Solvency II, the European insurance regulation based on risks

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ABSTRACT

Solvency II, the new European legislation in the insurance sector, represents a new framework that will assist in the better understanding of the risks facing the insurance sector as a whole, in a world which is becoming ever-more complex and globalized, and with larger and interconnected risks. Based on the new regulation background, implications and developments, this paper analyzes the most important financial requirements, the novel monitoring process and the market transparency new requirements. The paper contains an assessment and comparison with previous monitoring system, and presents the possible evolution of the new rules in the next future.

Keywords: European Financial Regulation, Risk Management, Insurance, Solvency II.

JEL Classification: G22.

RESUMEN

Solvencia II, la nueva legislación del sector de seguros dentro de la Unión Europea, representa un nuevo marco que ayudará a comprender mejor los riesgos en su conjunto, en un mundo cada vez más complejo y globalizado y con unos riesgos mayores e interconectados. Partiendo de los antecedentes, implicaciones y novedades de la nueva regulación, el presente trabajo analiza las exigencias financieras más relevantes y el nuevo proceso de vigilancia y de transparencia de mercado. Se incluye una valoración y comparación con el sistema de supervisión previo, y se presenta la posible evolución de la nueva normativa en el futuro próximo.

Palabras Clave: Regulación Financiera Europea, Gestión de Riesgos, Seguros, Solvencia II.

Clasificación JEL: G22.

1. INTRODUCTION

The text studies Directive 2009/138/EC of the European Parliament and of the Council, of 25 November 2009, on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), concentrating on its structure and scope with regard to its three pillars: financial requirements, supervision system, and transparency and consumer protection.

It outlines the new private insurance regulations, with reference to the proposal of the Commission COM (2007)361 (proposed Solvency II Directive) which was approved on 10 July 2007, along with their background, innovations and the possible evolution of future solvency legislation, Solvency III, in order to understand the different possibilities that the configuration of this new system of insurance regulation provides.

2. BACKGROUND AND INNOVATIONS OF SOLVENCY II

In general terms, Solvency II improves the procedures for controlling risks in the insurance sector, allowing undertakings to improve the quality of own-fund management and increase consumer protection, given that their main objective is consumer protection. The main limitations of the current solvency system (Solvency I) – based on assets, technical provisions, and solvency margin – are the narrow margin of risks considered and the pressure of the capital requirements with regard to the specific risk profiles of the insurance undertakings.

Furthermore, the Basel II regulatory framework has served as a reference point throughout the entire process of drafting Solvency II, first as an incentive for updating the regulation of the insurance sector, and second as a requirement in order to provide a similar regulatory response to similar risks. In respect of corporate governance, the so-called COSO II Report is serving as a model for the implementation of internal control within European insurance undertakings, which will allow supervisory bodies to ensure that their criteria in matters of risk management are strictly applied and that greater confidence is placed in the managers and the internal-control and corporate-governance policies implemented at the insurance undertakings.

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CLASSIFICATION OF RISKS ACCORDING TO CLASSES OF INSURANCE	
A. Classes of non-life insurance	B. Classes of life insurance
1. Accident 2. Sickness 3. Land vehicles 4. Railway rolling stock 5. Aircraft 6. Ships 7. Goods in transit 8. Fire and natural forces 9. Other damage to property 10. Motor vehicle liability 11. Aircraft liability 12. Liability for ships 13. General liability 14. Credit 15. Suretyship 16. Miscellaneous financial loss 17. Legal expenses 18. Assistance	I. Life insurance which comprises assurance on survival to a stipulated age only, assurance on death only, assurance on survival to a stipulated age or on earlier death, life as surance with return of premiums II. Marriage assurance, birth assurance III. Life insurance which are linked to investment funds IV. Permanent health insurance V. Tontines VI. Capital redemption operations VII. Management of group pension funds

Source: Annexes I and II of Directive 2009/138/EC, SolvencyII.

In accordance with the latest advances in matters of risk management and actuarial science, and with the recent evolution of other financial sectors, it is coherent for Solvency II to adopt an approach based on economic risk, encouraging accurate evaluation and risk management by insurance and reinsurance undertakings. The innovations envisaged in the Solvency II Directive (published on 25 November 2009 in the Official Journal of the European Union) with the greatest significance and impact on the insurance sector refer in the main to the management of the different risks, the solvency capital requirements, and the establishment of supervision criteria.

With regard to the compulsory solvency capital requirements (Hernández Barros, 2009), the economic capital shall be estimated based on the risk profile of each undertaking, taking into account its particular techniques for mitigating and diversifying risk. As an alternative to calculating the capital in accordance with the standard formula, in order to calculate the compulsory solvency capital that guarantees a minimum level below which financial resources should not fall, provision is also made for the use of complex or partial internal models, under specific conditions and with the prior approval of the supervisor, thereby allowing insurers to cut their capital requirements. For those undertakings that belong to a group, it is also envisaged that they should hold sufficient own funds to cover the compulsory solvency capital, thereby reflecting their exposure to risks.

In order to conclude this part, it is agreed in the financial industry that a common legal framework should be set up that would allow the insurance activity to be performed throughout the internal market, which has at last seen the light of day, and which must be transposed into the respective laws of the Member States prior to 31 October 2012.

3. SOLVENCY, THE NEW REGULATION BASED ON RISKS

All legislative initiatives aimed at improving the current rules on the valuation of the overall financial situation of insurance undertakings are grouped under the name Solvency II , a new regulation philosophy that consists in the possibility of requiring each company to evaluate and examine its exposure to the various risks that it has taken on, the level of management of the said risks, the effect of its strategies and business, and as a result of all of the foregoing, to determine the amount of own funds that it needs to hold in order to perform the activity in a sustainable way.

The scope of Solvency II extends to direct life, non-life, and reinsurance undertakings established in the European Union. Insurance and reinsurance undertakings that meet certain conditions are excluded from the scope of application of the new regulations, such as a minimum volume of their revenues and/or technical provisions, the performance of certain insurance operations such as assistance activities, or certain life and non-life bodies and undertakings.

a. Gross income from premiums less than 5 million Euros.
b. Technical provisions of the undertaking or the group less than 25 million Euros.
c. Assistance activities where certain conditions are met.
d. Non-life mutual undertakings that assign their contracts in full by way of reinsurance agreements.
e. Certain life and non-life bodies and undertakings, such as the Consorcio de Compensación de Seguros in Spain.
f. Reinsurance activities performed by the Government of a Member State acting as reinsurer of last resort.

The relevant dates in the implementation of Solvency II are the Quantitative Impact Studies (QIS), the discussion by the Council and the European Parliament, its publication (November 2009) and the entry into force (October 2010).

We now examine the structure and scope of the three pillars of the Solvency II regulations: requirements of a financial nature, supervision system and market transparency.

3.1. Financial requirements

Solvency II sets down and develops the requirements of a financial nature, which must be tailored to the actual particular level of risks borne by each undertaking in accordance with the transactions performed, and it shall be calculated in accordance with a risk-based approach, and when the capital drops below this level, the intervention of the supervisor shall be required.

The Solvency Capital Requirement (SCR) is the level of capital that allows an undertaking to absorb significant and unforeseen losses, and so in order to calculate it one must take into account the actual level of exposure to the different types of risks arising from the activities of the undertaking, in accordance with a specified probability of default and a specified time period. It shall be calculated annually and shall be equal to the value at risk of the basic own-funds, with a confidence level of 99.5%, over a one-year period . The Solvency Capital Requirement shall take into account, as a minimum, the life, non-life, and health underwriting risk, the market risk, the credit risk, and the operational risk, which shall include legal risks, but not risks arising from strategic decisions or reputation risks. This Solvency Capital Requirement (SCR) may be calculated in accordance with the standard formula or complete or partial internal models, and it would equal the sum of the basic SCR, the SCR for operational risk, and certain adjustments to the technical provisions and deferred taxes.

Solvency II also allows the possibility of using, in specific circumstances, complete or partial internal models of the risk modules for the calculation of the SCR, as an alternative to the standard formula. The internal model, and in particular, the calculation of the probability distributions, are based on suitable actuarial and statistical techniques, on up-to-date and reliable information, and on realistic hypotheses. Insurers and reinsurers must show that their internal model is used and that it performs an important function in its good governance, its risk-management system, and its processes for evaluating and assigning its economic and solvency capital, with the authorities placing special emphasis on ensuring that its design and functioning are always adequate and represent a true reflection of its risk profiles.

In particular, with regard to solvency within groups, the calculation of the solvency at a group level may be carried out by way of the following methods:

a. Method 1, calculated on the basis of the consolidated accounts, either in accordance with the standard formula, or with an internal model approved by the supervisor;

b. Method 2, deduction and aggregation of the solvency capital of the group, where the supervisor of the group deems this appropriate, after consulting with the other supervisory authorities affected and the group itself;
c. Or a combination of the above methods where method 1 is not appropriate.

In contrast, the minimum capital requirement (MCR) represents the level of capital below which the supervisor is required to implement special measures in order to ensure the solvency of the undertaking. In any event, in order to estimate both SCR and MCR levels, it is necessary to take into account the structure and valuation of the insurers' assets and liabilities, including the technical provisions and the risk-management system.

The valuation standards established by each Member State shall be, in so far as possible, compatible with international accounting developments, so as to limit the administrative burden placed on undertakings in the sector. Assets shall be valued at the amount for which they could be exchanged between knowledgeable willing parties in an arm's length transaction, and liabilities shall be valued at the amount for which they could be transferred, or settled, between knowledgeable willing parties in an arm's length transaction. And in particular with regard to technical provisions, their value should correspond to the amount an insurance or reinsurance undertaking would have to pay if it transferred its contractual rights and obligations immediately to another undertaking, and which shall be equal to the sum of a best estimate and a risk margin; with the best estimate being the probability-weighted average of future cash-flows, taking account of the time value of money.

Own funds shall comprise the sum of basic own funds and ancillary own funds . The former shall be composed of the excess of assets over liabilities, and subordinated liabilities. And ancillary own funds shall be composed of unpaid share capital or initial fund that has not been called up, letters of credit and guarantees, and any other legally binding commitments received by insurance and reinsurance undertakings. Furthermore, own-fund items shall be classified into three tiers: basic own-fund items shall be classified in tier 1 where they have permanent availability, and in the event of winding-up, they are subordinate to the duties of the insurance contract; basic own-fund items shall be classified in tier 2 where, in the event of winding-up, they are subordinate to the duties of the insurance contract; and ancillary own-fund items shall be classified in tier 2 where they have permanent availability, and in the event of winding-up, they are subordinate to the duties of the insurance contract; all other basic and ancillary own-fund items shall be classified in tier 3. In respect of compliance with the SCR, the eligible amounts corresponding to tier 2 and tier 3 items shall be subject to quantitative limits guaranteeing a proportion of the tier 1 items with regard to eligible own funds. For the MCR, the limits are subject to tier 2 of the own funds.

In respect to the whole portfolio of assets, insurance and reinsurance undertakings shall only invest in assets and instruments in which the risks can be properly identified, monitored, and controlled.

All assets, in particular those covering the SCR and the MCR, shall be invested in such a manner as to ensure the security, quality, liquidity, and profitability of the portfolio as a whole. Furthermore, assets held to cover the technical provisions shall also be invested in a manner appropriate to the nature and duration of the insurance and reinsurance liabilities, in the best interest of all policyholders and beneficiaries. In particular, the market risk module of the standard formula for the Solvency Capital Requirement should include a symmetric adjustment mechanism with respect to changes in the level of equity prices.

Thus, despite the exhaustive synthesis and effort that Solvency II has entailed in order to impose European standardization on the financial requirements, the reality of the sector should not be overlooked: the diversity in the size, nature, and complexity of European insurers, as well as the discrepancies that still exist between the rules of the Member States, will complicate the implementation of a single solvency system for the insurance sector in the European Union.

3.2. The supervision system

Internal solvency-level control at undertakings and groups is based on systems and internal models which, after being approved by the supervisor, favour active risk management. Furthermore, insurance undertakings must set up adequate monitoring systems in order to ensure the efficiency and effectiveness of their internal control, in conjunction with independent periodical assessments, and by way of adopting adequate systems, resources, and procedures in order to safeguard the continuity of their activities.

But some risks escape the quantitative requirements of the solvency capital requirements and can only be managed and mitigated correctly through requirements concerning good system of governance, and which should include the following functions:

a. Risk management (and the information systems necessary in order to continuously examine and monitor the said risks), internal evaluation of the said risks, solvency, and the internal models that have been used;

b. The internal audit function, which shall include an objective and independent evaluation of the adequacy and effectiveness of the internal control system and other elements of the system of governance; and
c. The actuarial function, which shall evaluate the technical provisions and the adequacy of the methodologies used, or express an opinion on the general policy on reinsurance arrangements.

The supervision activities shall consist in the verification of the solvency situation, the establishment of technical provisions, of its assets and the eligible own funds, in accordance with the established rules, but in a manner that is in proportion to the nature, volume, and complexity of the risks inherent to the activity of the undertaking, especially a small one. Furthermore, the supervisory authorities must consider the possible effects of their decisions on the stability of the financial systems of the Member States and on the economy as a whole.

The financial supervision of insurance and reinsurance undertakings, including that of the business they pursue either through branches or under the freedom to provide services, shall be the sole responsibility of the home Member State, which may even carry out on-site verification of the information necessary in order to perform the financial supervision of the undertaking in the case of a branch, after first notifying the branch supervisor.

Solvency II entails a new monitoring model for the supervision of groups, in which a key role is assigned to the group supervisor, responsible for the co-ordination and the exercise of the supervision of the group, whilst at the same time recognizing and maintaining a key role for the individual supervisor, combining the powers and duties of the supervisors with their respective responsibilities.

3.3. Market transparency

The transparency system of Solvency II will require insurers to inform the market, increasing the disclosure of information, so that market agents and consumers may evaluate the levels of risk taken on by each insurer, which will improve decision-making processes and will serve to encourage insurers to maintain adequate solvency levels.

In particular, the Member States will require insurance and reinsurance undertakings to publish, once a year, a report on their financial situation and solvency, which should contain the information, set forth below, notwithstanding the possibility of their being able to publish even more information on a voluntary basis:

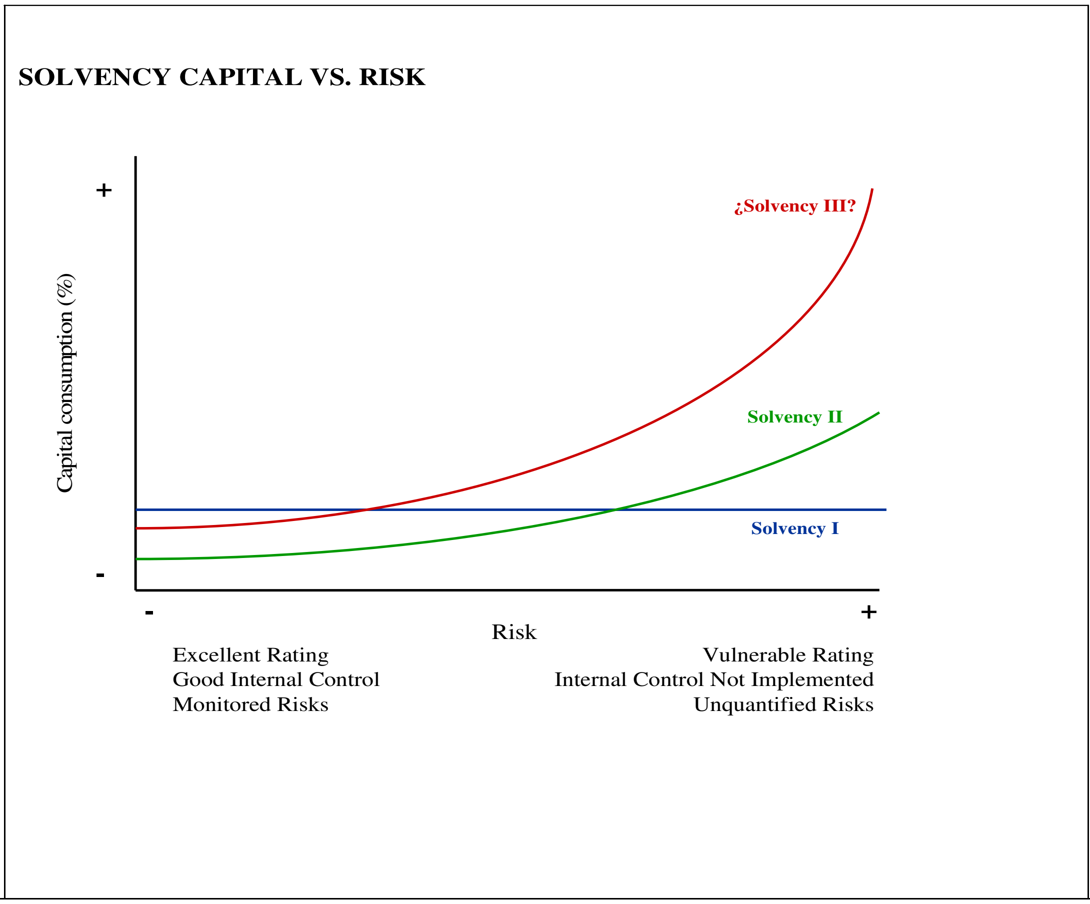
a. Business and performance of the undertaking;
b. System of governance and its adequacy for the risk profile of the undertaking;
c. The risk exposure, concentration, mitigation, and sensitivity for each category of risk;
d. The bases and methods used for the valuation of the assets, technical provisions, and other liabilities;
e. The capital management, with a description of the structure and amount of own funds, the amount of the Solvency Capital Requirement and the Minimum Capital Requirement, and the option used for the calculation of the Solvency Capital Requirement.

The consolidation of a single financial market has required the standardization of the criteria used to measure the solvency level of financial institutions in general and of insurers in particular, as well as the implementation of similar approaches within all sub-sectors of the financial sector. For this reason, the supervisory authorities must promote the disclosure of information within their scope of activity, such as the legal texts or the supervision criteria, and facilitating the exchange of information with other supervisors and bodies that limit the administrative burden and avoid the duplication of tasks, both inside and outside the European Union.

4. CONCLUSIONS

Having examined the new norm , it background, and its possible future evolution, it is reasonable to conclude that Solvency II represents one more step towards the convergence of regulation and the economic measures of risk. There was already a sense that more-advanced legislation was needed for the regulation of solvency and internal control, so we consider very positive the benefits of the contributions made by the new Directive to risk management, to the stability of the financial system, and to consumer protection, but we should not overlook that there is still some way to go towards improvement and that the risk corresponds to the future, which is inherently uncertain, and that the systems of corporate risk management are never going to provide us with absolute certainty and security.

However, and although it may seem a little precipitate to refer now to Solvency III (given that Solvency II comes into force in October 2012), it would be unwise not to do so, given that from the perspective of risk management, one can envisage a host of possibilities and aspects to be developed in this new Directive. With regard to financial requirements, the trend towards penalizing those undertakings with the highest risks or those that do not employ good internal control or corporate governance practices will need to continue.



Source: Compiled by the authors

In the previous graph, it may be seen that the regulation of Solvency I, which is currently in force in the European Union, does not discriminate between high or low risks, complex or simple products, suitable or risky investments, and thus insurers are maintaining a solvency capital that is more or less stable, irrespective of the kinds of projects and investments on which they embark.

Solvency II has sought to correct, to our understanding, the relationship between the risks and the minimum capital that bears them , but it is possible to envisage that this will become insufficient, and that the regulations should require undertakings to have a much more pronounced curve that adequately "remunerates" the assumption of risks by insurers (see graph). The graph shows, under the Solvency III curve, that if there is a desire to take on greater risks, this is allowed, but by way of increasing the regulatory capital requirements, and not by way of a possible contribution of public funds in a hypothetical situation of solvency problems.

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[6] SCR: Solvency Capital Requirement.

[7] The probability of default is a measure of the stability and security system of the insurance undertaking, which sets out the basic figures for solvency reserves, the security surcharge, and the reinsurance.

[8] Articles 103 to 127 of Directive 2009/138/EC, Solvency II.

[9] The value at risk (VaR) is a universally-accepted financial methodology for a large variety of risk categories and lines of business, and is defined as the maximum possible loss, in terms of market value, within a period of time and for a certain level of probability.

[10] Articles 100 to 102 of Directive 2009/138/EC, Solvency II.

[11] Articles 218 to 243 of Directive 2009/138/EC, Solvency II.

[12] MCR: Minimum Capital Requirement.

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