidelines prior to their introduction.

2.0 DEFINITIONS AND APPLICATION

- 2.01 Part I of the Guidelines provides guidance on:
- (i) The inclusion of an operational risk weighted assets component in the computation of the capital base to risk-weighted assets ratio;
 - (ii) The benchmarks to be applied to the capital adequacy and leverage ratios;
 - (iii) Expectations in relation to liquidity management practices; and
 - (iv) The stress testing function which licensees are expected to carry out.
- 2.02 To aid with the understanding and interpretation of the Guidelines, it is recommended that the Guidelines be read in conjunction with the Regulations.

2.03 “Licensee” refers to a securities dealer licensed under the Securities Act.

3.0 CAPITAL ADEQUACY

3.1 Computation of Capital Adequacy Ratio

3.11 Regulation 3 (2) of the Regulations stipulates that –

“Every licensee shall maintain at all times, a capital adequacy ratio between its capital base and its risk-based assets and other risk exposures of not less than the percentage specified, from time to time, by the Commission”.

3.12 In accordance with Part A of the Schedule to the Regulations, the capital adequacy ratio is computed as follows –

$$\text{Capital Adequacy Ratio} = \frac{\text{Capital Base}}{\text{CRWA} + \text{MRWA} + \text{ORWA} + \text{FXE}}$$

Where: –

Capital base is defined as (Tier 1 Capital + Tier 2 Capital) – prescribed deductions;

CRWA = total credit risk weighted assets;

MRWA = total market risk weighted assets = Σ (specific market risk capital charges + general market risk capital charges);

ORWA = total operational risk weighted assets; and

FXE = foreign exchange exposure

3.13 Tier 1 Capital, Tier 2 Capital, and prescribed deductions have the same meaning as outlined in section 2 of the Regulations with the exception that retained earnings that have not been transferred to a reserve, and current year- to-date profit, will be considered a part of tier 1 capital until further notice is provided in a subsequent tranche of the Guidelines.

3.14 Each licensee shall maintain at all times a capital base comprising of not less than fifty per cent (50%) of Tier 1 capital, provided that such percentage may be varied from time to time by notice issued by the Commission.

3.15 The computation of CRWA, MRWA and FXE should be done as stipulated in regulations 11, 12 and 13 of the Regulations respectively, with further guidance provided in Part B of the Schedule to the Regulations.

3.16 As stipulated in regulation 17 of the Regulations,

“A licensee shall determine the total operational risk-weighted assets (or ORWA) amount by applying to the aggregate value of total balance sheet assets and off balance sheet funds under management, a factor that the Commission may specify, from time to time, by notice published in the Gazette or by other written means”.

3.17 In computing the ORWA, a factor, $\alpha = 0.40\%$, should be applied. The Commission may however vary the value of this factor if it deems that another value is more appropriate or better aligned with business or market conditions.

3.18 The Commission may change the methodology for computing any component in the Capital Adequacy Ratio, based on the results of market research or observed international best practices.

3.19 The minimum capital adequacy ratio in accordance with Regulation 3 (2) of the Regulations is set out in column 1 of Table 1.

The percentage to be specified by the Commission, below which the licensee is required to notify the Commission in writing in accordance with regulation 3 (5) of the Regulations, is set out in column 2 of Table 1. After notifying the Commission, the licensee should submit a plan of action to the Commission outlining the steps that will be taken to prevent further deterioration in the capital adequacy ratio, and to bring it to at least the percentage specified in column 2 of Table 1.

Table 1

| Column 1 | Column 2 |
|---|--|
| Minimum Ratio of Capital Base to Risk-Based Assets and other Risk Exposures | Ratio of Capital Base to Risk Based Assets and other Risk Exposures below which the Commission is to be notified |
| 10% | 14% |

3.2 Computation of Leverage Ratio

3.21 In accordance with regulation 5(1) of the Regulations,

“Every licensee shall maintain at all times a leverage ratio of not less than the percentage specified, from time to time, by the Commission”

3.22 In accordance with Part A of the Schedule to the Regulations, the leverage ratio is computed as follows –

$$\text{Leverage Ratio} = \frac{\text{Total Balance Sheet Capital}}{\text{Total Balance Sheet Assets}}$$

- 3.23 The minimum leverage ratio to be maintained by each licensee in accordance with regulation 5(1) of the Regulations is 6 per cent (6%).

4.0 LIQUIDITY MANAGEMENT

4.1 *Introduction to Liquidity Management*

- 4.11 The Guidelines on Liquidity Management set out principles and practical guidance for sound liquidity management that each licensee is expected to adopt. The text was extracted from the Commission's Securities Bulletin entitled Liquidity Management for Security Dealers that are not licensed deposit takers (SR-GUID-04/11-0013), while the original text was drawn from the Office of Thrift Supervision, Regulatory Bulletin, RB 32-32, dated December 2, 2003¹.
- 4.12 The Commission requires that every licensee maintains sufficient liquidity to ensure that its operations are safe and sound. In accomplishing this, licensees shall develop and monitor liquidity management programmes in the manner outlined in regulation 15 of the Regulations.
- 4.13 Liquidity refers to the availability of funds, or assurance that funds will be available, to honour all cash outflow commitments (both on- and off-balance sheet) as they fall due.
- 4.14 Liquidity risk is the risk that an entity is unable to meet the payment obligations associated with its financial liabilities when they fall due and to replace funds when they are withdrawn.
- 4.15 Liquidity management describes the process that an entity employs to reduce its liquidity exposure i.e. the possibility that the entity is unable to meet its financial obligations at a reasonable cost and in a timely manner. It involves balancing the trade-off between profitability and the risk of illiquidity.

4.2 Liquidity Management Requirements

4.21 *General*

- (i) Every licensee should have a written strategy for the day-to-day management of liquidity. The liquidity strategy should define the licensee's general approach to managing liquidity, including various quantitative and qualitative targets. The liquidity strategy should cover specific policies on the composition of assets and liabilities, the use of institutional/broker funding, and strategies for addressing temporary and longer-term liquidity disruptions.
- (ii) The sophistication of a licensee's policies, procedures, and information systems for managing liquidity should be related to the following items:

¹ Permission was obtained from Mr Scott Albinson, Managing Director, in the Office of Thrift Supervision. To gain full benefit, it is recommended that the Guidelines be read in conjunction with the Securities Bulletin entitled Liquidity Management for Security Dealers that are not licensed deposit takers (SR-GUID-04/11-0013).

- (a) Size and complexity of the licensee;
 - (b) Strength and stability of the licensee's core investor base;
 - (c) The licensee's dependence on institutional/broker funding;
 - (d) Variability of the licensee's cash flows; and
 - (e) Financial condition of the licensee.
- (iii) Licensees with deteriorating financial condition should increase the attention given to liquidity management and contingency planning.

4.22 Board and Senior Management Oversight

4.221 Board of Directors

- (i) The board of directors should establish the licensee's tolerance for liquidity risk, set liquidity requirements, and approve significant policies related to liquidity management.
- (ii) The board should ensure that senior management takes the necessary steps to monitor and control liquidity risk.
- (iii) The board should understand the nature and level of the licensee's liquidity risk, and management should inform the board regularly of the liquidity position of the licensee.

4.222 Senior Management

- (i) Senior management should establish policies, procedures, and guidelines for managing and monitoring liquidity to ensure adequate liquidity at all times. Policies should include internal controls.
- (ii) Senior management should review the licensee's liquidity position on a regular basis and monitor internal and external factors and events that could have a bearing on the licensee's liquidity.
- (iii) Senior management should prepare contingency funding plans.
- (iv) Senior management should periodically review the licensee's liquidity strategies, policies, and procedures.

4.23 Policies and Procedures

- (i) A licensee should have clearly defined policies and procedures for managing liquidity.
- (ii) The board of directors should have ultimate responsibility for the adequacy of policies and

Procedures, while senior management should have responsibility for their design and implementation.

- (iii) Policies and procedures should include the following:
 - (a) Delineated lines of responsibility;
 - (b) An overall liquidity strategy;
 - (c) A process for measuring and monitoring liquidity;
 - (d) Quantitative guidelines and limits; and
 - (e) Internal control procedures to ensure adherence to policies and procedures that address the integrity of the liquidity risk management process.

4.24 *Management Information Systems*

- (i) Each licensee should have adequate information systems for measuring, monitoring, and controlling liquidity risk:
 - (a) A management information system should provide timely information on the licensee's current and prospective liquidity position.
 - (b) Licensees should be able to project their liquidity position and liquidity requirements over various time horizons and scenarios.
 - (c) Licensees should clearly define assumptions used in projections in order to be able to evaluate the appropriateness and validity of the projections.
 - (d) The information system should provide the data needed by licensees to determine compliance with the licensees' liquidity policies, procedures, and limits.

4.25 *Measuring and Monitoring Liquidity*

- (i) Licensees should take steps to address projected net funding deficits in a timely manner. Management and other staff responsible for managing overall liquidity should be aware of any information, such as a pending decline in earnings, or an impending legal action that could have an adverse impact on perceptions about the financial condition of the licensee.
- (ii) Licensees should also consider conducting scenario analysis in estimating liquidity requirements. In conducting an analysis of liquidity, licensees should consider the following scenarios:
 - (a) The range of possible future scenarios, such as optimistic, pessimistic, and most likely.
 - (b) Stressful events such as a loss of institutional/broker funding, a significant maturity of repos, or a sharp increase in funding costs.
 - (c) Cash flow timing differences and the related assumptions among scenarios.

- (d) The potential for unanticipated cash outflows and reduced cash inflows associated with embedded options in various assets, liabilities, and off-balance-sheet contracts. Potential cash outflows include financial guarantees, margin calls and early termination of repo contracts.

4.26 Contingency Planning

- (i) Each licensee should have a contingency plan for handling unanticipated stressful scenarios that could result in a significant erosion of licensee specific or general-market liquidity.
- (ii) Licensees should update the plan on a regular basis. A contingency plan should accomplish the following:
 - (a) Provide for the consistently planned use of liquidity sources within the licensee's stated purposes and objectives of its liquidity programme.
 - (b) Identify and assess the adequacy of financial resources (source of funds) for contingent needs. The plan should identify all back-up facilities (lines of credit), the conditions related to their use and the circumstances where the licensee might use them.
 - (c) Define responsibilities and decision-making authority so that all personnel understand their role during a problem situation.
 - (d) Identify the sequence that the licensee will mobilize and commit key sources of funds for contingent needs.
 - (e) Address implementation issues such as procedures by which resources are committed for emergency use or released from one use and transferred to another.
 - (f) Identify other actions necessary in the event of an unexpected contingency.
 - (g) Assess the potential for funding erosion (magnitude and rate of outflow) by source of funds under different scenarios.

4.27 Managing Access to Funding Sources

- (i) Licensees should carefully manage their access to available sources of funding and understand their funding options:
 - (a) Licensees should build and maintain relationships with a broad range of funding sources. Licensees should understand how much funding might be available from various sources under normal and adverse circumstances.
 - (b) Licensees should be aware of the composition, characteristics, and diversification of its funding sources.

5.0 GUIDANCE ON STRESS TESTING

5.1 *Introduction to Stress Testing*

- 5.11 Stress testing is a form of analysis which seeks to define the impact of extreme but plausible scenarios. Its objective is to provide early warning signals so that risk management procedures can operate accordingly and informed management decisions can be made.
- 5.12 Stress testing should be used to define a stress profile for a licensee and further refine limits or thresholds that are internally accepted. Accordingly, the risk appetite of the licensee, which should be clearly and explicitly established by the board, is central and needs to be fully aligned with the stress tests' definition, the stress testing validation and the stress testing reporting processes. These processes should be designed and implemented to allow for iterative and on-going stress testing execution and revision, to respond to licensee and market evolution and for effective oversight by the board.
- 5.13 Many licensees operate with high levels of leverage in which relatively small declines in the price of the securities they hold can result in a significant decline in capital, possibly even below the regulatory minimum. If those holdings are financed by borrowed money, for example, through the repo market, licensees are vulnerable to a withdrawal of liquidity from investors. For Collective Investment Schemes (CIS), the greatest risk may arise whenever market liquidity dries up and the ability to sell assets in which the CIS is invested (shares, bonds etc.) is sharply reduced while simultaneously investors in the CIS seek to exercise their right to redeem units, as set out in the fund prospectus or offering circular. In extreme circumstances, the CIS may be unable to sell assets sufficient to meet redemptions, resulting in a suspension of the redemption process. Eventually the assets held by the CIS may have to be liquidated, potentially leaving investors with large losses.
- 5.14 The primary objective of these Stress Testing Guidelines is to provide high level principles for stress testing which is applicable to licensees. Most of the text was adapted from the Bank for International Settlements' Principles for sound stress testing practices and supervision, dated May 2009 (www.bis.org/publ/bcbs155.htm).
- 5.15 These principles should be used as a baseline for developing comprehensive stress testing programs and their integration into the risk governance framework of a licensee. They should become part of an informed decision making process.

5.2 Stress Testing Methodologies

- 5.21 Stress tests cover a range of methodologies. The complexity can vary widely, ranging from simple sensitivity tests, which assess the effect of a large move in one risk factor (for example, a decline in the government bond portfolio) or a set of closely related risk factors (for example, a decline in liquidity in the repo market and an increase in interest rates), leaving others unchanged, to multiple factor/scenario analysis which aims to assess the impact of a severe macro-economic historical or hypothetical stress event and capture dependencies among risk factors.

- 5.22 Stress tests may be performed at varying degrees of aggregation, from the level of an individual security up to the portfolio level. Stress tests may be performed for different risk types including market, credit, operational and liquidity risk.
- 5.23 Most risk management models in use today, including stress tests, use historical statistical relationships to assess risks. They assume that risk is driven by a known and constant statistical process. In other words, they assume that historical relationships constitute a good basis for forecasting the development of future risks. The financial crisis revealed however that:
- (i) historical statistical relationships, such as correlations, prove to be unreliable once actual events start to unfold; and
 - (ii) especially in stressed conditions, risk characteristics can change rapidly as reactions by market participants within the system can induce feedback effects and lead to system-wide interactions. These effects can dramatically amplify initial shocks.
- 5.24 Hypothetical stress tests aim to capture events that have not yet been experienced. The construction of these scenarios is usually labor intensive and requires judgment and specialist expertise. Usually macroeconomic scenarios are linked with hypothetical events and risk models, to derive correlation for different asset classes.
- 5.25 The best approach may be for licensees to use a methodology that evolves over time, through a series of changes in assumptions that encompass, for example, the definition of scenarios, risk factors and risk hierarchies. In addition, stress tests based on historical correlations should be complemented by dynamic hypothetical scenarios.
- 5.26 Licensees should use reverse stress testing techniques to compensate for weaknesses in stress testing methodologies. Reverse stress-tests are stress tests that require a firm to assess scenarios and circumstances that would render its business model unviable, thereby identifying potential business vulnerabilities. It consists of defining a target loss situation and identifying scenarios or circumstances that might lead to this situation. In that respect, reverse stress testing adds sensitivity information and complements a direct stress testing program by at least partially correcting the biases arising from the arbitrary calibration and limited usefulness of the results obtained by direct stress testing.
- 5.27 Back testing should be used to assess the quality of model predictions and to provide additional validation of the accuracy and effectiveness of the model.

5.3 Principles for Sound Stress Testing Practices

5.31 *Use of stress testing and integration in risk governance*

- (i) Stress testing should form an integral part of the overall governance and risk management culture of a licensee. Stress testing should be actionable, with results from stress testing analyses impacting decision making at the appropriate management level, including strategic investment decisions of the board and senior management. Board and senior management involvement in the stress testing program is essential for its effective operation.

- (ii) A licensee should operate a stress testing program that promotes risk identification and control, provides a complementary risk perspective to other risk management tools, improves capital and liquidity management, and enhances internal and external communication.
- (iii) Stress testing programs should take account of views from across the organization and should cover a range of perspectives and techniques.
- (iv) A licensee should have written policies and procedures governing the stress testing program. The operation of the program should be appropriately documented.
- (v) A licensee should have a suitably robust infrastructure in place, which is sufficiently flexible to accommodate different and possibly changing stress tests at an appropriate level of granularity.
- (vi) A licensee should regularly maintain and update its stress testing framework. The effectiveness of the stress testing program, as well as the robustness of major individual components, should be assessed regularly and independently.

5.32 Stress testing methodology and scenario selection

- (i) Stress tests should cover a range of risks and business areas, including at the firm-wide level. A licensee should be able to integrate effectively, in a meaningful fashion, across the range of its stress testing activities to deliver a complete picture of firm-wide risk.
- (ii) Stress testing programs should cover a range of scenarios, including forward-looking scenarios, and aim to take into account system-wide interactions and feedback effects. Scenarios should not be limited to historical events.
- (iii) Stress testing programs should generally consist of sensitivity (single and simple multi-factor) and scenario analysis addressing all material risks at various levels.
- (iv) Stress tests should feature a range of severities, including exceptional events capable of generating the most damage to a licensee, whether through the size of the loss or through loss of reputation. A stress testing program should also determine what scenarios could challenge the viability of a licensee (reverse stress tests) and therefore uncover hidden risks and interactions among risks.
- (v) As part of an overall stress testing program a licensee should aim to take account of simultaneous pressures in funding and asset markets and the impact of a reduction in market liquidity on exposure valuation.

5.33 Specific areas of focus

- (i) The effectiveness of risk mitigation techniques (including hedging strategies) should be systematically challenged.

- (ii) The stress testing program should explicitly cover complex and bespoke products such as securitized exposures. Stress tests for securitized assets should consider the underlying assets, their exposure to systematic market factors, contractual arrangements and related embedded triggers, and the impact of leverage, particularly as it relates to the subordination level in the issue structure.
- (iii) A licensee should enhance its stress testing methodologies to capture the effect of reputational risk. The licensee should integrate risks arising from off-balance sheet vehicles and other related entities in its stress testing programme.
- (iv) A licensee should enhance its stress testing approaches for highly leveraged counterparties in considering its vulnerability to specific asset categories or market movements and in assessing potential wrong-way risk related to risk mitigating techniques.

5.4 Reporting of stress testing results

- 5.41 Good practice requires that stress testing should be performed with a frequency that matches the licensee's risk profile and at least annually. Ideally it should also be undertaken following a significant market event which impacts on the licensee's profitability or viability such as a major sell-off in the equity or bond market or a sharp spike in CIS redemptions.
- 5.42 The reporting capability of a licensee should support the needs of on-going monitoring required by the risk management function of the licensee as well as periodic reporting due to the board, senior management and the Commission. Reporting should also occur when significant portfolio movements or market events are observed, complemented by an ad hoc approach each time warning levels are reached.
- 5.43 In accordance with regulation 21 (6) of the Regulations, every licensee, with the exception of insurance companies licensed by the Commission, shall file with the Commission the results of the stress tests conducted:
 - (i) within ninety days after the end of the licensee's financial year; and
 - (ii) within forty-five days after the end of the second quarter of the licensee's financial year.

6.0 EFFECTIVE DATE

- 6.1 The Guidelines are effective as of July 1, 2016.