Risk-Based Supervisory Framework

For the Egyptian Insurance Supervisory Authority

A Guide to Identify and Assess Inherent Risks in Insurance Companies

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A Guide to Identify and Assess Inherent Risks in Insurance Companies

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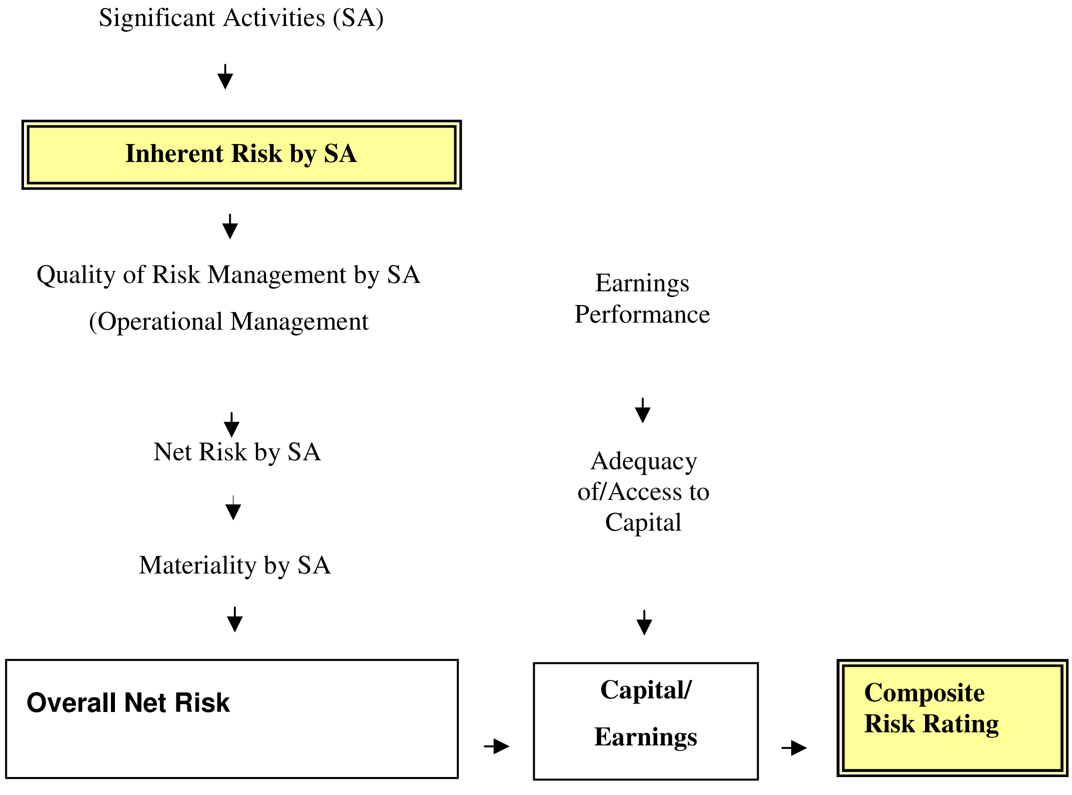
Overview

The purpose of this guide is to provide information to assist supervisors in identifying and assessing Inherent Risks in an institution's Significant Activities. It sets out the key concepts for assessing Inherent Risks, examples to illustrate the application of the concepts, and an approach to the assessment of Inherent Risk.

1.0 Introduction

1.1 Understanding the nature of risks being taken on by an institution is a fundamental step in assessing its risk profile; i.e.; its Composite Risk rating. Where the identification and assessment of Inherent Risks fits into the supervisory process is depicted in the following diagram:



Identification of Significant Activities is discussed in the Supervisory Guide, Knowledge of Business and Identification of Significant Activities.

2.0 Objectives

2.1 The objectives of identifying and assessing Inherent Risks in an institution's Significant Activities include:

i. understanding the nature and extent of risks being taken on by the institution;
ii. enabling a supervisor to develop expectations as to the nature, extent and rigor of policies, processes and controls that need to be in place to properly manage and mitigate those risks, for both day-to-day control which is the responsibility of Operational Management and oversight control which is the responsibility of the Risk Management Control Functions (Oversight Functions) that may exist in an institution;
iii. enabling a supervisor to identify areas for focus during on-site reviews and monitoring;
iv. providing support and rationale for assessments made throughout the supervisory process, including those disclosed to the institution; and
v. comparing the relative riskiness of the activities within the institution and carrying out peer comparisons (relative riskiness of similar activities across institutions).

3.0 Key Inherent Risk Concepts

3.1 As defined in the Supervisory Framework, Inherent Risk is risk that is intrinsic to a business activity.

i. Inherent Risk is exposure to loss from possible future events, or changes in business or economic conditions.
ii. It is evaluated by making well-considered assumptions about the probability of such events or changes in conditions happening, and an estimate of the potential severity of their effect on an institution's capital and earnings.
iii. Because of the difficulty of achieving any degree of exactness in assessing probability and effect, the assessment of Inherent Risk is primarily qualitative.
iv. The assessment is an informed judgment based on the supervisor's knowledge of the institution, its industry and environment.
v. Inherent Risk is assessed without factoring in the institution's risk management processes and controls for the activity.
vi. It is assessed without regard to the "size" of the Significant Activity relative to the size of the institution or its capital.
vii. Inherent Risk would be assessed the same for identical activities (having completely identical characteristics) undertaken by different institutions, as the assessment is made without considering the mitigation by an institution.
viii. The level of Inherent Risk in two like activities may also be assessed as being different; for example, the level of Inherent Risk in commercial lending activity carried out by two institutions might be different because of different product features, markets served, etc.

ix. The assessment of Inherent Risk is dynamic, forward-looking and continuous.

3.2 Inherent Risk exists in all business activities. Under the Supervisory Framework, however, Inherent Risk is assessed only for Significant Activities. The Significant Activities assessed would be expected to represent a high percentage of the total business activities of the institution in order to provide an appropriate basis for the assessment of its risk profile.

4.0 Classification of Inherent Risks

4.1 Seven risk categories have been identified in the Supervisory Framework for grouping and assessing Inherent Risk. These are: credit; market; insurance; operational; liquidity; legal and regulatory; and strategic.

4.2 Although there are many ways to classify Inherent Risks, the above categories provide a relatively simple and manageable classification system for application to all types of institutions. A number of sub-categories may be considered under each of the seven categories to provide a more comprehensive understanding of risks (e.g., settlement risk may be considered a sub-category of credit risk). Where sub-categories are considered, the supervisor should identify and discuss them under the relevant main category.

Identification of Inherent Risks

4.3 A thorough understanding of an institution's Significant Activities and the environment and the industry in which it operates, is essential to identifying and assessing Inherent Risks. For further guidance on gathering relevant information on an institution's environment and industry, and on identifying Significant Activities, supervisors should refer to the supervisory guide, Knowledge of Business and Identification of Significant Activities.

4.4 A Significant Activity must be understood in sufficient depth to identify the categories of Inherent Risk that apply and the factors that increase or decrease the level of risk in the activity. Discussions with management and a review of information from the institution are critical to understanding the exact nature and characteristics of the activity being assessed.

4.5 The following are examples of the factors that would need to be considered:

i. the characteristics of the product or service being offered; e.g., if the activity is commercial lending or life insurance, the type and features of the products being offered;

ii. the nature of the market or customer segments the institution is serving; e.g., retail, commercial, individual, group, type of industries, etc.;
iii. how the activity is transacted or delivered (distribution channels); e.g., branches, electronic channels, third parties (external agents), etc.;
iv. the level of operational complexity and automation involved in the delivery of the product/service; e.g., to accommodate exotic features, multiple processing steps, reliance on manual processes, use of complex or unique systems applications, etc.;
v. the markets and jurisdictions in which the business is transacted; e.g., urban, rural, provincial, national, international, etc.;
vi. the economic, political and competitive environment that might affect the product or service or any of its characteristics; e.g., a poor economic or highly competitive environment may impact certain products or markets;
vii. industry experience on like activities;
viii. applicable regulations and regulatory regimes; e.g., certain activities/products are subject to more stringent requirements or requirements of multiple regulatory bodies, etc.; and
ix. the extent of concentration; e.g., by product, geography, customer segment, etc.

4.6 Analyzing the nature and characteristics of a Significant Activity assists in the identification of applicable risk categories and assessing the activity's sensitivity to factors that increase or decrease the level of the Inherent Risks.

For example, supervisor John Jones has identified Commercial Lending as a Significant Activity of the institution under review. From his knowledge of the activity, he has determined that the institution's commercial lending is focused on two industry sectors, the technology equipment sector, and high-end fashion designers. Operating and term loans are offered to clients through a number of small branches located in the Timbertown area.

From the information gathered in updating the Knowledge of Business, John is aware that the economy is in the midst of a recession and there is little or no improvement expected in the near term. The main customer segments of the institution's commercial lending business have been particularly hard hit. He is also aware from knowledge of the competitive environment, that there has been fierce competition among rival lenders over the last several years for these "lucrative" client segments. The economic decline has been sudden.

With his understanding of the characteristics of the institution's commercial lending activity, and the current status of the industry and economic environments, John has determined that:

- credit risk (risk of default) is a primary Inherent Risk facing the institution;
- the commercial lending activity is concentrated in two industries;
- these industries, while performing well in the past, have been negatively affected by the current economic conditions and the near-term outlook is poor;
- the level of non-performing loans has been rising;
- the activity has little exposure to market risk since all loans are denominated in Canadian dollars, with interest rates floating relative to the prime rate;
- the nature of loan products is standardized and complexity is low, hence operational risk is considered low; and
- liquidity may be an issue and investigation is needed.

John will weigh all these factors in arriving at an assessment of the level of Inherent Risk in the activity.

4.7 The nature and characteristics of a Significant Activity will generally facilitate the identification of the primary or dominant Inherent Risk associated with it. For example, credit risk would likely be the primary risk of a lending activity; and insurance risk would likely be the primary risk in an automobile insurance activity. However, more than one category of Inherent Risk is usually associated with an activity, and an activity could well have more than one primary (or dominant) Inherent Risk. In practice, it is useful to begin an assessment by focusing on one category of Inherent Risk at a time, generally with (one of) the primary Inherent Risk(s) associated with the Significant Activity.

5.0 Assessment of Inherent Risk

Elaboration of Key Concepts

5.1 The assessment of Inherent Risk is made before, and without considering the institution's risk management processes and controls, and without regard to the "size" of the Significant Activity relative to the size of the institution or its capital. Considering size would bias the assessment and would not generate the true Inherent Risk of the activity; i.e., the risk intrinsic to an activity. (Note, however, that materiality would have been a factor in selecting the activity as significant).

For example, in his assessment of the level of inherent credit risk in the institution's commercial lending activity, John is concerned only about understanding the characteristics of the activity that the institution has engaged in (examples are provided in 5.3), identifying the factors that drive the level of Inherent Risk higher or lower, and, assessing the effect of the current industry and environmental conditions on the level of risk in the activity. He would not consider the size of the activity relative to the size of the institution, although, because the activity was identified as "significant", it is already considered material to the institution. Whether or not the commercial lending activity represents $15 million or $40 million of the institution's total assets of $100 million would not enter into the assessment of Inherent Risk.

5.2 Because the Inherent Risk assessment is made before factoring in the effectiveness of the institution's risk management processes and controls, the Inherent Risk in a particular activity would be the same regardless of the institution being assessed. In other words, if a particular activity was transferred intact to another institution, the assessment of the level of Inherent Risk would not change.

5.3 The assessment of Inherent Risk is qualitative, although quantitative factors are taken into account (such as concentration by customer or geography within an activity, or the loss experience for the industry for a particular activity). The assessment is based on informed judgment about the current environment and the impact of possible future events and conditions. Accordingly, the assessment is characterized in a broad way as High, Above Average, Moderate or Low risk.

5.4 Informed judgments require a systematic approach, based on a thorough understanding of the institution, and the products or services being offered. As well, information about the industry and the environment that is relevant to the Significant Activity should be brought into the assessment by considering whether this information changes the supervisor's view of the riskiness of the activity. Consideration needs to be given to the interrelationship of different Inherent Risks and the compounding or offsetting effect they may have in arriving at the level of Inherent Risk.

> For example, a supervisor is aware that the current economic climate is poor and that certain industries have suffered as a result. He or she has industry information that identifies negatively affected industries and specific default ratios. At the same time, he/she is aware that certain companies are expected to perform better in current conditions. The supervisor brings this information into his or her assessment of the inherent credit risk of the lending activity.

5.5 The assessment of Inherent Risk is intended to be forward-looking and continuous. It should consider the potential effect of changes within the activity; or changes within the industry; or changes within the environment (political events, economic events, regulatory changes). The market place is dynamic and so too should be the assessment. Accordingly, it is important to continuously bring new information into the process, through ongoing monitoring of developments within the institution, industry and environment, and to reassess Inherent Risk on the basis of this new information. Information is obtained through the supervisory monitoring processes, as well as from relevant industry and environmental sources (publications, reports, news media).

5.6 Attached documents (e.g. Inherent Risk – Credit) provide, by risk category, examples of factors that increase or decrease the level of Inherent Risk. They also include examples of mitigation processes or techniques that may be used by an institution in managing the risk. As noted earlier, mitigation is not considered in the assessment of Inherent Risk; however, examples of mitigation are set out in these documents to differentiate between the factors that increase or decrease the level of risk and actions taken by an institution to mitigate risk, which can sometimes be unclear. At this time, guidance has been developed for credit and insurance (life and P&C) risk.

5.7 Since the level of Inherent Risk is determined by the nature and characteristics of an activity, similar activities undertaken by different institutions may have different levels of Inherent Risk because of different markets, product features, concentrations, etc. Thus, it is important that supervisors understand the Significant Activities of an institution in sufficient depth to properly assess the level of risk. In assessing Inherent Risk it is useful to compare the characteristics of an institution's activities with those of similar activities of other institutions, and to understand the effect the differences have on the Inherent Risk assessment.

5.8 Because it is important that Inherent Risk assessments across Significant Activities within an institution are appropriate relative to each other (that is, Moderate means the same thing for all activities rated Moderate), and are comparable across different institutions engaging in similar business activities, a common scale is used as a reference point in the assessment. The scale represents the industry's risk spectrum, which extends from Low to High.

Low Moderate Above Average
High

Industry Risk Spectrum

5.9 Differences in factors such as extent of concentration, nature of the market, counterparties, and variety and complexity of products, will assist the supervisor in determining whether the activity of a specific institution falls in the low risk or high risk end of the spectrum. As well, industry sources can provide historical default rates, revenue volatility (e.g., resulting from varying demands in marketplace) and other loss experience that also help in the assessment. Consideration must also be given to the cyclical nature and the degree of correlation of various factors.

Approach

5.10 An approach to the assessment follows. It is premised on the use of current industry knowledge and experience available to the regulator to group activities by levels of risk for specific risk categories. This approach is not without its drawbacks, but is useful in illustrating the concepts. A cautionary note is included in section 6.17.

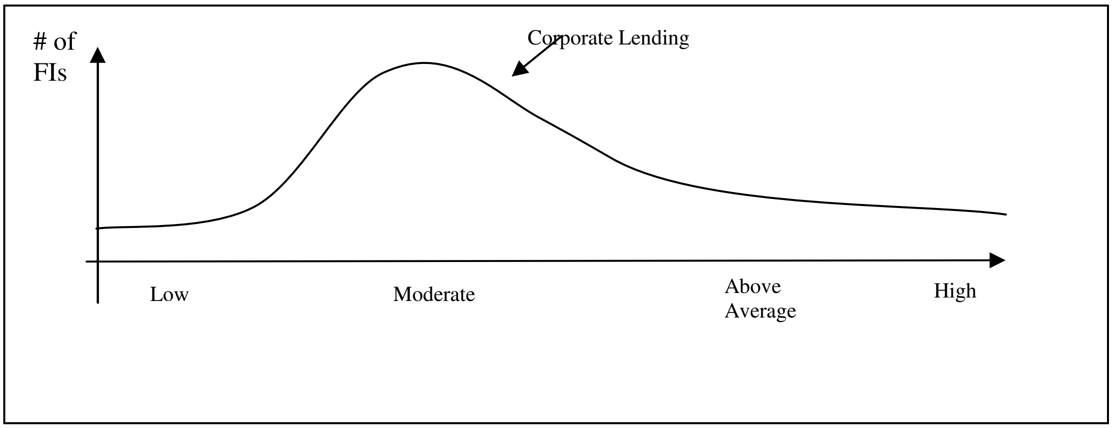
5.11 The example to illustrate this approach focuses on Corporate Lending, and its most likely primary Inherent Risk, credit risk. (As indicated earlier in 5.6, it is useful to begin an assessment of Inherent Risk in a Significant Activity by focusing on the primary Inherent Risk.)

i. A supervisor could begin an analysis using, as a "starting point", the level of inherent credit risk that would be assigned to most Corporate Lending Activity undertaken in the industry (an "on average" position).

ii. The supervisor would then consider the nature and characteristics of the specific Corporate Lending activity being assessed to identify those characteristics and related Inherent Risk factors that could drive the level of risk higher or lower than the "on average" position.

iii. After considering the "on average" level of risk for that activity, and the effect of the relevant industry and environmental conditions, the supervisor would then assess whether the inherent credit risk in the Corporate Lending activity being reviewed is Low, Moderate, Above Average or High.

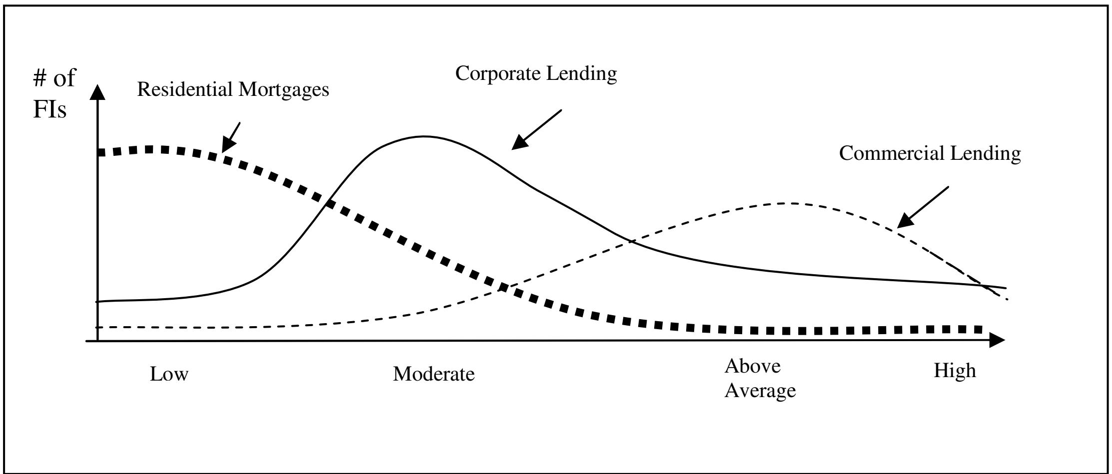
5.12 The regulator's current industry knowledge and experience indicates that the "on average" level of inherent credit risk for Corporate Lending is currently considered to be Moderate. This means that if all Corporate Lending activities undertaken in the industry were plotted along the industry risk spectrum, most would be considered to have Moderate inherent credit risk. This is depicted in the following diagram and could be used as a "starting point" for the assessment.



The diagram is for illustrative purposes only - no accuracy is intended with the shape of the curve or its location relative to the axes.

5.13 You will note from the diagram that most of the activity in the industry, (vertical axis is the number of institutions undertaking corporate lending activity), currently falls within the Moderate band of the spectrum. You will also note that the curve for Corporate Lending extends the entire length of the industry risk spectrum. This latter observation demonstrates that while most institution's Corporate Lending activity can currently be considered as having Moderate credit risk, the specific Corporate Lending activity of an institution could fall anywhere along the risk spectrum, from Low to High, depending on the nature and characteristics of the activity, and the effect of the relevant Inherent Risk factors in the context of the industry and environment.

5.14 The "on average" level of inherent credit risk will differ for different types of lending activities as demonstrated in the following diagram. Note that the horizontal axis, the industry risk spectrum, is the same for all activities. The relative positioning of the highpoint of the curves indicates that, "on average", the level of credit risk for residential mortgages, corporate lending and commercial lending is considered to be Low, Moderate, and Above Average, respectively. Note also that the curve for each activity extends through the entire risk spectrum. This indicates that the assessment of the level of risk for a particular activity of an institution could be anywhere along the risk spectrum, depending on the nature and characteristics of that activity and the sensitivity of the activity to the current or projected industry and environmental circumstances.



The diagram is for illustrative purposes only - no accuracy is intended with the shape of the curve or its location relative to the axes.

5.15 Section III of the attached documents provide, for each risk category, a "starting point", or "on average" level of risk, for key activities. Section III of Appendix A on Credit Risk is the source of the "on average" level of credit risk for Corporate Lending, Commercial Lending and Residential Mortgages. Further information on these documents is provided in section 8.0 below.

5.16 The following example illustrates the approach described above, beginning with the "on average" level of credit risk in an activity as a starting point, and then bringing into the analysis the nature and characteristics of the activity and the effect of the current state of the industry and environment:

John needs to carry out the assessment of credit risk associated with the commercial lending activity in his institution. John notes from Section IV of Credit Risk document that Commercial Lending falls within the Above Average grouping for inherent credit risk. With that as a starting point, to determine whether the credit risk for the particular activity in his institution is High, Above Average, Moderate or Low, John considers the characteristics of the activity and the relevant factors that drive the level of credit risk. He concludes that several factors are driving the Inherent Risk higher at his institution. He decides to rate credit risk for this activity as High because:

- a significant proportion of the activity is concentrated in two industry sectors;
- current depressed economic conditions adversely affects the two industry sectors comprising the majority of the activity;
- industry information indicates that the technology equipment sector has undergone significant expansion in recent years, resulting in high debt loads for most companies;
- the current economic recession has severely cut sales forecasts, and massive lay-offs are expected;
- recent statistics indicate high default rates within this industry;
- it is likely that these sectors will have difficulty accessing alternative sources of financing at this time;
- the balance of the portfolio, although diversified, has some dependencies on the two major industry segments in the region for their livelihood; and
- the ability of clients to service existing loans is uncertain, as is their long-term survival.

5.17 Caution: While this is one useful approach, supervisors should recognize there are some drawbacks to this approach. One is defining an "on average" activity that serves as a "starting point" for the assessment. The multiplicity of the characteristics and factors that affect Inherent Risk, the uniqueness of each institution's activity, and the different weighting of factors in different institutions, prevents generalizations in assessing Inherent Risk. The second is the dynamic nature of Inherent Risk – characteristics that would render an activity as having moderate inherent credit risk at a given time could change with changes in business and environmental conditions, thus assessments must be kept current. As well, the total risk curve of an activity could shift with changes in business and environmental conditions.

5.18 Where "on average" level of risk has not been identified for a particular activity, a supervisor would assess the Inherent Risk in a specific activity drawing from first principles: understanding the nature and characteristics of the activity; identifying those factors that might increase or decrease the level of risk; and considering the effect of the industry and environmental conditions, as well as experience, on the activity.

5.19 A comparison of products and activities/portfolios of peer institutions can provide important perspective on relative risk. A review of the differences in the activities/products that result in differences in the level of risks will help supervisors to better understand the risks in his/her institution's activities and their placement along the risk curve. Differences in the characteristics of lending activities in terms of the risk profile of the borrowers, the terms of the products offered, etc., could result in very different Inherent Risk ratings being assigned to two like activities.

5.20 Once the primary risk(s) has/(have) been assessed, the supervisor would then assess other Inherent Risks associated with the Significant Activity. For example, although credit risk may be the primary Inherent Risk in lending, there may also be material operational, liquidity or regulatory risks that would add to the overall Inherent Risk of the activity. Those risks would be shown in the relevant columns of the Risk Matrix (e.g., market, legal/regulatory, etc.) Finally, there may also be significant correlation among categories of Inherent Risks that needs to be considered in assessing the level of risk in a given category.

5.21 Based on industry knowledge, a supervisor may also determine that a given category of risk is not material in the Significant Activity being assessed. The supervisor would record these assessments accordingly. Such risks do not require a detailed review.

6.0 Relative "Riskiness" of Various Activities to one Another

6.1 It is important that Inherent Risk assessments of an institution's various Significant Activities are appropriate in relation to one another. Using the industry risk spectrum as the basis for the assessments should help in this process. Nevertheless, supervisors should perform a "reasonableness" review to consider whether the levels of risk across activities rated Moderate are comparable, and in relative terms, whether activities having Above Average and High Inherent Risk assessments are respectively higher than those rated Moderate for a given category of risk.

6.2 This "back testing" considers whether the relative assessments make sense, based on a supervisor's knowledge of the institution, its activities, and experience within the industry.

> For example, a supervisor has assessed the inherent Credit risk of an institution's three Significant Activities, residential mortgages, commercial lending and consumer lending, as Low, Moderate and Low, respectively. The supervisor would then consider whether the relative risk assessments were reasonable based on his or her knowledge and understanding of the institution, the industry and the environment. For example, the supervisor would consider whether the levels of inherent credit risk for the institution's residential mortgage and consumer lending activities are approximately the same, and the level of risk associated with the commercial lending activities are somewhat higher than the other two.

6.3 This type of evaluation is subjective and is based on the informed judgment of the supervisor, using his or her understanding of the environment, industry and the nature of the specific activities undertaken by the institution.

Attachments (the word «attachments» refers to the documents on Credit and Insurance Inherent Risks)

6.4 Documents have been created for credit and insurance risk (P&C and life).

6.5 Each reference document comprises four sections:

Section I provides examples of factors that may increase or decrease the level of Inherent Risk, together with matters to consider in analysing these factors. For example, when assessing the nature of the customer base in a lending activity, it is important to consider what industries the institution lends to, as well as how the current environment might affect the "creditworthiness" of these borrowers.

Section II provides examples of "Indicators". These represent quantitative or qualitative measures or observations a supervisor may identify at any point in the continuous supervisory process, which she or he would consider when analysing a Significant Activity. These measures or observations may be indicative of increasing or decreasing Inherent Risk (resulting from changes in the various factors that drive Inherent Risk), or of issues related to mitigation (strengths or weaknesses in risk mitigation policies or processes, or non-adherence to existing policies and processes), and should be analysed to determine the affect on the various related assessments.

For example, a supervisor may note a significant increase in non-performing loans. Further investigation by the supervisor should reveal whether the increase is a result of a change relative to the customer segments or products offered, increased concentrations in higher risk areas, and therefore represent a change in Inherent Risk, or weaknesses in the credit administration or portfolio management, or lowering of underwriting standards, and therefore a change in the quality of risk management (Operational Management and/or oversight).

These indicators; e.g., increase in NPLs, would normally form part of the analysis of the Significant Activity. If the increase in NPLs, as noted in the example, was the result of current environmental factors negatively affecting the institution's customer segments, and hence the Inherent Risk of the activity, the supervisor would follow up with an investigation into what Operational Management or the respective oversight function is doing to manage the increased risk. Conversely, if the increase in NPLs was determined to be the result of poor credit administration, the assessment of Operational Management would likely be affected.

Section III provides a) a relative grouping of key credit activities, by the "on average" level of Inherent Risk discussed above, and b) a brief explanation/ description of some characteristics that make that particular product inherently more or less risky than others for that category of Inherent Risk (credit, insurance).

Section IV provides examples of general mitigation processes and techniques an institution may implement to manage and control Inherent Risk in an activity. They have been set out in this document in order to differentiate between Inherent Risk factors and mitigation techniques, which often become blurred. Inherent Risk is assessed before and without considering the institution's risk management processes and controls.

Oversight by the relevant Risk Management Control Function (RMCF), although expected, is not specifically referred to in these documents. Supervisors should consider the Supervisory Framework rating Assessment Criteria in determining the quality of oversight provided by relevant RMCFs.

7.0 Tips

7.1 Not all seven categories of risk need be assessed for each Significant Activity; i.e., if the Significant Activity has no market risk, it should be recorded as N/A on the Risk Matrix.

7.2 Split ratings, such as low/moderate or moderate/high, should not be used.

7.3 Supervisors may find it useful to bold the key Inherent Risks in an activity in the Risk Matrix.

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