FINANCIAL SERVICES COMMISSION
SECURITIES BULLETIN
(REVISED DECEMBER 2008)

EARLY WARNING TESTS

1.0 INTRODUCTION

1.1 One of the mandates of the Financial Services Commission ("FSC") is to maintain stability and public confidence in the industries regulated by the Commission. Early detection of problems in the industry will allow the FSC to ensure that remedial action is taken by company directors and business owners before deficiencies and weaknesses in a company's financial health are allowed to develop into deeper problems with adverse consequences for investor clients. Accordingly, the FSC now applies a number of tests in the form of financial ratios in the analysis of its licensee's financial filings and compares the results of this analysis to established benchmarks to look for early warning signs of potential problems.

2.0 BACKGROUND

2.1 In early 2004, the FSC commenced work on the development of a set of key ratios to be used for the purpose of identifying signs of financial weakness (or "red flags") in our licensees. A number of potential FSC benchmarks for the selected ratios to be used were identified and have been put in use. These ratios are used to determine whether further detailed assessments of the financial condition of a licensee should be undertaken.

2.2 In March 2005, the FSC issued the Early Warning Tests Bulletin (SR-ADVI-05/03-0001). Subsequently, there has been some feedback from the industry in relation to the ratios and in particular, the Capital to Total Assets and Off Balance Sheet Funds under Management ratio. The general opinion is that the benchmark assigned to this ratio may be inappropriate considering the various types of businesses conducted by securities dealers.

2.3 After carrying out further review, the FSC has taken the decision to suspend the use of the Capital to Total Assets and Off Balance Sheet Funds under Management ratio until further research is conducted to determine a more appropriate benchmark. The EWT Bulletin has been revised to reflect this change.

2.4 The FSC has also received considerable feedback from the industry in relation to another EWT ratio, namely, the intermediation ratio. This ratio is meant to provide an indication of the amount of

balance sheet intermediation undertaken by a dealer and is traditionally calculated by dividing into the dealer's total repurchase agreement liabilities, the sum of the dealer's total balance sheet assets and off balance sheet funds under management.

The FSC has given consideration to the fact that the value of total repurchase agreement liabilities represents the aggregate of liabilities owed to both financial institutions and non-financial institution clients. Repurchase arrangements among financial institutions are a standard mechanism for the allocation of resources in the wholesale market and are also integral to liquidity management for financial institutions. As such, the FSC concurs with the view that the intermediation ratio would provide a more meaningful assessment if it were to capture repurchase liabilities pertaining only to non-financial institution clients. Non-financial institution clients are considered to be clients that are either individuals or institutions that are not incorporated as financial entities.

The FSC has therefore taken the decision to modify the calculation of the intermediation ratio. Effective December 19, 2008, the intermediation ratio will be calculated by dividing into the dealer's repurchase agreement liabilities with non-financial clients only, the sum of the dealer's total balance sheet assets and off balance sheet funds under management.

3.0 METHODOLOGY

3.1 The framework within which individual ratios were selected entailed research into the types of ratios used by securities regulators in other jurisdictions. A pilot study using historical data submitted by licensees to the Commission was also performed.

3.2 The findings from the research showed that most securities regulators do not use early warning test ratios as regulation was more about market oversight from a conduct standpoint. Based on the current state of the securities industry in Jamaica, where dealers tend to have high levels of balance sheet intermediation, the FSC has used ratios that are more often used in the prudential assessment of banks.

4.0 EARLY WARNING TEST RATIOS, SIGNIFICANCE AND BENCHMARKS

4.1 There are several key areas that are necessary to be assessed when developing early warning tests for licensees. The categories that are identified as most important are as follows:

1. Capital Adequacy
2. Asset Quality
3. Intermediation
4. Earnings Quality
5. Profitability
6. Liquidity

7. Interest Sensitivity[1]

4.2 The FSC has selected the following ratios:

1. **Capital Adequacy ratios:**
   - Capital/Total Assets
   - Capital Base/Risk Weighted Assets ("RWA")

2. **Asset Quality**
   - Low Credit Risk Assets/Repo Liabilities

3. **Intermediation**
   - Repo Liabilities with Individuals and Non-financial Institutions/Total Assets + Off Balance Sheet FUM

4. **Earnings Quality**
   - Dealer's Core Earnings/Total income

5. **Profitability**
   - Return on Equity (using the DuPont Formula)

6. **Liquidity**
   - 1 Year Liquidity Gap Ratio

4.3 Appendix I provides details on how the ratios are calculated, the significance of each ratio and the appropriate benchmarks. The benchmarks were determined based on the results of the pilot study and research conducted.

5.0 LIMITATIONS

5.1 There are several limitations that the FSC faces in calculating these ratios. At present, not all of the data required for computing the ratios are submitted by all dealers. This is because a standard financial statement format is not used by each dealer when submitting financial statements to the FSC and the degree of disclosure or amount of detail provided is different for each licensee.

5.2 Additionally, financial statements are filed based on the licensee's financial quarter and year end which differ for most licensees. In order to address this, the Commission is preparing to introduce standardized reporting of financial statements and supplementary schedules in the near future. The set of standardized financial statements and supplementary information will be required to be filed with the Commission on calendar quarters. This will greatly improve the types of comparisons and assessments that can be done by the FSC.

6.0 IMPLEMENTATION

[1] No ratio has been determined as yet to measure interest rate sensitivity. However, we advise that dealers conduct duration analysis and submit a copy of the report to the FSC.

6.1 Dealers are asked to pay due regard to these ratios as they are currently being used by the FSC in its assessments of the financial condition of dealers. The FSC may change these benchmarks from time to time or may include additional ratios as the need arises.

6.2 Comments can be submitted to the FSC either by email to securities@fscjamaica.org or by letter directed to the Senior Director, Securities, Financial Services Commission.

Appendix I - EARLY WARNING RATIOS AND BENCHMARKS FOR SECURITIES DEALERS

EARLY WARNING RATIOS	EXPLANATION	SIGNIFICANCE	PROPOSED BENCHMARK/ STANDARD
1 Capital/Total Assets	The numerator of the ratio comprises of balance sheet capital (i.e., paid up capital, reserves, retained earnings and share premium and any other component of net worth) while the denominator represents the total assets reported on the dealer's balance sheet.	Measures capital adequacy in terms of assets reported on balance sheet. Entities with ratios less than 6% will be considered as having a weak capital base.	≥ 6%
2 Capital Base/Risk Weighted Assets ("RWA")	The Interim Capital Standards Guidelines ("the guidelines") detail the calculation of the RWA ratio. The numerator in the calculation consists of the aggregate of all of the licensee's tier 1 capital and tier 2 capital less prescribed deductions. The RWA are determined after applying the appropriate weights to the risk-based assets and risk exposures as stipulated in the guidelines.	Measures capital adequacy in terms of risk weighted assets. Entities with a ratio below 12% should notify the Commission in accordance with the Regulations. Entities with a ratio < 10% will have failed the statutory minimum capital requirement.	≥14%
3 Low Credit Risk Assets/Repo Liabilities	The low credit risk assets/repo liabilities ratio is currently calculated using total low credit risk assets as the numerator and dividing this amount by the dealer's Repo Liabilities. Low credit risk assets include securities issued by the Government of Jamaica ("GOJ"), BOJ, the governments of approved CARICOM and G-10 countries.	Assesses the quality of the dealer's assets. Dealers are expected to have low credit risk assets which will fully cover the amount of the dealer's total repo liabilities.	≥100%

	EARLY WARNING RATIOS	EXPLANATION	SIGNIFICANCE	PROPOSED BENCHMARK/ STANDARD
4	Repo Liabilities with Individuals and Non-financial Institutions /Total Assets + Off Balance Sheet FUM	This ratio is calculated by dividing the Total Repo Liabilities with Individuals and Non-financial Institutions by the sum of the dealer's total balance sheet assets and off balance sheet funds under management. Repo liabilities will include certificates of participation (COPs) where EITHER the contractual interest payment or principal repayment date or dates of the COP is or are not identical to the contractual interest payment and principal repayment date or dates, respectively, of the security being participated, OR any investor in the COP has been paid interest or repaid all or part of his principal investment on a date that is not a contractual interest payment or principal repayment date, respectively, of the security being participated.	This ratio provides an indication of the level of balance sheet intermediation that is undertaken by the dealer.	≤ 50%
5	Dealer's Core Earnings/Total income	The Dealer's core earnings are defined as income arising from the dealer's trading portfolio, investment portfolio and fee based activities. Interest spreads from repurchase agreements should be excluded from core earnings. Total income is the total income earned by the dealer for the quarter/ year.	Measures the dealer's earnings quality. The ratio identifies the percentage of the dealer's total income that is generated from securities dealing activities. A ratio that is less than 50% signifies that most of the dealer's earnings are not being generated from traditional core securities business.	> 50%
6	Return on Equity	The return on equity ratio is computed using the DuPont's formula. The three components of the ratio are Profit Margin (calculated as Net Profit after tax/Total Revenue), Total Asset Turnover (Total Revenue/Total Assets) and Leverage (Total Assets/Equity). Each component is then multiplied to calculate Return on Equity.	Return on equity measures the overall return on stockholder's equity.	No benchmark has been determined. The trends in this ratio will be observed.
7	1 Year Liquidity Gap Ratio	The 1 year liquidity gap ratio is calculated using the liquidity gap report. The numerator is calculated by subtracting the total assets maturing in 1 year from the total liabilities which will fall due in 1 year. The denominator is total liabilities which will fall due in 1 year.	Liquidity measures a dealer's ability to meet its obligations as they fall due. This ratio determines the percentage of a dealer's liabilities maturing within a year that are not covered by assets maturing within a year. A dealer with a liquidity gap ratio greater than 25% will be considered as taking on excessive liquidity risk.	≤25%