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# RISK-BASED SUPERVISORY FRAMEWORK TEMPLATE FOR INSURANCE COMPANIES

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# **RISK-BASED SUPERVISORY FRAMEWORK TEMPLATE FOR INSURANCE COMPANIES**

TECHNICAL ASSISTANCE FOR POLICY REFORM II

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# RISK-BASED SUPERVISORY FRAMEWORK TEMPLATE FOR INSURANCE COMPANIES

## Risk-Based Supervisory Framework Template for Insurance Companies

During the month of June 2006, a Canadian consultant, Mr. Ron Bergeron, is interviewing EISA's senior executives and managers in order to learn about EISA's current supervisory processes and procedures. Under the ASIR work plan, Mr. Bergeron is to produce a strategic plan for moving EISA towards a proactive risk-based supervision approach from its current compliance-based supervisory framework.

In a June 8 meeting among US AID, EISA and Bearing Point representatives, it was agreed that it would be useful to develop templates for both the insurance companies and private funds supervised by EISA as part of this initiative to foster a risk-based supervision approach.

In appendix 1, we include a suggested template to be used for on-site inspections of insurance companies. In appendix 2, we provide a suggested template to be used for off-site review of insurance companies. Mr. Bergeron has reviewed the templates and has provided some very valuable material in relation to the CARAMELS factors<sup>1</sup>. The author gratefully acknowledges this contribution. Appendix 3 contains a CARAMELS Analytical Framework Summary. Appendix 4 summarizes the principal risks faced by insurance companies.

We welcome receiving input from EISA in order to finalize a first-class product consistent with its needs.

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<sup>1</sup> The CARAMELS supervisory framework is: Capital, Asset Quality, Reinsurance, Actuarial Reserves, Management, Earnings, Liquidity, Subsidiaries

**1.0 TEMPLATE FOR ON-SITE INSPECTIONS OF INSURANCE COMPANIES**

- 1.1) Insurance Company Inspected.**
- 1.2) Type of On-Site Inspection.<sup>2</sup>**
- 1.3) Date(s) of On-Site Inspection.**
- 1.4) Name(s) of Participating Inspector(s).**
- 1.5) Insurance Company Officer(s) Interviewed.**
- 1.6) Date of Last On-Site Inspection.**

**2.0 SECTION A: EXECUTIVE SUMMARY:**

- 2.1) Summary of Main Findings Identified by On-Site Inspection or Prior Off-Site Review.**

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<sup>2</sup> 1) Comprehensive; 2) Targeted/Limited; 3) Follow-Up; 4) Surprise

**2.2) Summary of Main Recommendations of On-Site Inspection.**

**3.0 SECTION B: BACKGROUND INFORMATION**

**3.1) Brief Description of Insurance Company.**

**3.2) Identification of Significant Activities.**

Significant activities could include any significant line of business, unit or internal process. Significant activities are identified from various sources including the institution's organization charts, strategic business plan, capital allocations, and internal and external financial reporting. Sound judgement is applied in determining the significance or materiality of any activity in which an institution engages.

The following are examples of criteria that may be used:

- a. Assets generated by the activity in relation to total assets (both on- and off-balance sheet);
- b. Risk-weighted assets generated by the activity in relation to total risk-weighted assets;
- c. Revenue generated by the activity in relation to total revenue;
- d. Net income before tax for the activity in relation to total net income before tax;
- e. Risk-weighted capital for the activity in relation to total risk-weighted capital;
- f. Internal allocation of capital to the activity in relation to total capital;
- g. Insurance underwriting exposure in relation to capital; and
- h. Reserves held as a percentage of total reserves.

**3.3) Main Findings Generated by Previous On-Site Inspection.**

**3.4) Action Taken by EISA/Insurance Company in Response to Previous On-Site Inspection.**

**4.0 SECTION C: SIGNIFICANT DETAILS OF WORK UNDERTAKEN BY EISA'S INSURANCE COMPANY ON-SITE SUPERVISORY DEPARTMENT**

**4.1 Main Areas of Insurance Company Activity Inspected.**

**4.2 Specific Methodology and Information on Principal Areas Inspected. (For example, which sections of the inspection manual were used to guide the conduct of the on-site inspection; if the manual was not used as a guide, please explain the approach taken and why.)**

**5.0 SECTION D: RECOMMENDED ACTION FOR INSURANCE COMPANY & FOLLOW-UP REQUIRED BY EISA'S INSURANCE COMPANY OFF-SITE SUPERVISORY DEPARTMENT**

**5.1 Actions Needed by Insurance Company to Resolve Significant Outstanding Issues Identified in Current On-Site Inspection.**

**5.2 Timing and Nature of Follow-Up/Action Needed by EISA's Insurance Company Off-Site Review Department.**

**5.3 Planned Date of Next Inspection.**

**5.4 Planned Objectives of Next Inspection.**

**6.0 TEMPLATE FOR OFF-SITE REVIEW OF INSURANCE COMPANIES**

**6.1) Insurance Company Reviewed.**

**6.2) Name of EISA's Reviewing Officer(s).**

**6.3) Date of Previous Off-Site Review.**

**7.0 SECTION A: EXECUTIVE SUMMARY:**

**7.1 Summary of Main Findings Identified by Current Off-Site Review or Prior On-Site Inspection.**

**7.2 Summary of Main Recommendations from Current Off-Site Review.**

**8.0 SECTION B: BACKGROUND INFORMATION**

**8.1 Brief Description of Insurance Company (cut and paste from Section 2.1)**



## **8.2 Principal Findings Generated by Previous Off-Site Review**

## **8.3 Actions Taken by EISA/Insurance Company in Response to Previous Off-Site Review**

# **9.0 SECTION C: SIGNIFICANT DETAILS OF WORK UNDERTAKEN BY EISA'S INSURANCE COMPANY OFF-SITE SUPERVISORY DEPARTMENT**

## **9.1 Brief Narrative on the Results of the Off-Site Review of the Insurance Company (using CAMELS framework)**

### *Capital Assessment*

#### **Role of Capital**

Capital is a source of financial support to protect an institution against unexpected losses, and is, therefore, a key contributor to its safety and soundness. Capital management is the ongoing process of raising and maintaining capital at levels sufficient to support planned operations. For complex institutions, it also involves allocation of capital to recognize the level of risk in its various activities. The assessment is made in the context of the nature, scope, complexity, and risk profile of an institution.

#### **Capital Adequacy**

Analysts should document their assessment of the adequacy of the level of capital having regard for the minimum capital requirement, and the level of capital required in the context of the institution's risk profile. Analysts should also explain any material changes/trends in the level of capital from prior years.

Analysts should document their assessment of the quality of the institution's capital. The quality of capital is categorized by its permanence and freedom from mandatory fixed charges against earnings. The adequacy of the quality of capital is assessed in the context of the risk profile of the institution, and should consider the minimum requirements, if any. Analysts should also explain any material changes/trends in the quality of capital from prior years.

In addition, analysts should document their assessment of the institution's ability to access capital. This could be from the market and parent. An institution's ability to raise capital in the markets is affected by its own performance and share value, interest rates, rating agency assessments, and any number of factors arising from the general economic climate, including investor attitudes. In the case of a subsidiary, the ability of the parent to provide quality capital support is key in the assessment.

### *Asset Quality Assessment*

#### **Balance Sheet Strength**

In determining a company's ability to meet its current and ongoing obligations to policyholders, the most important area to evaluate is its balance sheet strength. Balance sheet strength measures the exposure of a company's surplus to its operating and financial practices. A highly leveraged or poorly capitalized company can show a high return on surplus, but may be exposed to a high risk of instability. A conservative level of leverage or capitalization enables an insurer to better withstand catastrophes, unexpected losses and adverse changes in underwriting results, fluctuating investment returns or investment losses, and changes in regulatory or economic conditions.

#### **Quality and Diversification of Assets**

The quality and diversification of assets contributes to a company's financial stability. Invested assets (principally bonds, common stocks, mortgages and real estate) should be evaluated to assess the risk of default and the potential impact on surplus if the sale of these assets occurred unexpectedly. The better the liquidity, diversification and/or quality of the assets, the less uncertainty there is in the value to be realized upon their sale and the lesser the likelihood of default. Therefore, a review of a company's invested assets should be performed to identify a lack of diversification among industries or geographic regions, with particular attention paid to large single investments (e.g. investments that exceed, say 5% of a company's total capital). Companies that hold illiquid, undiversified and/or speculative assets and have a significant underwriting exposure to volatile lines of business that are vulnerable to unfavourable changes in underwriting and/or economic conditions is a combination that can jeopardize policyholders' surplus.

### *Management Assessment*

The experience and depth of board members and senior management are important determinants for achieving success. Because the insurance business is based on an

underlying foundation of trust and fiscal responsibility, prudent management plays a more vital role than in most other industries.

Competitive pressures within virtually every insurance market segment have amplified the importance of management's ability to develop and execute defensible strategic plans. The operating objectives of a company's management team play an important role in its qualitative evaluation of the current and future operating performance of a company. This is particularly true when a company is undergoing a restructuring to address operational issues, balance sheet problems or is actively raising capital.

Senior management is responsible for directing and overseeing the effective management of the institution's operations. Its key responsibilities include:

- Developing business objectives, strategies, plans, organizational structure and controls, and policies, for Board approval;
- Developing and promoting sound corporate governance practices, culture and ethics (in conjunction with the Board);
- Executing and monitoring the achievement of board-approved business objectives, strategies, and plans and the effectiveness of organizational structure and controls; and
- Ensuring that the Board is kept well informed.

### ***Earnings Assessment***

Earnings contribute to the long-term viability of an institution by supporting its ability to maintain sufficient capital in relation to its risk profile. Earnings absorb normal and expected losses in a given period and provide a source of financial support by contributing to the institution's internal generation of capital and its ability to access capital externally.

An analysis of current performance and historical trends provides the base information needed for assessing an institution's earnings. The analysis should consider: the level of contribution to capital historically, and future expectations; the institution's past performance in recognizing normal and expected losses in provisioning, pricing and expensing practices; volatility; changes in accounting and/or actuarial practices; and use of income smoothing techniques. The period of review should be appropriate to the context of the institution, and where suitable, cover a full economic or business cycle.

Analysts should document the analysis and assessment of earnings composition by major source and type. Different sources and types of earnings will differ in quality and susceptibility to external factors, which will affect the degree to which they are stable and sustainable from one period to another. Normally, volatile sources are higher risk and lower quality. Non-recurring sources of earnings are not sustainable and should be identified in the analysis.

### ***Reinsurance Assessment***

Reinsurance plays an essential role in the risk spreading process and provides insurers with varying degrees of financial stability. A company's reinsurance program should be appropriate relative to its policy limits and underwriting risks, catastrophe exposures, business, financial capacity and credit quality of the reinsurers involved. In addition, a reinsurance program should involve time-risk transfer and include reinsurers of good credit quality, since in the event of a reinsurer's failure to respond to its share of a loss, the reinsured or counterparty would have to absorb a potentially large loss in its entirety.

To be considered adequate for catastrophe protection, for example, a program needs to protect a property and casualty company from impairment or insolvency, from large shock-losses such as a 100 year wind storm, a 250 year earthquake, or its annual aggregate loss exposure. In addition, reinsurance should also provide protection from a series of smaller storm losses that do not trigger recovery from a traditional catastrophe reinsurance program. Further, in order to spread risk, reinsurance can be utilized to leverage a company's surplus to enable it to write more business than would otherwise be possible.

For life and health companies, a reliable reinsurance program must consider sound risk management practices to provide the company with protection against adverse fluctuations in experience. Since these risk transfer agreements on an underlying policy or policies indemnify the company for insurance risks, prudent evaluation of the economic impact on a company's life, health, and annuity operations is critical.

Incorporating reinsurance to manage a company's financial risk that includes mortality, morbidity, lapse or surrender, expense, and investment performance presents a competitive risk to a counterparty's future growth prospects and long-term viability. Therefore, the range of reinsurance business must be evaluated with the company's ability to manage its growth relative to demands for life and health insurance coverage under existing economic and regulatory environments.

An insurer's ability to meet its financial obligations can become overly dependent upon the performance of its reinsurers. A company can also become exposed to the state of reinsurance markets in general. A significant dependency on reinsurance can become problematic if a major reinsurer of the company becomes insolvent or disputes coverage for claims. It also can become a problem if general reinsurance rates, capacity, terms and conditions change dramatically following an industry event. The more a company is dependent upon reinsurance, the more vulnerable its underwriting capacity becomes to adverse changes in the reinsurance market. The greater this dependency, the greater the company's reinsurance program should be scrutinized to determine its appropriateness and credit quality and whether it is temporary or permanent in nature.

### ***Actuarial Reserves Assessment***

An evaluation of the adequacy of an insurer's reported reserves is essential to an evaluation of its profitability, leverage (capitalization) and liquidity. Net income and policyholders' surplus are directly affected by changes in reported reserves.

For life and health companies, the valuation methodology should be reviewed, including interest assumptions and degree of conservatism in the establishment of life, health and annuity reserves. The degree of uncertainty in policy reserves, recognizing that they are only actuarial estimates of future events should also be assessed. If the degree of uncertainty

exceeds any equity in the reserves, and is large in relation to net income and policyholders' surplus, this will have an impact on the company's reported profitability, liquidity, and leverage (capitalization).

### ***Liquidity Assessment***

Analysts should consider:

- What is the established target asset portfolio mix? Is it met?
- Does it take into account risk attributes of the liabilities supported by the assets, expectations of market performance, and institution's investment philosophy?
- Where is the institution's surplus primarily invested and in what type of investments (e.g., equities, bonds, real estate and international securities)?
- What is the institution's determination of the impact of changes in the fair value of assets backing policy liabilities and/or surplus?
- What are the dynamic capital adequacy testing results regarding projected cash flows and balance sheet?

### ***Subsidiary Assessment***

The considerations herein encompass a consideration of all of the factors relating to the parent insurance company. Ultimately, the parent insurance company must be sure that problems with its subsidiary company are manageable and will not threaten its own financial solvency.

## **9.2 Summary of Insurance Company's Solvency Problems Noted (if applicable).**

## **9.3 Summary of Insurance Company's Liquidity Problems Noted (if applicable).**

## **9.4 Summary of Complaints Received About Insurance Company and Actions It Has Taken to Address Them (if applicable).**

**9.5 Planned Date of Next Off-Site Review of Insurance Company.**

**10.0 SECTION D: RECOMMENDED ACTION FOR INSURANCE  
COMPANY & FOLLOW-UP REQUIRED BY EISA'S INSURANCE  
COMPANY SUPERVISORY OFF-SITE DEPARTMENT**

**10.1 Actions Needed by Insurance Company to Resolve Issues Identified in Current Inspection.**

**10.2 Timing and Nature of Follow-Up/Action Needed by EISA's Insurance Company Off-Site Review Department.**

**CAMELS ANALYTICAL FRAMEWORK FOR INSURANCE  
COMPANIES**

An insurance company faces a number of risks in conducting its business. Many insurance supervisors use a **CAMELS** framework to assist their off-site analysts and on-site examiners in assessing and evaluating the risks run by insurance companies. The **CAMELS** framework consists of the following elements.

- **Capital** – Is the amount of the insurance company's capital sufficient given the type of risks faced by the insurance company?
- **Asset Quality** – What are the potential risks in the investment/loan portfolio? Are the loss provisions for bad investments and loans adequate?
- **Reinsurance** – What are the levels and types of reinsurance employed by the insurance company? How do they affect the risk profile of the insurance company?
- **Actuarial Reserves** – Are reserves calculated properly, based on relevant legal requirements and reasonable assumptions? Is the methodology appropriate?
- **Management** – Does the insurance company have capable, fit and proper professional managers? Do they exercise appropriate oversight? Have they ensured that quality internal controls are in place, which are appropriately monitored? Do managers have strong risk identification, risk measurement, risk assessment and risk management procedures and processes in place?
- **Earnings** – Is the insurance company earning sufficient profits to maintain capital at healthy levels, pay shareholder dividends, meet expectations for improvements in operations, as well as pay ongoing liability commitments.
- **Liquidity** – Does the company have sufficient liquidity given the nature of its business? Are the assets and liabilities well matched in terms of maturity dates? Are the treasury operations well managed?
- **Subsidiaries** – Does the insurance company own subsidiaries? Do these investments present a risk to the financial health of the insurance company?

## **RISKS FACED BY INSURANCE COMPANIES**

- **Underwriting Risk**

Underwriting is the key insurance activity. Insurance companies must assess and then accept the risk attached to any insurance transaction. If they misjudge the risk, the policy may be underpriced and lead to considerable losses.

- **Product Design And Pricing Risk**

Closely related to the notion of Underwriting Risk is the concept of Product Design and Pricing Risk. An insurance company may correctly assess the risk attached to someone or something. But, a policy could still be underpriced, considering the nature of the risk. This could happen through design, when an insurance company is keen to attract business, for example. Or, it could happen through a failure to fully consider the pricing of a policy.

- **Actuarial Risk**

For both life and non-life insurance, one of the biggest dangers is that a company's reserves are insufficient to cover the true cost of all its liabilities. Hence, this is why actuaries are the foundation for ensuring that reserves – by far the largest liability item – are accurately estimated.

- **Operational Risk**

Operational risk covers a whole multitude of potential problems that have something to do with operational processes and procedures. Risk can arise from system deficiencies, technology failures, as well as from natural disasters.

- **Management Risk**

This risk embraces all of these factors; human error, fraud, dishonesty, incompetence, negligence, poor execution of procedures and policies. It can be the hardest risk to evaluate and the toughest for an insurance company to protect itself against.

- **Liquidity Risk**

Liquidity risk is the possibility that an insurance company is unable to meet current financial obligations as they come due. The company may be solvent in the short, medium and long-term. However, it may simply have insufficient cash or not enough investments capable of being turned into cash in a timely way to pay policyholder claims or other creditors when they are due to be paid.



- **Insolvency Risk**

Of all risks, this is the one feared most by insurance companies and their regulators. It is the risk that liabilities exceed assets. Sometimes, the insolvency of an insurance company can be masked by overstated assets and/or understated liabilities. Thus, the challenge for EISA's employees is to ensure that both sides of the balance sheet are accurately valued.

- **Reinsurance Risk**

This risk indirectly includes Credit Risk since when we place insurance coverage with a reinsurance company, we are accepting a risk on that reinsurance company, itself. Otherwise, an insurance company may choose reinsurance protection that does not adequately cushion it against adverse claims experience, thus exposing it to unnecessary loss.

- **Legal Risk**

Legal risk could happen if an insurance company fails to comply with its various legal and contractual requirements. In some cases, the company may consider that it has acted in compliance with the law. However, an independent court may rule otherwise and subject the company to unanticipated financial consequences. Another example of legal risk happens when an employee may enter into a transaction on behalf of an insurance company where that person is not properly authorised to do so.

- **Regulatory Risk**

One of the fundamental obligations of an insurance company and its employees is to comply with laws, rules, regulations, decrees, prescribed practices and ethical standards. An insurance company may knowingly or unknowingly breach any of these documents, thereby subjecting itself to supervisory sanctions.

- **Interest Rate Risk**

Insurance companies, like other financial institutions face a number of risks emanating from changes in interest rates. First, the price of existing fixed rate instruments will fall in the event of an interest rate rise. Equity investment values may also fall when interest rates rise. Real estate prices can also be relatively affected when interest rates move up.

- **Foreign Exchange Risk**

Again, this risk can take different forms. If assets are priced in one currency and liabilities in another, movements in foreign exchange rates, will affect the liquidity profile of the insurance company. Similarly, if revenues or claims are in different currencies, this can materially affect the profit picture of an insurance company.

Finally, if an insurance company needs to purchase foreign exchange, it can find a future exchange rate to be unfavourable later compared to what it might currently be.

- **Credit Risk**

This risk is more prominent for banks. It arises from a counterparty's inability or unwillingness to fully meet its contractual obligations. For insurance companies, credit risk is an issue with its investments/loans, including investments in subsidiaries. Borrowers/lenders may be incapable or disinclined to pay their financial obligations. Credit risk also relates to whether a policyholder can meet his/her obligations to pay premiums in a timely way.

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