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Applying Risk Based Supervision on Saudi Arabian Ins. Co.'s

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Applying Risk Based Supervision on Saudi Arabian Ins. Co.'s

- Despite the multiplicity of the reasons that led to exposing the Ins. Co.'s to the risk of bankruptcy, there is a common factor among them that is the lack of proper risk MGMT.
- It is stable in the financial analysis that there is a strong positive correlation between capital adequacy & solvency & the level of risk to which the Co. is exposed.

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- Of course, the more financial solvency the Ins. Co. has, the more confidence within Ins. sector of the efficiency & effectiveness of the MGMT of the Co.
- Therefore, of the most important factors that affect the determination of the level of financial solvency of the Ins. Co.'s are the following:

1-Sufficient technical reserves.

2-Asset quality & its capability to be converted to cash in a timely manner in accordance with obligations' maturity.

3-Efficient MGMT of the company's assets & liabilities.

4-Selection of the suitable Reins. contracts.

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As a result, the capital adequacy seems to be very important for the Ins. Co. continuity & efficiency in the Ins. market.

Then, the capital adequacy should be determined as a function of the risk level, i.e. should be tied to the risks to which the company is exposed such as: the market, underwriting, liquidity, MGMT, credit risk, ... etc..

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Therefore, the new trend is to link the capital adequacy to the level of risk through setting a fixed minimum capital " as it exists now" & then add to it - according to the level of risk – a prudential minimum, which is determined as a % of the premiums or of loss as is the situation in the European Union Countries - index-based, where the solvency margin is determined using this method.

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Beside the prudential minimum, there are many developed countries in the Ins. industry such as: USA, Canada, Australia, UK, Switzerl&, Sweden, Japan, Finl&, Singapore & the European Union using the Risk Based Capital (RBC) where the solvency margin is determined in the light of the risk of the assets, interest rate, credit & the other risks that are related to the nature of the activity practiced by Ins. Co.

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The problem of the Search:

When the company grows & thus its premiums volume increase to reach a certain level while the nominal issued capital still the same (fixed), this capital does not represent a sufficient safety margin to protect the policyholder' rights. As some Ins. policies are related to certain high risk activities more than others, therefore, when the company underwrites this high risk activities, it should take into consideration the solvency margin & the need to add new capital to face this risk.

Applying Risk Based Supervision on Saudi Arabian Ins. Co.'s

The previous application of the traditional control & supervision methods -financial analysis & compliance based supervision- showed that they are inadequate to prevent failure or bankruptcy of the Ins. Co.'s & pension funds, therefore, the current method of control & supervision in most Arab states –including KSA- have proven to be incapable to protect the rights of policyholders & shareholders, which requires a shift to a new system that provide such protection.

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It has emerged in recent years the concept of the risk based capital (RBC), especially in banks & then in Ins., but there are many countries that started applying not only the RBC, but - & most importantly - to develop an integrated system for the control & supervision of the Ins. Co.'s that is the Risk Based Supervision (RBS). So, RBS is more general & comprehensive model than the RBC.

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Therefore, in this research, we will focus on this new system to determine its concept, objectives, requirements, procedures, the risks that are being monitored & how to apply it.

Also, we will focus on how to change from the current system (compliance based supervision) to RBS.

Applying Risk Based Supervision on Saudi Arabian Ins. Co.'s

Objective of the Research:

the aim of this research is to achieve the following:

1-Identify the most important features of the RBS.

2-The importance & objectives of RBS system.

3-Explain how to apply the RBS system & the challenges that facing it.

4-Determining the most important suggestions on how to prepare the Ins. sector to apply the RBS system.

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The importance of the research:

1-This is the first applied research in KSA on how to apply the RBS system to control & supervise the Ins. Co.'s.

2-It represents a road map for the application of the RBC system.

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Research Plan:

The objectives of this research will be attained through the following chapters & sections:

Chapter I: The traditional & recent methods of controlling & supervising the Ins. Co.'s:

Section 1: The most important risks the Ins. Co.'s face.

Section 2: The traditional methods of controlling & supervising the Ins. Co.'s & the most important criticisms directed to it.

Section 3: The recent methods of controlling & supervising the Ins. Co.'s

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Chapter II: The RBS as a method of controlling & supervising the Ins. Co.'s:

Section 1: Definition, objectives & requirements of RBS as a method of controlling & supervising the Ins. Co.'s

Section 2: The most important types of supervision that the supervisory authority has to take into consideration.

Section 3: The requirements for the application of the RBS system on the Ins. Co.'s.

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Chapter III: The role of the state in the Ins. sector:

Section 1: Actions taken by some States to ensure the financial solvency of the Ins. Co.’s.

Section 2: Transition to applying RBS system on the Ins. Co.'s.

Section 3: How to control the risks of the Ins. Co.’s.

Chapter IV: Findings & Recommendations.

Chapter One: Traditional & Modern Methods of Ins. Co.'s' Supervision

Section one: The most important risks the Ins. Co.'s face.

This section defines the common risks that are considered in most existing risk MGMT systems.

Strategic risk: *is the risk associated with the insurer's business model & business strategy*.

For example, an insurer that is introducing a new line of business with which it has had no prior experience or is entering a market segment in which it previously was not represented.

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In this case the new line of business may not be accepted by the market or the insurer may have difficulty penetrating the new segment.

So, the insurer faces the possibility of losing its investment in the new business & damaging its reputation.

Governance & MGMT risk: is the risk to the insurer that could arise from the failure of the Board of Director & MGMT to govern the insurer properly, because of lack of skills or lack of probity.

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Legal risk *is the risk to the insurer resulting from the legal system in which it operates.*

Insurers operate in a world that is subject to a vast array of legal requirements, not only from its own Ins. legislation but also from taxation, labor, consumer protection & competition laws … etc.

In many cases, failure to comply with the requirements of these laws carries substantial penalties.

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Liquidity risk is the risk that the insurer does not manage its cash flows adequately & is therefore unable to meet its financial obligations as & when they fall due.

If an insurer cannot meet its financial obligations, there is a risk of the supervisory authority revoking its license, a loss of business or damage to its business reputation.

Also considers the risk that the insurer has to borrow funds from the market at higher rates.

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Credit risk is the risk of default by counterparties in which the insurer has a financial interest. Insurers have three main groups of counterparties for which credit risk is relevant.

First Reins.'s: In paying claims, especially major claims, insurers rely on their ability to obtain timely settlement from Reins.'s of their portion of the claim.

Second: those institutions in which the insurer holds its financial assets, as insurers generate a significant portion of their income –beside premiums- through investing funds externally.

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Default by these institutions may have a severe impact on the insurer's profitability & liquidity.

Thirdly: insurers that have large corporate clients, those clients may not honoring the payment of premiums.

Investment risk or market risk is the risk of loss in the value of an insurer's assets due to changes in interest rates or foreign exchange rates.

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Ins. risk is the risk that the claims payable are greater than the premiums received.

There are two significant unknowns in the insurer's expectation: the future claims & the discount rate.

Ins. risk is the risk that these calculations are not correct & result in the insurer incurring a technical / underwriting loss.

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Operational risk is the risk resulting from the insurer's internal systems, processes & procedures (technology, fraud or breakdown), caused by either internal or external events.

If there is a failure, there can be considerable loss or disruption to the business & costs incurred in correcting or replacing defective systems.

Section Two: Traditional Methods of Ins. Co.'s' Supervision

There are many methods that are used to control & supervise the Ins. Co.'s. The most important & popular methods are:

1-Financial Ratios: is one of the oldest methods of financial analysis. It is a relative magnitude of two selected numerical values taken from an enterprise's financial statements.

There are many standard ratios used to evaluate the overall financial condition of a corporation.

Financial ratios may be used by managers within a firm, by current & potential shareholders & by a firm's creditors.

Section Two: Traditional Methods of Ins. Co.'s' Supervision

Financial analysts use financial ratios to compare the strengths & weaknesses in various companies.

Financial ratios is calculated & compared with the standard ones to measure the deviations between the actual & the expected values & the main reasons behind this.

In spite of the importance, it is difficult to explain its positive or negative changes without knowing its components.

Section Two: Traditional Methods of Ins. Co.'s' Supervision

2-Ins. Regulatory Information System (IRIS):

It is a financial analysis method established by the National Association of Ins. Commissioners (NAIC) in USA to detect problems of property & casualty Ins. & life & health Ins. Co.'s according to these audit ratios.

According to IRIS it splits the financial ratios to four categories: activity, profitability, liquidity & reserves determination. Then, it analyse the financial statements & calculating 11 ratios for property & liability Ins. & 12 ratios for life & health Ins. & comparing them to a predetermined standard values calculated from the market. If they lie outside the range, then it represents an early warning for insolvency.

Section Two: Traditional Methods of Ins. Co.'s' Supervision

Even though IRIS plays an important role in ranking the companies according to their exposure to financial problems & consequently their need to be financially checked, it has some weakness such as: it needs many tests, it does not rank the companies according to their solvency margin, & it is a typical or routine model that gives a reverse results in some cases.

So, we have to search for another flexible & accurate model that rank & predict the companies' solvency.

Section Two: Traditional Methods of Ins. Co.'s' Supervision

3-Solvency Margin:

According this method, it determine a financial solvency margin that each company should maintains as the higher of what stated in the law or a specific % of the earned premiums or the net incurred loss .

Of course, when the Ins. Co.' activities grow, & consequently its premiums to reach a specific limit & its issued nominal capital stay unchanged, it does not represent a safety margin to protect its policyholders & it has to add more capital.

Section Two: Traditional Methods of Ins. Co.'s' Supervision

The main criticism to this method is that it does not take into consideration the individual differences between the risks that each company is exposed to, its experience, MGMT, reserves, investments, etc.

We stated before that the most important factors that affect the determination of the level of financial solvency of the Ins. Co.'s are: Sufficient technical reserves, Asset quality, Efficient MGMT & Selection of the suitable Reins. contracts.

So, capital adequacy seems very important for its continuity & efficiency in the Ins. market.

Section Three: Modern Methods of Ins. Co.'s' Supervision

- As a result, it is supposed & a must to set a minimum capital for the Ins. Co.'s (100 million SR in Saudi Arabia, 60 million EP in Egypt, 5 million KWD in Kuwait, 50 million USD), & to be different in life Ins. & property Ins. & should be scaled according to the activity level of the Co.
- Because of the criticism towards the traditional methods in determining the solvency margin, the National Association of Ins. Commissioners (NAIC) has developed an early warning system through two systems:

Section Three: Modern Methods of Ins. Co.'s' Supervision

1-Financial Analysis Tracking System (FATS):

Even though this system has avoided many of the disadvantages of the IRIS, but the details & how to calculate its 25 financial ratios is unknown. These obstacles restrict the ability of the Ins. Co.'s to prepare the needed data in advance so as to pass the process of the solvency test.

2-Risk Based Capital (RBC):

According to this system, the supervisory authority instead of setting a minimum required capital for licensing the Ins. Co., it determines it continuously so as to be sufficient enough to meet all the risks that face the company taking into consideration the Co.'s size & the types of risks it faces.

Section Three: Modern Methods of Ins. Co.'s' Supervision

So, this system is a comprehensive one than the fixed capital & gives an accurate picture about the solvency of the Ins. Co. & its exposure to insolvency. Also, it gives the authority the right to interfere through many control level to support the solvency margin (warning, capital increase, prohibiting underwriting for specific period, license withdrawal, etc…).

But, the main challenges to the RBC system are its need to a large volume of data, a distinguished actuarial expertise, an advanced computer & managerial systems where there is a lack of all them in most of the Arab countries.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

RBS as a system for Ins. Co.'s' supervision is a new one that has its definition, objectives & requirements to be applied.

Section One

Meaning, Objectives & Requirements of RBS

The main role of supervisory authorities is to promote the maintenance of efficient, fair, safe & stable Ins. markets for the benefit & protection of policyholders1.

An effective supervisory authority is able to require an insurer to take timely preventive & corrective measures if it fails to operate in a manner that is consistent with sound business practices or regulatory requirements.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

Traditionally, authorities have performed this role by way of compliance based supervision under which insurers must comply with a set of prudential rules generally written into the law or the subordinate legislation.

The role of the supervisory authority is to ensure that insurers do, in fact, comply with these rules.

In recent years, supervision has been evolving & moving from a compliance based to the risk based.

This progression has also been a feature of the activities of bank supervision & pension supervision.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

A. What is risk based supervision?

Risk based supervision (RBS) requires supervisors to review the manner in which insurers are identifying & controlling risks. It requires supervisors to assess system & individual firm risk & to respond with the supervisor's own processes & interventions in line with the assessment. This allows supervisors to allocate resources to the insurers with the greatest risk & areas within an insurers that are high risk.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

The Objectives of risk based supervision:

1-Determining the timing of the supervisory authority intervention.

2-Reducing the cost of insolvency through early intervention.

3-Easy to be applied to all Ins. Co.'s.

4-It is a comprehensive system as it takes into consideration the differences between the Co.'s based on the types of risk that it is exposed to.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

RBS involves supervisors assessing four factors:

inherent risk, controls risk, residual risk & additional support.

Inherent risk is the risk of an adverse event occurring. The inherent risk may not be the same for identical activities undertaken in different circumstances. Insurers face a large number of risks that are of concern to the supervisor & which will be explored further on.

Controls are those actions that are put in place to lessen the probability, the severity or both of inherent risk.

Residual risk is the risk of an adverse event occurring even though the controls are in place & are working or being applied correctly.

Additional support refers to any additional factor that may be in place to deal with the outcome of an event occurring & which would lessen its overall impact.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

B. What are the main characteristics of RBS?

Under a compliance based approach, supervisory activities focus on the financial situation of the supervised entities at a given point of time, while, RBS is a dynamic process where the emphasis is more on understanding & anticipating the possible risks the supervised entity will be facing when executing its business plan, thus going beyond its current financial situation. So, RBS can be said to be more preventative.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

RBS is more flexible as compliance system relies on rules which the insurer must observe, while under RBS the authority is more focused on principles. If the rules are contained in legislation or subordinate legislation it may be costly & time consuming to change those rules in response to changes in the market.

An interesting example arises from the purchase by some institutions of highly rated; yet high yielding complex financial products-one of the events that led to the 2008 global financial crisis.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

C. How is RBS conducted?

Supervisors perform RBS by looking at all the material risks that are faced by an insurer & how it controls them. Supervisors assess the financial position of the insurer in the context of the residual risk & its ability to raise further capital if it is required to do so.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

D. What are the preconditions for successful RBS?

In order to implement RBS effectively, there are five elements that need to be considered:

- the state of the law,
- the structure of the supervisory
- agency, guidance & training for supervisors,
- a risk rating model &
- a measurement tool.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

- **The state of the law:**

The central tenet of RBS is that supervisors have a role in making certain that insurers have capital in place or available that is sufficient regard to the insurers' risks. Where a supervisor is not satisfied that the level of capital is commensurate with the risks of an insurer, it must has the power to compel the insurer to increase its capital.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

The structure of the supervisory agency:

The assessments of risks & the quality of controls are both subjective. The subjectivity is influenced by the attitude of individuals to personal risk (risk averse supervisors are likely to assess risks more than less risk averse one).

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

Two of the advantages of RBS elaborated above are the ability to compare institutions & to establish how an insurer's risk profile is changing over time.

Supervisory authorities need to be structured in such a way as to ensure a high level of consistency in order to exploit these advantages.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

Training & guidance for supervisors:

To deal with the possibility of inconsistency further, authorities will need to pay particular attention to initial & ongoing training & the provision of detailed guidance to supervisors.

Supervisors will be making a transition from objective rules based compliance assessments to more subjective risk assessments; therefore ongoing & follow up training is essential.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

Risk rating model:

The outcomes of all the components of the risk assessment are summarized in a risk model. The model generally summarizes each of the risk & control factors measured & condenses these into an overall risk assessment.

Simple risk models express individual consequences & probabilities in qualitative terms i.e. very high, high, medium & highly likely, likely, etc, respectively.

While the credit ratings of external agencies can be helpful in checking the calibrations of an authority's risk model, they shouldn't be used as a substitute for effective supervision, as events leading up to the global financial crisis have shown.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

Measurement tool:

The supervisors are expected to be able to justify the ratings that have been assigned to each risk & control. Authorities that design proper templates increase the consistency between ratings when the templates are used in conjunction with comprehensive guidance materials.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

F. What kinds of controls should a supervisor consider?

It is helpful to consider the role of the different participants in the risk MGMT process such as:

The role of the Board is to determine the risk preference for the insurer, set its overall direction & to ensure that MGMT is following the direction that it has set.

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

The role of the MGMT *is to implement the strategies & overall direction of the Board.* MGMT makes decisions on how these strategies & direction are to be achieved, sets policies & procedures to ensure they are communicated to operational staff. MGMT also monitors compliance with the policies & procedures.

The role of the External Auditor *is to ensure that the insurer presents a true & fair view of its operations to stakeholders & to express a view on the insurer's adherence to its policies & procedures.*

Chapter Two: RBS as a System for Ins. Co.'s' Supervision

The ***Internal Auditor*** *is responsible to the Board for ensuring that* the MGMT is implementing the strategies & directions of the Board & that operational staff is complying with the policies & procedures that have been formulated by the MGMT.

The role of the ***Actuary*** *is to advise on the financial soundness of the* insurer & ensure especially that Ins. risk is properly estimated & mitigated.

Section Two: An Application of RBS

To convert from compliance supervision to RBS, we have to take into consideration the following:

- **A. How often should risk assessments be reviewed?**
- The short answer is every time the supervisory agency obtains information about an insurer.
- Where other information comes to the supervisor's attention, this should trigger a review of the supervisor's risk assessment.

Section Two: An Application of RBS

B. Transitioning to RBS.

- Supervisory authorities that want to adopt a more risk-based supervisory approach need to plan the transition carefully. Although there are many advantages to the RBS, there are also some risks that arise from doing the transition hastily & without proper planning.

Section Two: An Application of RBS

- RBS requires supervisors to exercise judgments that are more subjective than they may be accustomed to doing under compliance programs.
- One of the aims of RBS is to be able to capture an insurer's risk profile. This is undertaken using a risk scoring model.
- Successful implementation of RBS depends on designing, testing & implementing a suitable risk scoring model.

Section Two: An Application of RBS

- **An Empirical Study:**

RBC is determined through two mathematical models, one for property & liability Ins. & the other for life & health Ins. through the following models:

First: The RBC for Property & Liability Ins.:

$$RBC = C_0 + \sqrt{C_1^2 + C_2^2 + C_3^2 + C_4^2 + C_5^2}$$

Where: $C_1 + C_2 + C_3$ are the Assets risk (fixed income investment risk, other investment risk & credit risk, &: C_4 & C_5 are the Underwriting risk (underwriting reserve risk & Underwriting premium risk). C_0 is the Affiliate insurers & other off-balance sheet Risk.

Section Two: An Application of RBS

After taking the covariance factor into consideration, the RBS for property & liability Ins. is determined through the following models:

$$RBC = C_0 + \sqrt{C_1^2 + C_2^2(0.5*C_{3a} + C_{3b})^2 + (0.5*C_{3a} + C_4)^2 + C_5^2}$$

Where: C_{3a} is the claims towards reinsurers, & C_{3b} is the other claims.

Section Two: An Application of RBS

- **RBC for Life & Health Ins.:**

RBC is determined through the following mathematical models for life & health Ins. through the following models:

$$RBC = C_0 + C_{4a} + \sqrt{(C_{1o} + C_{3a})^2 + (C_{1cs} + C_{3c}^2)^2 + C_2^2 + C_{3b}^2} + C_{4b}^2$$

Where: $C_1 + C_2 + C_3$ are the Assets risk, Ins. risk & interest rate risk (C_{1cs} for stocks & C_{1o} for other investment). C_{4a} is the business risk. Finally, C_0 is the Affiliate insurers & other off-balance sheet Risk.

Section Two: An Application of RBS

After taking the covariance factor into consideration, the RBS for life & health Ins. is determined through the following models:

$$RBC = C_0 + \sqrt{C_1^2 + C_2^2(0.5*C_{3a} + C_{3b})^2 + (0.5*C_{3a} + C_4)^2 + C_5^2}$$

Where: C_{3a} is the claims towards reinsurers, & C_{3b} is the other claims.

Section Two: An Application of RBS

Action Levels:

There are five outcomes to the RBC calculation which are determined by comparing a company's Total Adjusted Capital to its Authorized Control Level Risk-Based Capital which is called RBC Ratio, where:

$$\text{RBC Ratio} = \frac{\text{Total Adjusted Capital (TAC)}}{\text{Risk Based Capital (RBC)}}$$

The level of required risk-based capital is calculated & reported annually. Depending upon the level of the reported risk-based capital (RBC Ratio), a number of remedial actions, if necessary, are available as follows:

1. No action: Total Adjusted Capital of 200% or more of Authorized Control Level results in "no action."

Section Two: An Application of RBS

2. Company Action Level: Total Adjusted Capital of 150 - 200% of Authorized Control Level results in Company Action Level under which the insurer must prepare a report to the regulator outlining a comprehensive financial plan that identifies the conditions that contributed to the company's financial condition. This Plan must contain proposals to correct the financial problems & provide projections of the financial condition, both with & without the proposed corrections.

- **No action required by regulator.**

Section Two: An Application of RBS

3. Regulatory Action Level: Total Adjusted Capital of 100 - 150% of Authorized Control Level triggers a Regulatory Action Level.

- **Regulator has the discretion to take action against the company (for example, could restrict new business).**

4. Authorized Control Level: Total Adjusted Capital 70 - 100% of the Authorized Control Level triggers an Authorized Control Level.

- **Regulator is authorized to take control of the company, but not required to.**

Section Two: An Application of RBS

5. Mandatory Control Level: Total Adjusted Capital of less than 70% triggers a Mandatory Control Level that requires the regulator to take steps to place the insurer under control.

- **Regulator is required to liquidate or rehabilitate the company.**

Section Two: An Application of RBS

An Empirical Example for calculating RBC:

Statement	Statement Value	RBC net Factor	Risk -Based Capital
Asset Risk:			
Class 1 Bonds	100,000,000	0.004	400,000
Class 1 Bonds	20,000,000	0.013	260,000
Bonds subject to size factor			**660,000**
Size Factor			1.7
Total RBC for Bonds			**1,122,000**
Common Stock	1,000,000	0.2925	292,500
Asset Concentration Factor			45,000
Total RBC for Assets – C1			**1,459,500**

Section Two: An Application of RBS

An Empirical Example for calculating RBC:

Statement	Statement Value	RBC net Factor	Risk -Based Capital
Ins. Risk:			
Ordinary life Ins. in force	720,000,000		
Life Ins. reserves	90,000,000		
Net Amount at risk	630,000,000		
First $500 million	500,000,000	0.001495	747,500
Balance	130,000,000	0.000975	126,750
Total RBC for Ins. Risk – C2			**874,250**
Interest Rate Risk:			
Mathematical Reserve	90,000,000	0.007475	**672,750**
Total RBC for Interest Rate Risk – C3			**672,750**

Section Two: An Application of RBS

An Empirical Example for calculating RBC:

Statement	Statement Value	RBC net Factor	Risk -Based Capital
Business Risk:			
Life premiums	8,000,000	0.02002	160,160
Total RBC for Business Risk – C–4			**160,160**
Total Risk Based Capital			
C-1			1,459,500
C-2			874,250
C-3			672,750
C-4			160,160
Total Risk Based Capital			**3,166,660**

Section Two: An Application of RBS

An Empirical Example for calculating RBC:

Statement	Statement Value	RBC net Factor	Risk -Based Capital
Effect of Covariance			701,982
Company Action Level RBC			2,464,678
Authorized Control Level RBC (50% of Company Action Level)			1,232,339
Total Adjusted RBC			
Surplus	5,000,000	1	5,000,000
AVR	75,000	1	75,000
Dividend Liability	50,000	0.5	25,000
Total Adjusted RBC			5,100,000
RBC Ratio (Company's Capital)/RBC			2.07

Section Two: An Application of RBS

- In the US, the NAIC calculated the coefficient factors that are used in calculating RBC from the market data as whole (as a range), then calculating these factors for each company based on its data.
- So, to apply RBC for any country, we need calculate these factors from the market data as whole (as a range), then calculating these factors for each company based on its data.

Section Three: How the Supervisory Authority Control the Ins. Co.'s Risks

In this section, we explain how the supervisory authority control the Ins. Co.'s risks as follow:

Strategic risk:

In considering how **strategic risk** is controlled, supervisors need to consider a number of factors such as:

- If the insurer have a strategic planning process & if so, does the process consider the insurer's strengths, weaknesses, opportunities & threats?
- If the process takes in to consideration the costs of the alternative strategies & the financial capacity of the insurer to implement those strategies?

Section Three: How the Supervisory Authority Control the Ins. Co.'s Risks

- If the Board is involved in the strategic planning process? And what is the mechanisms?
- If there is an evidence that the insurer has suffered from a major write off or losses in the past as a result of failed business initiatives?

Section Three: How the Supervisory Authority Control the Ins. Co.'s Risks

Governance risk:

Supervisors need to know how the Board is appointed & functions & take into consideration:

- Does the Board put in place an official charter that defines its role & distinguishes it from the role of MGMT?
- If the individual Directors proper & fit?

Section Three: How the Supervisory Authority Control the Ins. Co.'s Risks

- Is there any of the director(s) a key person (his absence would render the Board ineffective & what are the mitigating steps to address it?
- Has the Board put in place sufficient processes to deal with the conflicts of interest?
- Is the Board has in place a mechanism to evaluate its performance periodically?
- (Same procedure should be considered for the MGMT).

Section Three: How the Supervisory Authority Control the Ins. Co.'s Risks

Legal risk:

For controlling legal risk, supervisors has to know the various legal requirements to which an insurer is subject. **Supervisors need to consider the following:**

• Is the Board & MGMT are aware of the legal framework in which the Co. operates?

How they communicate the legal requirements & any changes to the staff & how they incorporate them in policies, processes & procedures?

Section Three: How the Supervisory Authority Control the Ins. Co.'s Risks

Liquidity risk:

Supervisors need to take the following into consideration in forming a view about insurers regarding how they mitigate liquidity risk:

- Does the Board consider the liquidity risk?
- Is the insurer has in place a sufficient policies & procedures to manage liquidity risk & is the insurer abiding by it?
- Is the insurer has an estimation of its cash needs & applying stress tests &/or scenario tests on these estimation?
- Is there any proof of past liquidity problems?

Section Three: How the Supervisory Authority Control the Ins. Co.'s Risks

Credit risk:

Insurers must control the credit risk that arises from their arrangements with clients (especially corporations with large premium Ins.), reinsurers & institutions in which insurers invest & the set of policies & procedures that govern how the insurer selects counterparties.

Supervisors under RBS, must assess:

- Awareness of the Board & MGMT to the need for managing credit risk?
- Availability of a framework for policies & procedures to manage credit risk? Is it reviewed regularly & reported to the Board & MGMT?

Section Three: How the Supervisory Authority Control the Ins. Co.'s Risks

Investment risk (Market risk):

Supervisors need to establish:

- Is the insurer has a framework, policies & systems for managing this risk & are they sufficient?
- Has the Board established an investment committee with representing delegate to set guidelines & select investment opportunities?

Section Three: How the Supervisory Authority Control the Ins. Co.'s Risks

Ins. Risk:

Supervisors must focus on two factors:

- how products are designed & priced &
- how claims are assessed.

An insurer must have in place a system for selecting products & pricing its to reflect the risk.

- Also, an insurer must have in place a system for settling claims & the Board & MGMT should be aware of the risks involved on it.

Section Three: How the Supervisory Authority Control the Ins. Co.'s Risks

Operational risk:

Insurer should take into consideration:

- If it put in place sufficient policies, procedures & systems to manage business lines & information technology risks & what is the supervisor's opinion about the quality of these policies & if they are effectively in practice?

Findings & recommendations

Findings:

1-It appears that the solvency margin method as the most important traditional methods to insure the solvency margin does not take into account the level of risk that the Ins. Co.'s encounter in an objective way, which makes detecting the differences between Ins. Co.'s difficult, & as a result, it is not a powerful method to insuring the solvency of Ins. Co.'s.

Findings & recommendations

2-Most Arab countries in recent years headed towards raising the capital of Ins. Co.'s in order to improve its financial performance & that in itself is a good thought however, it is insufficient as this method- fixed capital for all companies- treats all companies (whether big or small, sells few or several Ins. products, life or general Ins.) does not take into account the risks that face the Ins. Co's in a realistic & accurate way.

As a result, it does not take into consideration the individual differences between the Ins. Co.'s, so it became inappropriate to insure the solvency of the Ins. Co.'s.

Findings & recommendations

3-Arab Ins. Co.'s also started to adjust its position with new regulations in terms of capital & types of services & credit rating & searching for partnership to support their financial position.

Also it started the necessary legislative changes over the Ins. legislations to keep pace with the open market & expected competition.

Findings & recommendations

4-The decisions taken from Ins. Co.'s in managing risks affects its solvency margin & this shows the importance of the RBS where it gives risk MGMT the utmost importance to the extent that the value of capital needed from each company will differ depending on the risks they underwrite & the way it is managed.

5-The reason of searching for a new system to ascertain an available & sufficient solvency margin for a company for not facing financial insolvency back to the failure in managing the underwritten risk that leads to a low solvency margin.

Findings & recommendations

Recommendations:

1-The researcher suggests starting procedures to rectify a few legislatives relating to the relationship between the original capital level, variable capital level, solvency margin & risk limits which can allow an initial application of the RBS.

2-The researcher recommends applying the International Accounting Standards on Ins. Co.'s especially when it comes to assessing assets such as shares to its market value so as to represent the realistic financial position.

Findings & recommendations

3-The researcher recommends the necessity of applying corporate governance principles over the Ins. Co.'s for the importance it brings for either shareholders, policy holders or the general public.

4-The necessity of reinforcing & supporting the cooperation between Arabian Supervisory Authorities Agencies over all levels & in all areas, especially in developing organizational, supervisory & control frames, as well as the necessary standards to organize & develop Ins. work in the Arabian Ins. markets & exchanging information, knowledge & joint programs.

Findings & recommendations

5-Reinforcing cooperation with IAIS, global & local organizations that relate to & involve in the new educational program in the IAIS that assist Ins. supervisors, especially in developing countries, to improve its control systems & upgrade their employees & promote their skill sets.

6-The necessity to establish Ins. institutes in all Arab countries (some countries have Ins. institutes such as EII in Egypt, SAMA in Saudi Arabia & BIBF in Bahrain, AII in Syria) for its major influence in raising the professional level of the Ins. sector in addition to having treaties & cooperation with global institutes of Ins. in developed countries & facilitating acquiring professional designations.

Findings & recommendations

7-The researcher recommends applying supervision based on RBS where the supervisory agency determines & designs levels of control interference based on the level of risk of each company as it brings fairness & saves supervisory agencies efforts through paying more attention to the companies whose risk levels are higher.

8-Raising technical & administrative proficiency levels of the Ins. Co.'s employees, especially underwriters, through training programs & studying the presented risks to the companies sufficient enough to prevent it from insolvency & bankruptcy.

Findings & recommendations

9-Establishing a separate department for managing risks inside Ins. Co.

10-The inspection programs (as part of the supervision) must include assessing MGMT & internal control departments & analyzing the nature of activities inside the company, its objectives & its business plan as well as assessing the systemic & administrative structure of the company.

11-Assessing marketing policies of the company's products & reviewing the regulations of commission & production.

Findings & recommendations

12-Analyzing the relationship with the external parties & especially with the company's overseas branches, as well as the parent company & assessing the solvency margin of the Ins. Co.

13-Finally, studying the basis of claim settlement & how to assess technical reserves & setting the adequate & equitable rates.

Applying Risk Based Supervision on Saudi Arabian Ins. Co.'s

Thank You!

Any Questions?