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### Impacts of Solvency II Regulations on the Insurance Companies and their Operations

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#### Abstract

To run a market smoothly, regulations are very important. These regulations worked as set of parameters for all business operators, managers and their key stakeholders of a specific domain to work under certain rules so that every business has equal opportunity to earn and expand their operations. In Europe since mid of 18<sup>th</sup> century several legislations were introduced to regulate the market to protect the rights of investors, business and their stakeholders and also to create a free and fair market for all. Insurance companies and their managers were facing a problem with dissymmetry of information which means that they either they do not share important information to each other or either the access to the information was a way costly for them. There was a need of monitoring the economic activities and setting certain requirements for licensing. Regulations, ethics and rules were being introduced since 1800s. after the mid of 20<sup>th</sup> century, a series of regulations were introduced to regulate the insurance market in Europe according to one market policy and from this series the latest regulations implemented in 2016 are termed Solvency II regulations. Solvency II regulations introduced new risk based economic capital requirements that

can affect corporate financing and capital markets across Europe. On the other hand, there are no limitations applied through Solvency II to the market risk that is why it is safe to state that it will not influence the strategies of insurer companies. This paper will review the impacts of solvency II regulations on the insurance companies and their operations.

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## **Introduction**

The core reason for regulating is to correct imperfections, lowering or solving the cost information issues and solving the agency problems such differences between management and policy makers, this problem arises because of nonalignment of the information between them. Acquiring such information has certain cost. To resolve these issues, several regulations were introduced for 200 years for disclosure and sharing of information, supervising and monitoring the capital requirements and licensing process.

During the 1970s some rules were introduced by member countries of the European Union in order to regulate the insurance companies and in 2004 new regulations were proposed in order to meet with the requirements of a new single European market while the current Solvency II regulations were formally incorporated in European countries in 2016.

Primary objective of the European Union is to create a common single market for the member countries and Solvency II regulations were proposed to improve the process to supervise the regulations in the region. When originally introduced the regulations of 1970s and their updates were termed as insurance directives, they primarily focused on the coverage, licensing and relationship between regulators and supervisors while offering the product to the whole Europe.

In 1990s it was felt that framework is outdated while at the same time Basel II regulations were being introduced in banking, steps to improve the regulation of insurance were taken by the union. A two-step approach was proposed and termed as Solvency I regulations which replaced the old 1970s insurance directives and was implemented in 2004 but the original structure remain the same whereas, Solvency II changed the structure and supervision process of the regulation in the Union.

To improve the several other regulatory rules, aligned with the Solvency II were also initiated. In United Kingdom the Internal Capital Assessment Standards (ICAS), Solvency Test in Switzerland (SST) financial Assessment Framework (FTK) of Netherlands. Eling and associates analyzed

several solvency systems (Eling et al. 2007). International Association of Insurance Supervisors (IAIS) also initiated several programs to improve the solvency frameworks. Among all these Solvency II stands distinguish because of the two reasons. First, it is not principles rather it is proper legal set of regulations and secondly, because of its implications as it is applied to a larger market. These regulations framework is based on three things, first financial requirements, insurance liabilities and assets, 2<sup>nd</sup> is supervision and third is maintaining the discipline in the market. The first pillar capital requirements consisting of valuation of the balance sheet, market consistency and assets and liabilities. This also further more requirements, one is Solvency Capital Requirement (SCR) and other is Minimum Capital Requirement (MCR) the upper value solvency Capital Requirement is calculated through a standard approach when lower value of minimum capital requirement is violated the supervisory came into action according to the Solvency II article 136. Through this, Solvency II regulations protects the interests of policyholders.

International Association of Actuaries indicates that there are four major risk classifications of the standard internal model, i.e. SCR first underwriting risks second Credit risk the third is Operational risk and the forth is market risk which is further subcategorized different classifications along with the formulae which are twenty in total.

### **Solvency II regulations, Critical analysis**

The greatest regulatory reform in Europe for insurance company came into light with the implementation of capital risk-based Solvency II regulations this can impact the insurance companies in various ways especially their investment strategies because these regulations requires the asset allocation for market risks. Michel Barnier, European Commissioner for Internal market and services in a letter to insurance industry said that the there is a heavy criticism on these regulations that the standards set in these regulations are unnecessarily high is not true. With the introduction of similar risk-based capital standards in the United States back in 1994, similar questions were raised, when Petroni and Shackelford pointed out that there is no response to the asset risk component of risk-based capital while they examined extensive data of life insurance companies in the United States. Capital requirements in Solvency II raised prospects and fears among the market stakeholders as it was indicated in the committee on the Global Financial System (CGFS) that according to the new risk charges there might be a need of rebalancing the asset sets of insurance companies.

## **Commins Criteria**

Commins et al. (1994) develop a formula based on seven points and following is the critical analysis of the Solvency II regulations based on those seven points which revolves around the core idea of a competitive market where relevant information could be accessible for every stakeholder. Doff, (2008) analyzed data from 1969 to 1990 of around 300 insurance guarantee fund assessments from which about 80 percent of the total were caused by 25 largest failures this indicates that the larger companies contain the higher potential for bankruptcy than of the smaller ones.

## **Increments for small companies**

In the Solvency I, there were no incentives discussed hence significant risks were ignored and ultimately disturb the good risk management. But in the case of Solvency II regulations, a system of SCR was introduced in which with higher SCR values for the companies with higher risk profiles. In the Solvency II there are no extra incentives given to the financially weak companies but every company is encouraged to take steps to eradicate the risks and value the liabilities through economic rules. Ultimately it appears in Solvency II regulations that there is difference in risk for different companies according to their exposure size, scenario etc. hence, it is specific on risk and risk sensitive approach. These components which are based on scenarios create the right incentives for the weaker companies through reducing the exposure to risk and by improving their position.

The companies using internal models normally assume the risks correctly because these models are aligned with the management and company policy and process that ultimately decreases the problems for company. Whereas standard approach does not create proper incentives for health and non-life financially weak companies as indicated by Sijben (2002). Numerous stakeholders argue about the role of supervisors about the hard limit value if the SCR is breached by a company, there is also another question raised by the stakeholders that whether this breach always must be public or a temporary breach can be kept private between supervisor and the company. In the Solvency II regulations, capital is assumed to work as a buffer to absorb any uncertainty or capital risks and when there are too strict supervisory actions taken in case of breach in SCR can result injustice incentives that is why SCR is used as target value and it has support with Pillar II. In nut shul these regulations contain equal incentives for weak and strong companies but their capital

reaching to SCR creates different behavior hence this makes a difference for weak companies that is why we can state that these regulations comply with the first point.

### **Reflection of major types of risk**

In the risk-based capital framework it is important to cover all types of possible risk factors because supervisors cannot differentiate the financially weak companies from stronger ones if the financial requirements are not risk sensitive. This is also indicated in the Sharma Report (2003) they critically analyzed several insurance failure cases and indicated that financial problems are not caused by a single problem but they came out because of multiple interconnected problems and secondly, the capital requirement are less important rather internal controls and corporate governance play more important roles in success or failure of a company. In solvency II regulations there are financial requirements for market, underwriting, credit and risks. All of these risks are extensively discussed in the Pillar I of these regulations. Liquidity risks are not discussed in the Pillar I because there is no proper method to measure this risk and secondly, these regulations focus on solvency position rather than the liquidity position however, in Pillar II this risk is addressed. The next type of risk is operational risk, which is also a debatable because there is difference of opinion on how to measure the operational risk. Method for measuring the operational risk in these regulations are comparatively simple based on premiums and technical provisions. Ven den Tillaart, (2003) concluded that complex calculations are not useful to predict the operational losses and in the all three Pillars of solvency II these are addressed through a simple formula.

Kuritzkes and Scheuermann (2006) indicates the strategic risk and also mentioned that this type of risk is not a direct matter of concern for the supervisor instead it is the other stakeholders such as shareholder who are directly concerned by this type of risk but the Sharma report (2003) suggests that business risk is a matter of concern for the supervisors because the wrong decisions usually led a company towards its failure. Doff (2006) mentioned that other methods and tools to address the business risk will be more useful rather than through the financial requirements. Overall, we can say that these regulations address the major risks through extensively addressing the capital requirements and hence the Solvency II framework turnout to be a the most logical and comprehensive method to address the risks.

### **Impact on overall risk of insolvency**

Third criteria suggest that the burden of capital weight for risks must be in proportion to their overall impact. In Solvency II, internal model and standard approaches for SCR both requires insurers to keep their gross capital value at risk at 99.5 percent, hence we can say that this overall covers the third criteria to minimize the insolvency risk at the minimum level. Along with this, there is a need to set the parameters carefully because too high standards require higher capital.

### **Impact on overall risk of insolvency**

According to Commins et al. (1994) a good capital-based system should have an ability to identify the companies to impose higher costs of insolvency this is because the failure of larger companies effects the economy on higher level and from the regulator perspective, the objectives are limited to minimizing the failure costs rather than overall risk. In the solvency II regulations, QIS2 for standard approach contains a size factor which unveils that there is a lower capital requirement for larger companies that clearly reflects that on this point, these regulations are not meeting with this criterion.

### **Reflection the economic value of assets and liabilities**

The Solvency II regulations concentrates on market consistent estimation of assets and practical supplies. In Sharma Report (2003) they indicated risk sensitive financial requirement and market consistent systems are supported by the insurance industry. If the market consistent techniques for insurance liabilities that will not meet the measurement of balance sheet for IFRS hence this criterion is not satisfied so as a result, Solvency II could adopt the IFRS as valuation.

### **Discouraging the underreporting of loss of reserves**

In Solvency II the issue of underreporting, loss of reserves and several other ways through which companies manipulates the market and their stakeholders is discussed briefly. In the current times of corporate frauds incentives should be minimized for the companies for misreporting. This subject is related to corporate governance on site monitoring which is added in Pillar II.

### **Avoid complexity to increase accuracy in risk measurement**

The complexity in any economic or account system may increase the possibilities of its failure. It is also noteworthy that a complex system normally is not accepted by the stakeholders and its users. In case of Solvency II regulations this system is widely accepted and even desirable for regulators and supervisors. Capital requirements, supervision and discipline in market and option for using internal model is a well appreciated framework. In order to comply with these regulations' insurance companies will have to fulfil certain requirements.

### **Impacts of Solvency II regulations on European Insurance Companies**

Various studies about risk-based capital requirement regulatory on insurance companies suggested that there is no restructuring needed for insurance companies in response to comply with the rules and regulations set by risk-based capital requirement regulations (Petroni and Shakelford, 1996). Whereas Cheng and Weiss (2011) in their study found that financially weak companies dealing with property and casualty are tend to acclimatize according to the new regulations.

Multiple studies were conducted for fining the impacts of Solvency II regulations on the investment strategies and polices of the companies of Europe. Rudschuk et al (2010) stated that these new risk-based capital requirements will force the companies to decrease their equity exposures. Van Bragt et al. (2010) found that there is a key effect of duration and allocation of assets on regulatory capital requirement. Jaffee and Walden (2010) indicated that these new regulations have a marginal long-term effect on cost and availability of capital but these regulations may cause a huge burden of cost on the insurance companies that may reduce the demand of policies as a result of higher cost of premiums.

Kaserer (2011) in his study suggested that European insurance companies will reduce their long-term corporate bonds with lower credit quality. He argues that there is large level impact of restructuring the portfolios of insurers. This can increase the financing cost resulting slowing down the economy. He supported his arguments with an evidence that with the reports of implementation of Solvency II regulations, stock prices of insurance companies were decreased to overall 15 percent. Al-Darwish (2011) also indicated that there could be increase in investing in EEA sovereign debt and short dated maturities that can lower down the issuance of long-term unsecured debt by banks.

Morgan Stanley and Oliver Wyman (2010) also found a shift from equities and illiquid to short term corporate bonds they also indicated that for non-life insurers rating capital is still vital component. Fitch (2011) in his study also indicated a great appeal for short-term corporate bonds and great influence of capital requirement on investment strategies.

## **Conclusion**

Recent studies suggested that in response to the increased market pressure may lead the insurance companies to hold some excessive capital then the SCR up to 50 percent in because of Solvency II SCR requirements. The real financial risk is not mirrored via zero credit spread risk capital charge for Europe Sovereign debt and because there is a requirement of recognition of credit spread risk in Solvency II regulation it also creates an uncertainty between Pillar I and Pillar II. There is unadorned effect of debt crises on the insurance industry of Europe. Banking debt, worse macroeconomic conditions, fall in prices of equity and decline in interest rates are few of several serious intimidations faced by insurance companies in Europe. But there is no significant impact of Solvency II on capital investment policies. However, after facing the severe debt crises some European insurance companies may change their underwritings and investments in order to secure the ratings and regulatory solvency.

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