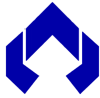

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Guideline

Subject: **Standards of Sound Business and Financial Practices -- Interest Rate Risk Management**

No: **F-9** **Date:** **February 1998**

A. PURPOSE

This guideline sets out the minimum polices and procedures that each company needs to have in place and to apply within its interest rate risk management program, and the minimum criteria it should use to manage and control prudently its exposure to interest rate risk. This guideline applies to all the business of a company (whether on-or off-balance sheet) which has a material exposure to interest rate risk.

Interest rate management must be conducted within the context of a comprehensive business plan. Although this guideline focuses on a company's responsibility to manage interest rate risk, it does not imply that interest rate risk can be managed in isolation from other asset/liability management considerations, such as liquidity requirements, credit risk and other risks.

B. DEFINITION

Interest rate risk is the potential for financial loss arising from changes in interest rates.

Interest rate risk arises when a company's principal and interest cash flows from assets do not coincide with the principal, interest and benefit cash flows arising from liabilities.

Asset and liability cash flows of a company are subject to uncertainty. This uncertainty arises for a number of reasons, including the presence of embedded options and the inherent variability in both the assets and the liabilities.

C. INTEREST RATE RISK MANAGEMENT PROGRAM

Managing interest rate risk is a fundamental component of the safe and sound management of each company. It involves prudent management of the company's assets and liabilities, in order to control the impact of changes in interest rates on the company's financial results.

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In managing its interest rate risk, a company needs to consider the nature of the different liability portfolios of the entity. In particular, where the interest rate risk has been directly or partially assumed by the company's customers, the investment objective may be total return (e.g., participating life insurance). These considerations need to be reflected in the company's interest rate risk management policy and procedures.

The specifics of the interest rate risk management program will differ between companies depending on the size, nature and complexity of their asset and liability position, their interest rate risk position, their risk tolerance and their risk profile. However, a comprehensive interest rate risk management program requires the following components:

- establishing and implementing sound and prudent interest rate risk policies;
- developing and implementing appropriate and timely interest rate risk measurement techniques; and
- developing and implementing effective interest rate risk management and control procedures.

Interest Rate Risk Policies

Sound and prudent interest rate risk management requires clear policies. These policies should include:

- the principles whereby the company's assets are to be subdivided into different asset portfolios for interest rate risk management purposes and their related investment objectives;
- an interest rate risk philosophy which articulates the extent to which the company is willing to assume interest rate risk; and
- explicit limits on the company's interest rate risk exposure directly related to the company's philosophy.

i) Asset Portfolios

The company may choose to subdivide its assets into a number of asset portfolios. Asset portfolios will be selected taking into account various factors such as:

- the economic environment affecting the company's liabilities (e.g., foreign operations may be subject to different economic factors);
- the nature of the company's products (e.g., participating products, annuities);

- the company's investment objectives; and
- internal synergies, such as the ability to offset cash flows from complementary product lines.

ii) Interest Rate Risk Philosophy

The risk tolerance each company will assume will vary with the extent of other risks faced by the company and its ability to absorb potential losses. Other risks include: anti-selective client behaviour, liquidity, credit risk, product design and expenses.

As with other aspects of financial management, the tradeoff between risk and return must be balanced. The objective of interest rate risk management is to manage the financial impact of interest rate changes within self-imposed limits.

iii) Interest Rate Risk Limits

Each company needs to establish explicit and prudent interest rate risk limits and to ensure that the level of interest rate risk exposure does not exceed these limits. These limits should reflect the interest rate risk philosophy of the company.

Interest rate risk limits need to be set within the company's overall risk profile. These limits may reflect the company's ability to offset interest rate positions internally (for example, combining liability cash flows from complementary products).

In addition, interest rate risk limits should be reassessed on a regular basis to reflect changes in the company's overall risk philosophy or risk profile.

Risk limits are usually defined in terms of the effect on net income, surplus (i.e., excess assets for branch operations), or on the present value of surplus at risk. Risk limits are normally expressed relative to the risk management techniques employed by the company.

Changes in interest rates may create a financial loss by:

- affecting the amount of income or expenses relating to assets, liabilities and off-balance sheet items;
- affecting the value of fixed-rate assets, liabilities and off-balance sheet items; or
- affecting the timing or creating uncertainty of asset or liability cash flows.

The use of hedging techniques is one means of managing and controlling interest rate risk. The company's interest rate risk policies should address the extent to which hedging and other techniques for managing and controlling the interest rate risk will be used.

Measurement of interest rate risk

Managing interest rate risk requires a clear understanding of the amount at risk and the impact that changes in interest rates have on this risk position. To make these determinations, sufficient information must be available to permit appropriate action to be taken within acceptable, possibly very short, time periods. The longer it takes a company to identify and to eliminate or to reverse an unwanted exposure, the greater the potential loss.

Each company needs to use risk measurement techniques that accurately measure the impact of potential interest rate changes on the company's financial position. In choosing appropriate interest rate scenarios to measure the effect of interest rate changes, the company should consider the potential volatility of interest rates and the time period within which the company can realistically respond to adverse interest rate movements.

There are many interest rate risk measurement techniques available to assist in the company's analysis. Each company should use at least one, and preferably a combination of these techniques in managing their interest rate risk exposure. Each technique provides a different perspective on the interest rate risk, has different strengths and weaknesses and is more effective when used in combination. Some measurement techniques are: Cash flow calendar, Duration, Convexity and Key rate duration. The measurement techniques selected should be appropriate to the interest rate risk philosophy and limits that are applied to the asset portfolio.

Interest rate risk management and control procedures

Each company needs to develop and implement effective and comprehensive procedures and information systems to manage and control interest rate risk exposure in accordance with its interest rate risk philosophy and policy. These control procedures should be appropriate to the size and complexity of the company's interest rate risk activities. This requires frequent and timely reporting of the company's interest rate risk position. In particular, breaches of interest rate risk limits should be reported promptly and action taken to correct the position.

Audits are a key element in managing and controlling a company's interest rate risk management program. Each company should use them to ensure compliance with, and the integrity of, the interest rate risk policies and procedures.

Audits should test all aspects of the company's interest rate risk management activities in order to:

- ensure interest rate risk management policies and procedures are being adhered to;
- ensure effective management controls over interest rate risk positions;
- verify the adequacy and accuracy of management information reports; and
- ensure personnel involved in interest rate risk management fully understand the company's interest rate risk policies and risk limits, and have the expertise required to make effective decisions consistent with the interest rate risk policies.

Assessments of the interest rate risk management operations should be presented to the company's board of directors on a timely basis for review.

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