

SOLVENCY II – SUPERVISION OF THE INSURANCE UNDERTAKINGS RISK MANAGEMENT SYSTEMS

Abstract

The main purpose of this paper is to analyze Solvency II which is a new supranational insurance regulatory regime introduced by the institutions of the European Union in order to enhance the financial stability of the insurance and reinsurance undertakings, and provide better protection for policyholders and insurance beneficiaries from insolvent insurance. These paper consists of 4 parts, including:

1. Introduction;
2. “Solvency” - reasons for creating a new risk management system;
3. “Solvency II” – System based on three pillars; and
4. Conclusion.

In the first part: “Introduction” we define and explain the new regulatory framework of the European Union to maintain the solvency of insurance institutions.

In the second part: “Solvency - reasons for creating a new risk management system”, we explain the new capital requirements for insurance undertakings of the European Union’s member-states, and also the reasons for the changing of the method of calculating the capital requirement for insurance and reinsurance undertakings, and the methodology which is used to calculate this capital requirement.

In the third part: “Solvency II – System based on three pillars”, we analyze in detail the legal framework of the European Union that regulates the issue of Solvency II, as a system that is based on three pillars which are: quantitative requirements, quality requirements and mandatory disclosure of market data.

In the fourth part: "Conclusion", we give our basic conclusions that arise from our paper.

We expect this paper to allow the establishment of a clear picture of Solvency II regulation, which ensures that reorganization measures that were adopted by the competent authority of European Union member-states in order to preserve or restore the financial soundness of an insurance undertaking, and to prevent, as far as possible, a winding-up situation, will produce full effects throughout the Community.

Keywords: *insurance, solvency, insurance supervision, non-life insurance, life insurance, health insurance, risk, solvency capital requirement, minimum capital requirement.*

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1. Introduction

Solvency II is a new supranational insurance regulatory regime introduced by the institutions of the European Union in order to enhance the financial stability of insurance and reinsurance undertakings, and to provide better protection for policyholders and insurance beneficiaries from insolvent insurance.

The protection of policy holders is the main objective of the insurance supervision. That objective presupposes that insurance and reinsurance undertakings are subject to effective solvency requirements that result in an efficient allocation of capital across the European Union. In light of market developments, the current system is no longer adequate. It is therefore necessary to introduce a new regulatory framework. Financial stability and fair and stable markets are other objectives of insurance and reinsurance regulation, and supervision which should also be taken into account but should not undermine the main objective.²

The starting point for the adequacy of the quantitative requirements in the insurance sector is the Solvency Capital Requirement. Supervisory authorities therefore have the power to impose a capital add-on to the Solvency Capital Requirement only under exceptional circumstances, following the supervisory review process. The Solvency Capital Requirement standard formula is intended to reflect the risk profile of most insurance and reinsurance undertakings.³ However, there may be some cases where the standardized approach does not adequately reflect the very specific risk profile of an undertaking. Some risks may only be properly addressed through governance requirements rather than through the quantitative requirements reflected in the Solvency Capital Requirement. An effective system of governance is therefore essential for the adequate management of the insurance undertaking, and for the regulatory system. The system of governance includes: the risk-management function, the compliance function, the internal audit function and the actuarial function. In order to guarantee transparency, insurance and reinsurance undertakings should publicly disclose – that is to say make it available to the public either in printed or electronic form free of charge – at least annually, essential information on their solvency and financial condition. Undertakings should be allowed to disclose, publicly, additional information on a voluntary basis.⁴

Solvency II provides legal grounds for exchanges of information between the supervisory authorities and authorities or bodies which, by virtue of their function, help to strengthen the stability of the financial

² European Commission, (2010), “Solvency II: Frequently Asked Questions (FAQs)”, pp.1-13.

³ Scott H., (2005), “Capital Adequacy beyond Basel – Banking, Securities, and Insurance”, Oxford University Press, p.98.

⁴ European Commission, (2010), “Proposal for a Directive of the European Parliament and of the Council, amending Directives 2003/71/EC and 2009/138/EC in respect of the powers of the European Insurance and Occupational Pensions Authority and the European Securities and Markets Authority”, pp.1-51.

system. Solvency II therefore specifies the conditions under which those exchanges of information are possible.

The assessment of the financial position of insurance and reinsurance undertakings should rely on sound economic principles, and make optimal use of the information provided by financial markets, as well as generally available data on insurance technical risks. In particular, solvency requirements are based on an economic valuation of the whole balance sheet. Valuation standards for supervisory purposes are compatible with international accounting developments, to the extent possible, so as to limit the administrative burden on insurance or reinsurance undertakings.⁵

In accordance with that approach, capital requirements should be covered by own funds, irrespective of whatever they are on or off the balance-sheet items. Since not all financial resources provide full absorption of losses, in the case of winding-up and on a going-concern basis, own-fund items should be classified in accordance with quality criteria into three tiers, and the eligible amount of own funds to cover capital requirements should be limited accordingly. The limits applicable to own-fund items should only apply to determine the solvency standing of insurance and reinsurance undertakings, and should not further restrict the freedom of those undertakings with respect to their internal capital management.⁶

In order to allow insurance and reinsurance undertakings to meet their commitments towards policy holders and beneficiaries, member states should require those undertakings to establish adequate technical provisions. The principles and actuarial and statistical methodologies underlying the calculation of those technical provisions are harmonized throughout the Community in order to achieve better comparability and transparency. The calculation of technical provisions is consistent with the valuation of assets and other liabilities, market consistent and in line with international developments in accounting and supervision. The value of technical provisions, therefore, corresponds to the amount an insurance or reinsurance undertaking would have to pay if it transferred its contractual rights and obligations immediately to another undertaking. Consequently, the value of technical provisions corresponds to the amount that another insurance or reinsurance undertaking (the reference undertaking) would be expected to require to take over and fulfill the underlying insurance and reinsurance obligations. The amount of technical provisions reflects the characteristics of the underlying insurance portfolio. Undertaking-specific information, such as that regarding claims management and expenses shall therefore be used in their calculation, only insofar as that information enables insurance and reinsurance undertakings better to reflect the characteristics of the underlying insurance portfolio.⁷

The supervisory regime should provide for a risk-sensitive requirement, which is based on a perspective calculation to ensure

⁵ Sandstrom A., (2006), "Solvency – Models, Assessment and Regulation", Chapman & Hall/CRC, Taylor & Francis Group, pp.290,291.

⁶ De Weert F., (2011), "Bank and Insurance Capital Management", Wiley Finance, pp. 58-62.

⁷ Committee of European Insurance and Occupational Pensions Supervisors, (2010), "Solvency II – Calibration Paper", CEIOPS-SEC-40-10, pp.3-26.

accurate and timely intervention by supervisory authorities, and a minimum level of security below which the amount of financial resources should not fall. The Solvency Capital Requirement shall reflect a level of eligible own funds that enables insurance and reinsurance undertakings to absorb significant losses, and that gives reasonable assurance to policy holders and beneficiaries whose payments will be made as they fall due. In order to ensure that insurance and reinsurance undertakings hold eligible own funds that cover the Solvency Capital Requirement on an on-going basis, taking into account any changes in their risk profile, those undertakings shall calculate the Solvency Capital Requirement at least annually, monitor it continuously and recalculate it whenever the risk profile alters significantly.

In accordance with the risk-oriented approach to the Solvency Capital Requirement, it is possible, in specific circumstances, to use partial or full internal models for the calculation of that requirement rather than the standard formula⁸.

When the amount of eligible basic own funds falls below the Minimum Capital Requirement, the authorization of insurance and reinsurance undertakings shall be withdrawn, where those undertakings are unable to re-establish the amount of eligible basic own funds, at the level of the Minimum Capital Requirement, within a short period of time. The Minimum Capital Requirement ensures a minimum level below which the amount of financial resources should not fall. It is necessary that the level be calculated in accordance with a simple formula, which is subject to a defined floor and cap based on the risk-based Solvency Capital Requirement, in order to allow for an escalating ladder of supervisory intervention, and that it is based on the data which can be audited.⁹

Insurance and reinsurance undertakings which are part of a group, the head of which is outside the Community should be subject to equivalent and appropriate group supervisory arrangements.

Since national legislation concerning reorganization measures and winding-up proceedings is not harmonized, it is appropriate, in the framework of the internal market, to ensure the mutual recognition of reorganization measures and winding-up legislation of the member states concerning insurance undertakings, as well as the necessary cooperation, taking into account the need for unity, universality, coordination and publicity for such measures and the equivalent treatment and protection of insurance creditors. Solvency II ensures that reorganization measures, which were adopted by the competent authority of a member state in order to preserve or restore the financial soundness of an insurance undertakings, and to prevent as far as possible a winding-up situation, produce full effects throughout the Community.

2. “Solvency” - reasons for creating a new risk management system

⁸ Wuthrich M.V., Merz M., (2013), “Financial Modeling, Actuarial Valuation and Solvency in Insurance”, Springer Finance, pp.261-336.

⁹ Sandstrom A., (2006), “Solvency – Models, Assessment and Regulation”, Chapman & Hall/CRC, Taylor & Francis Group, p.284.

An undertaking is considered solvent if it is able to meet obligations at any time¹⁰. The obligations of the insurance undertakings that arise from the insurance contracts are called technical provisions. The calculation of technical provisions is made in a manner which will ensure that the calculated amount will be sufficient to cover all liabilities arising from insurance contracts. Technical reserves are calculated by the insurance premium, and they are presented in the balance of the undertakings as: reserves for unearned premiums, reserves for claims, reserves for bonuses, mathematical reserves, reserves for unexpired risks and other technical provisions. The predominant form in which the insurance undertakings establish and operate is joint stock companies, in which there is separation between management and ownership.

The Article 16 of the Directive 73/239/EEC for non-life insurance and the Article 27 of the Directive 2002/83/EC for life insurance set the basic criteria of economic categories that are part of the solvency margin of the insurance undertakings established in the territory of the European Union member states. The available solvency margin or equity of any insurance undertaking is the difference between the assets of the undertaking, and all anticipated liabilities and intangible assets. The expected responsibilities of an insurance undertaking are actually its technical provisions, which are derived and calculated on the insurance contracts that derive from the primary operation.¹¹

The capital, or required solvency margin, that any subject should have is calculated using a simple mathematical operation. The calculation varies depending on whether the entity performs a life insurance or non-life insurance. The European Union member state has calculated the required solvency margin by two indices of security, one based on premiums and other on damages. In any case, even if it were composite undertakings that perform insurance activities within the two groups of insurance (life and non-life), the capital of the undertaking must not fall below the sum of the required level of solvency margin, calculated separately for life on non-life insurance. Otherwise, if the capital of the undertaking is below the required level of solvency margin, it is considered that the solvency of the undertaking is in danger, which is an indicator that the undertaking has, or could have, operating problems.¹²

In order to better protection of the policy holders in the single market of the European Union, the insurance undertakings need to have new capital requirements in respect to the risks. The European Commission concluded that there is a need to simplify the model, and to increase the existing minimum amount of the guarantee fund, especially due to the rise of prices in average paid claims and operating costs compared with the same period of the first set. Accordingly, it was concluded that also there is a need to increase the thresholds above which lower percentage rates for determining the solvency margin

¹⁰ Vaughan E.J., Vaughan T., (2007), "Fundamentals of Risk and Insurance", Tenth Edition, John Wiley & Sons, Inc., 2007. p.106.

¹¹ Sandstrom A., (2006), "Solvency – Models, Assessment and Regulation", Chapman & Hall/CRC, Taylor & Francis Group, pp.11,12.

¹² Sandstrom A., (2006), "Solvency – Models, Assessment and Regulation", Chapman & Hall/CRC, Taylor & Francis Group, pp.47-50.

according to the method of premium and method of damage, will be applied.

Hence, there are new definitions and capital requirements for insurance undertakings which are contained in Directive 2002/13/EC (for non-life insurance) and in the Directive 2002/12/EC, which was later revoked and included in Directive 2002/83/EC (for life insurance). The calculation of the required solvency margin for undertakings which performance work of non-life insurance, according to the method of premium, is calculated as 18% of gross written premium, in an amount not exceeding 50 million EUR, instead of 10 million EUR as it was defined by the Directive from 1973. The amount over 50 million EUR is calculated by 16%, and so recognized amounts are multiplied by a factor that can not be lower than 0.5 and which is calculated as the ratio between the sum of winding-up damages in the last three business years, lower with the amount of damages that are receivable from reinsurers and the sum of gross winding-up damages at this time. The threshold also is moved up in the calculation of the required level of solvency margin rate according to the method of damage. Namely, while the Directive in 1973 determined the percentage of 26% which was applied to the amount not exceeding 7 million EUR on average incurred claims in the reference period of three (or seven) previous years and 23% over that amount, the Directive from 2002 determined the limit of 35 million EUR on average incurred claims in the reference period to which amount applies 26%, and of 23% over that amount.¹³

With the adoption of the new rules for the calculation of the solvency requirements of insurance undertakings many changes were made, that had increased the amount of required minimum guarantee fund calculated in the same way as the available solvency of insurance undertakings. The minimum guarantee fund is a lower border (margin) below which the capital value of the insurance undertakings should not fall.

The regulatory requirements relating to the calculation of the capital of insurance undertakings and the mandatory minimum solvency margin, which are contained in two Directives from 2002, has given power to the regulatory (supervisory) authorities of the European Union member states to impose supervision measures if the insurance undertakings break the rules of risk management, and in order of appropriate protection of policy holders. Namely, these two Directives empower regulators to require a plan for overcoming the insolvency in the short and long term from the insurance undertakings. The insurance companies that are faced with the insolvency should establish a better plan for the income and expenditures in the next three years, and they should identify the resources that will finance the required solvency margin.

So, we can conclude that under the current regime of solvency the minimum capital that must maintain the life insurance undertaking, is calculated as a percentage of the technical provisions, while when referring to non-life insurance it is calculated as a percentage of the policy premium. Yet, the fact that there are other risk factors, such as:

¹³ Sandstrom A., (2006), "Solvency – Models, Assessment and Regulation", Chapman & Hall/CRC, Taylor & Francis Group, pp.11-35.

market, credit, liquidity and operational risk, that often are the cause of bankruptcy of insurance companies, and are not fully taken into account in the system of Solvency I, is perhaps the biggest reason for regulatory reform proposed by the European Commission, in the form of the Solvency II Regulation.

Completing the Solvency II revision process implies adopting different levels of rules, of which the highest level is the Solvency II Framework Directive (2009/138/EC) that has been adopted in 2009. The Framework Directive had to be adapted in response to¹⁴:

- new architecture for its implementing measures introduced in the Lisbon Treaty (2009),
- new financial supervision measures introduced in Regulation 1094/2010 establishing the European Insurance and Occupational Pensions Authority.

These changes will be implemented through the Omnibus II directive.

3. “Solvency II” – A system based on three pillars

Solvency II is really an ambitious regulatory project initiated by the European Commission, which has a significant impact on the risks that the insurance undertakings are exposed to, which include¹⁵: the risks from insurance, or determining the premium, reserves, reinsurance and design of the product; market risks (such as: interest rate, exchange rate, price sensitivity of stocks and bonds); credit risk (such as: political risk and rating of the country); liquidity risk (for example: premature failure and natural disaster); operational risks arising from the conduct and performance of activities of human factors, information systems and business processes. It is this new system of measuring the solvency and the capital requirements contained in Solvency II that tends to change insurance undertakings risk management systems. The new framework also aims to create the same playing field for all market participants, harmonization of supervision in the European Union member states, improving the allocation of the capital and increasing the competition in the insurance industry in Europe¹⁶. We can safely say that the new regulatory framework arising from the European Commission is a step that completely follows the development of Basel II - capital requirements related to the banking industry¹⁷.

Solvency II is a system that consists of three pillars, and they are:

(1) The first pillar of Solvency II is called: Quantitative requirements and it primarily focuses on capital requirements for maintaining the solvency. The aim is to encourage the use of internal

¹⁴ European Insurance and Occupational Pensions Authority, (2012), “Preliminary Information on the EIOPA Solvency II DPM and XBRL Taxonomy Framework Architecture”, Version 1, pp.4,5.

¹⁵ Koller M., (2011), “Life Insurance Risk Management Essentials”, EAA Series, Springer, p.6.

¹⁶ Vaughan E.J., Vaughan T., (2007), “Fundamentals of Risk and Insurance”, Tenth Edition, John Wiley & Sons, Inc., 2007. p.649.

¹⁷ Zweifel P., Eisen R., (2012), “Insurance Economics”, 2012, Springer Texts in Business and Economics, Springer, p.345.

models for risk management in the insurance business¹⁸. This concept uses a standard formula to calculate the mandatory solvency capital that reflects the risk profile of most insurance and reinsurance undertakings. The Solvency Capital Requirement (SCR) is calculated at least annually and it should cover at least the following risks, including¹⁹: risk taken by contracts non-life insurance; risk taken by contracts for life insurance; risk taken by contracts for health insurance; market risk; credit risk, and operational Risk (that includes the legal risk).

The Solvency Capital Requirement calculated using the standard formula is a set of core (basic) capital requirements for solvency, capital requirement for operational risk, and the calculated amount that serves as cover (reserve) from unforeseen losses because of insufficient calculated technical provisions and deferred taxes. The basic capital requirement is calculated using a mathematical formula and it is a square root of the sum of product between the capital requirements for different risk components and the correlation factor, and it is represented by the following formula²⁰:

$$\text{Basic SCR} = \sqrt{\sum_{i,j} \text{Corr}_{i,j}} \times \text{SCR}_i \times \text{SCR}_j$$

where:

SCR_i refers to the risk “i”, while SCR_j refers to risk “j”, and where “i,j” means that the sum of various impacts should cover all possible combinations of “i” and “j”. In the calculation, SCR_i and SCR_j are replaced with the following :

- SCR_{non-life} denotes the non-life underwriting risk module;
- SCR_{life} denotes the life underwriting risk module;
- SCR_{health} denotes the health underwriting risk module;
- SCR_{market} denotes the market risk module;
- SCR_{default} denotes the counterparty default risk module.

The correlation factor is calculated for each possible combination of exposure to risks that are in the row “i” and in the column “j” shown in the following matrix of correlation factors²¹:

¹⁸ Baxter Bruce, “Satisfying the Use Test – How to meet and benefit from the Solvency II Use Test requirements”, pp.1-5.

¹⁹ Koller M., (2011), “Life Insurance Risk Management Essentials”, EAA Series, Springer, pp.227-243.

²⁰ Koller M., (2011), “Life Insurance Risk Management Essentials”, EAA Series, Springer, p.238.

²¹ Koller M., (2011), “Life Insurance Risk Management Essentials”, EAA Series, Springer, p.239.

i j	Market	Credit	Life	Health	Non-life
Market	1	0,25	0,25	0,25	0,25
Credit	0,25	1	0,25	0,25	0,5
Life	0,25	0,25	1	0,25	0
Health	0,25	0,25	0,25	1	0
Non-life	0,25	0,5	0	0	1

The insurance and/or reinsurance undertakings should have adequate own resources as a cover for the minimum capital requirement, and they should be regularly monitored. The minimum required capital must not be lower than²²:

- EUR 2.200.000 for non-life insurance undertakings, including insurance undertakings that are part of a group, unless the insurance company carries out the insurance at least in one of the classes of liability insurance, loans and/or guarantees, in which case it shall not be lower than EUR 3.200.000;
- EUR 3.200.000 for life insurance undertakings, including those that are part of a group;
- EUR 3.200.000 for reinsurance undertakings, except in the case of undertakings that are part of a group, in which case the minimum capital requirement must not be lower than EUR 1.000.000; and
- For insurance undertakings that also perform non-life insurance and life insurance, and who meet all the requirements, the minimum capital requirement is the sum of the amounts listed in the first two paragraphs above.

In addition to these amounts, the minimum capital requirements must not be lower than 25% nor higher than 45% of the solvency required capital, that is calculated either using the standard formula, or using the full or partial internal model, including an additional amount of required capital, if such supervisory measures is imposed. If these conditions are met, the minimum capital requirement is calculated as a linear function of all or part of the following variables: technical provisions of an insurance company, premiums written, venture capital, deferred taxes and administrative costs. The used variables are expressed net of reinsurance. The commonly used methods of calculating technical provisions are: reserves for unearned premiums, reserves for claims, reserves for unexpired risks, and other technical reserves and mathematical reserve.²³

Insurance and reinsurance undertakings should calculate the minimum capital requirement at least on a quarterly basis and should report the supervision authority.

(2) The second pillar of Solvency II is called: Procedure for conducting supervision and it concerns with the corporate governance of insurance undertakings and their supervision. The system of corporate governance involves the operation of separate organizational unit of

²² European Parliament and Council Directive 2009/138/EC on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (recast), Official Journal of the European Union 17.12.2009, L335/1., Article 129.

²³ Barrieu P., Albertini L., (2009), "The Handbook of Insurance - Linked Securities". Wiley Finance, pp.341-362.

corporate risk management, organizational unit for monitoring compliance with the insurance regulations in force, an independent organizational unit of the internal audit and actuarial independent organizational unit. These functional units should have the administrative capacity and authority to carry out responsible authorities within the insurance undertaking. The insurance and reinsurance undertakings can determine what kind of organization they will establish, given the nature of the work that is undertaken in terms of the insurance risks, the size of the company, as well as the territory of which they carry on the insurance. Moreover some insurance undertakings are determined to professionals employed in the company, while others opt to transfer these functions to external entities (actuaries). The inadequate corporate governance and failure of internal control systems, were shown as the main causes for the collapse of some major financial institutions, and among them some are among the most insurance companies, such as: HIH in Australia, Northern Rock from the UK, Bear Stearns in USA, Lehman Brothers in USA, AIG from the USA, etc. Hence, an effective system of corporate governance is necessary required for proper operation of the insurance undertakings, maintaining the financial stability of insurance undertakings, and the financial system as a whole.²⁴

Any insurance and reinsurance undertaking must have, as an integral part of its business strategy on a regular basis established monitoring of a solvency in terms of its own specific risk profile (own assessment of risk exposure and solvency). Supervisory authorities exercise their power transparently and responsibly with due consideration for the protection of confidential information. This implies the existence of a system that provides publication of at least the following information: texts of all laws, regulations, general provisions and rules and guidelines in the field of insurance regulation; common general criteria and methods used by supervisors in their work; aggregated statistics for main aspects of the application of prudential regulation; if supervision interpreted certain rules - mandatory disclosure of their conduct; purposes of supervision and their basic functions and activities.²⁵ This disclosure of information should be sufficiently clear to enable meaningful comparison between different countries. For this purpose standardized formats should be used and they will be regularly updated. The access to them should be at any time provided electronically. It is also very important that the countries should establish transparent procedures for the selection and dismissal of members of the management and the management of the supervisory authorities.²⁶

²⁴ Policy Issues in Insurance, (2011), "The Impact of the Financial Crisis on the Insurance Sector and Policy Responses", OECD No.13., pp.1-48.

²⁵ European Parliament and Council Directive 2009/138/EC on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (recast), Official Journal of the European Union 17.12.2009, L335/1., Article 31.

²⁶ European Commission, (2010), "Solvency II: Frequently Asked Questions (FAQs)", pp.1-13.

Supervisory authorities should carry out controls and they should assess compliance in at least the following areas²⁷:

- Systems management, particularly in terms of doing their own risk assessment and analysis of solvency in terms of the application of the standard formula;

- The state of technical provisions;

- Maintaining the value of the minimum capital;

- The rules for investing;

- The quality and quantity of own funds;

- If the insurance undertaking uses a full or partial internal model, there should be at all times comply with the requirements that are related to the use of internal models.

Insurance and reinsurance undertakings should have procedures in place to identify deteriorating financial conditions and they shall immediately inform the supervisory authorities, if there are such worsening financial conditions: non-compliance with the technical provisions, non-compliance with the solvency capital requirement, non-compliance with minimum capital requirements, and deteriorating financial situation. The supervisory authorities should adopt a plan for financial consolidation and short-term plan to provide funding or to revoke the license for carrying out the insurance or reinsurance undertaking.²⁸

Given the increasing cross-border links between the performance of insurance operations, and the latest trends in development of the supervision of insurance, it should be expected that the supervisory authorities of the insurance or reinsurance undertakings in the European Union member states shall exercise their right to delegate site supervision on the supervisory authorities in the European Union member states where the entities are located and where they perform functions transferred by the undertakings.

(3) The third pillar of Solvency II is called: Market discipline or minimum requirements for publication of comprehensive, relevant, reliable and complete information by the insurance and reinsurance undertakings, which in turn will help the decision makers and will reduce disparities in information that exist between the owners of capital - managers as well as between insurance undertakings - insurers and insurance customers. The regulatory framework that applies to reporting supervisory purposes includes one set of laws, standards, and regulations, which require insurance undertakings to report to the supervisory authority in the country where the head of the undertaking is based, and this report is for: calculation of capital; required margin of solvency, the technical provisions for certain classes of insurance and total; investment of assets covering technical provisions; and the calculation and monitoring of certain technical coefficients for the performance of core (basic) business – that is insurance. These regulations should allow insurance and reinsurance undertaking and supervisors timely disclosure of the potential risks of possible losses in

²⁷ European Parliament and Council Directive 2009/138/EC on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (recast), Official Journal of the European Union 17.12.2009, L335/1., Article 36.

²⁸ Policy Issues in Insurance, (2011), “The Impact of the Financial Crisis on the Insurance Sector and Policy Responses”, OECD No.13., pp.55-58.

certain classes of insurance which could jeopardize the solvency at a time, and this data are confidential, they are not published, and a small circle of institutions can use them.²⁹

The framework of information concerning the reporting of public for their operation is adopted by the International Board for Accounting Standards, which is an international professional body of chartered accountants, and includes: International Accounting Standards, International Financial Reporting Standards and interpretations of standards by the Board. This Regulation prescribes the form and the content of financial statements of insurance undertakings, under which the insurance and reinsurance undertakings should disclose the information about: assets, liabilities, equity, revenues and expenses, in a way that would be understandable, relevant, reliable, comparable, complete and consistent in different periods.

Although the reporting for supervisory purposes is of particular importance for the functioning of Solvency II, however the reporting framework for supervisory purposes has not yet been harmonized between the European Union member states.

4. Conclusion

From the all above mentioned in this paper, we can conclude that the Solvency II framework represents a mirror of the concept of Basel II. Solvency II is a three-pillar system that can be summarized and presents as the following³⁰:

The First Pillar Quantitative requirements	The Second Pillar The Supervision Procedure	The Third Pillar Market Discipline
The minimum capital	The corporate governance and the internal control	The reporting of supervision
Solvency margin Standard formula Internal models	The supervision procedures Supervisory authority	The reporting to the public
Risk exposure Allocation of risks	Security measures Control of solvency	
Technical provisions	Functionally risk management Managing assets and liabilities	
Tangible, measurable risks: Insurance risks; Market risk; Credit risk; Operational risk; Liquidity risk; Risk from	All risks	

²⁹ European Parliament and Council Directive 2009/138/EC on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (recast), Official Journal of the European Union 17.12.2009, L335/1., Articles 51-56.

³⁰ KPMG, (2011), "Solvency II", p.6.

management of assets and liabilities; and Other risks		
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The introduction of the new insurance supervisory standards for the calculation of the capital and minimum capital, required for maintaining the solvency (named Solvency II) in the European Union's member-states and in candidate states, is expected to improve the efficiency in the allocation of capital, financial stability and transparency in insurance and reinsurance undertakings.

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