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A Comparative Study Between Solvency II and theSolvency System of Insurance Companies in Algeria

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Abstract:

The aim of this study is to determine whether there is a difference between Solvency IIand the solvency system of insurance companies in Algeria.Through this study, we concludedthat there are several differences between the two studied solvency systems. The Solvency II system of insurance companies in the European Union focuses on the three key pillars: Quantitative requirements, qualitative requirements and disclosure and transparency requirements.On the other hand, the Algerian solvency system focuses on the quantitative requirements (Minimum Capital Requirement, Solvency Capital Requirement, Investment…etc.)over other aspects.

Keywords: Insurance companies; Solvency II; Algeriansolvency system; Minimum Capital Requirement; Solvency Capital Requirement.

JEL classification :G3; G22; P51.

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دراسة مقارنة بين الملاءة 2 ونظام الملاءة لشركات التأمين في الجزائر

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الملخص:

الهدف من هذه الدراسة هو معرفة ما إذا كان هناك فرق بينالملاءة 2 ونظام الملاءة لشركات التأمين في الجزائر.ولقد تم التوصل من خلال هذه الدراسةإلى وجود العديد من الاختلافات بيننظامي الملاءة المالية محل الدراسة، حيث أن نظام الملاءة 2 لشركات التأمين في الإتحاد الأوروبي يركزعلى ثلاثة ركائز أساسية هي: المتطلبات الكمية، المتطلبات النوعية ومتطلبات الإفصاح والشفافية، في حين يركز نظام الملاءةلشركات التأمين في الجزائر على المتطلبات الكمية (متطلبات الحد الأدنى لرأس المال، رأس المال المطلوب للملاءة، الاستثمار...الخ.)، وبذلك فإنه لم يركز بشكل كبير على المتطلبات الأخرى.

كلمات مفتاحية:شركات التأمين؛ الملاءة 2؛ نظام الملاءةفي الجزائر؛متطلبات الحد الأدنى لرأس المال؛ رأس المال المطلوب للملاءة.

تصنيف (JEL): G3، G22، P51.

1. Introduction:

The insurance industry is not considered as a new sector, it has existed for many years and has evolved with the changes in society and the exposure to risks.

To protect policyholders, the insurance industry exists due to the insurance companies who provide insurance services, these insurance companies are known by their strength and ability to bearrisks in exchange for insurance premium paid by the insured, and they provide compensation in the event of claims.

Like other activities, the insurance industry is subject to heavy regulation. Due to the insurance companies' exposure to numerous risks, the government imposes various rules to protect policyholders and safeguard their interests. It is essential to ensure that these insurance companies remain solvent and capable of fulfilling their commitments by reimbursing claims as they arise.

It is for these purposes that the first European Solvency I prudential system was established in 1980, which setminimum solvency margin requirements. However, over time, it was subject to criticism, leading to the introduction of the Solvency II reform in 2016.This new system aims to correct the weaknesses of the previous one by enhancing the protection of policyholders and placing greater importance on risk management.

Like many other countries around the world, Algeria is no exception. The government has takenSolvency II system into consideration and implemented rules and regulations to strengthen the Algerian insurance companies. The primary objectives are to protect the policyholders and foster the development of the insurance sector in the country.

Problematic:

From this introduction above, we can ask the problematic question as following:

Is there a difference betweenSolvency II and thesolvency system of insurance companies in Algeria?

Sub-questions:

To answer this principal question, we can divide it into the following sub-questions:

- What are the pillarsof Solvency II?
- What are the solvency requirements of insurance companies in Algeria?
- What are the differences between Solvency II and the solvency system for insurance companies in Algeria?

Hypothesis:

To answer the problematic principal question and the sub-questions, we formulate the hypothesis as following: There is a difference between Solvency IIand the solvency system of insurance companies in Algeria.

Study Plan:

To answer the problematic question, we divided our research into three main parts:

- Part 01: Generalities about Solvency II.
- Part 02: Solvency system of insurance companies in Algeria.
- Part 03: Comparison between Solvency II and the solvency system of insurance companies in Algeria.

Study Objectives:

The objectives of our study are:

- To clarify the term Solvency II, itsobjectives, and pillars;
- To provide a clear idea of the solvency system of insurance companies in Algeria;
- To knowif there is a difference betweenSolvency IIand thesolvency system of insurance companies in Algeria.

Study Importance:

Our study aims to present the concept of Solvency II and thesolvency system of insurance companies in Algeria in order to compare the two regulatory frameworks to identify any potential differences.

Study Approach:

In this study, the descriptive approach was used to present and analyze all the information related to the theoretical aspect of the study, primarily focusing on Solvency II, as well as the solvency system of insurance companies in Algeria.In addition, the comparative approach was used to highlight the various similarities and differences between these systems.

2. Generalities About Solvency II:

In this first part, we are going to present details aboutSolvencyII,starting with the definition, the main objectives, then the presentation of Solvency II pillars.

2.1.Definition of Solvency II:

The International Association of Insurance Supervisors has specified that solvency in general is the financial soundness of an insurer including the ability to meet its obligations to policyholders when they fall due. Solvency includes capital adequacy, liquidity, technical provisions, and other aspects addressed in an entreprise risk management framework (IAIS, 2022).

According to the European Commission, Solvency II can be defined as a regime that introduces for the first time a harmonised, sound and robust prudential framework for insurance firms in the European Union (EU). It is based on the risk profile of each individual insurance company in order to promote comparability, transparency and competitiveness(European Commission, 2015, p. 01).

From the two previous definitions, we can say that Solvency presents the solidity and the strength of an insurance company that will allow it to be solvent and capable to honor their commitments towards policyholders. The Solvency II system was born to ensure that by setting up new requirements and parameters.

2.2.Solvency II Objectives:

As a new regime that modified the previous one, Solvency II objectives can be presented as following(Aurélien, 2011, p. 13):

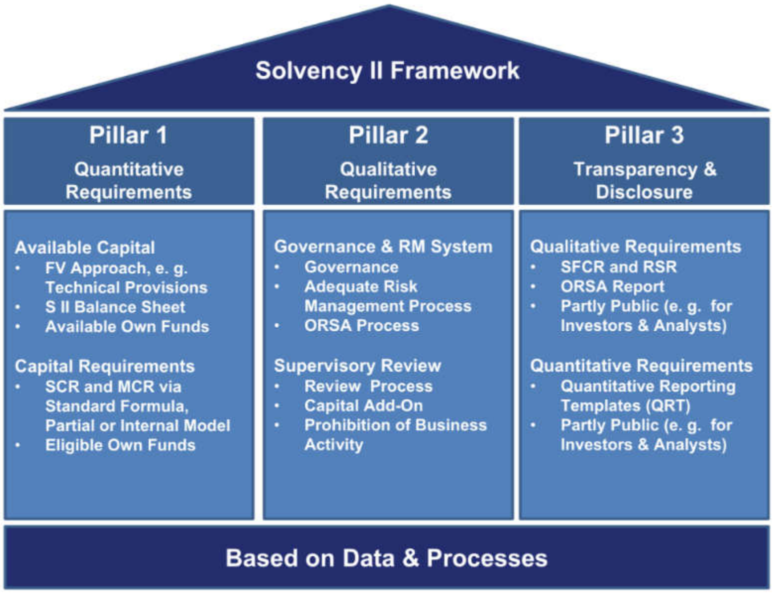
- Establish better assessment rules for the solvency of insurance companies to reduce the risk of bankruptcy and thereby ensure the protection of the rights of policyholders and all relevant parties;
- Improving the quality of insurance products offered to policyholders, as well as protecting them by enhancing the solvency of insurance companies;
- Providing the regulatory and supervisory authorities with sufficient information in a transparent manner in order to facilitate the process of monitoring insurance companies;
- Equipping auditors and supervisors in the insurance sector with adequate tools to strengthen their supervisory functions;
- Enhancing integration in the European insurance market to improve competition conditions for local companies and enhance their international competitiveness;
- Motivate insurance companies to improve their perceptions and manage their risks by participating in the assessment of financial solvency (Government, internal control and risk management);
- Ensuring a balanced application among the European Union countries, and strengthening the participation and the cooperation between the various solvency control systems of other countries.

It’s clear that the main objectives of the Solvency II system are:Strengthening control and supervision of insurance companies to maintain financial stability, strengthening risk management and enhancing the financial solvency of insurance companies to protect them from bankruptcy and achieving integration in European insurance market.

2.3.Solvency II Pillars:

The Solvency II regime contains three main pillars as the following scheme presents:

Figure 1. Overview of the three Solvency II pillars.



Source : (Maria et al., 2018, p. 02).

➢ **Pillar 1: Quantitative Requirements:**

This first pillar presents the main quantitative rules to measure the solvency margin that the insurance companies are obliged to maintain, it contains:

- **Valuation of Assets and Liabilities:**

Unlike the solvency 1 systemwhich was based on historical cost, the valuation operation of assets and liabilities with Solvency IIis based on the economic valuation of balance sheet items (Claire & Aurélie, 2009, p. 165).In the other tems, market value of assets, liabilities and equity in a specific date.

- **Valuation of Technical Provisions:**

As the previous point, the technical provisions, which represent commitments towards policyholders, are evaluated consistently with the market (Market value), they can be calculated by combining two components(Livre Blanc, 2016, p. 27):

- **Best Estimate:** The best valuation of future cash flows;
- **Risk Margin:**The margin that takes into account the uncertainties of the best estmate.

- **Solvency Margin:**

There are two levels of private funds which present the solvency margin(Martin et al., 2009, p. 15):

- **Minimum Capital Requirement (MCR):**A minimum amount of equity capital that an insurer must hold;
- **Solvency Capital Requirement (SCR):**Also called “Target capital”, which is intended to represent the economic capital the insurance compagny needs to run its business within a given safety level, it covers all relevant risk categories that is, insurance, market, credit, and operational risk.

- **Investment:**

The solvency system did not specify the nature of investments but rather allowed the insurance company the freedom to choose appropriate investment formulas. However, these investments must be managed with ease, in addition to ensuring quality, liquidity, safety, and profitability of the asset portfolio, through the calculation of the required capital for solvency(Claire & Aurélie, 2009, p. 165).

- **Pillar 2: Qualitative Requirements:**

The second pillar presents the qualitative side, it focuses on the good management of the company from both an administrative perspective andin terms of internal control and risk management. Its main objective is to provide supervisory authorities with the means to identify companies with significant financial or organizational risks. In such cases, they must have the ability to increase capital requirements or apply targeted measures to mitigate risks (Daniel & David, 2008, p. 18).

Likewise, every insurance compagny should have a formalized system of gouvernance, meaning that the policies and guidelines of important operational areas are documented, approuved by the board and utilized in the organization (Tord, 2014, p. 22).

- **Pillar 3: Transparency and Disclosure:**

The Pillar 3 of the Solvency II Directive focuses on market discipline and the prudential disclosures intended for analysts and shareholders (Philippe & Patrick, 2017, p. 247).

The directive aims through this third pillar to strengthen the principle of transparency, according to that, insurance company must (Caroline, 2013, p. 21):

- Provide a confidential report to the supervisory authority on the solvency and risk management of the company, it must be comprehensive and provide an accurate representation of the company's status;
- Additionally, a public reporting is required annually, presenting essential information about the company's financial situation and solvency.

These qualitative reports are two in number: the Regular Supervisory Report (RSR) intended for the supervisory authority, and the Solvency and Financial Condition Report (SFCR) intended for the public.

With regard to the information contained in the report intended for the supervisory authority, we can cite (Gaurang, 2010, p. 16):

- The system of governance applied;
- The business of the compagny, the risks the compagny faces and the risk management system, the valuation principles applied;
- The capital structure, needs and management.

About the information contained in the report intended for the public, we can cite (Gaurang, 2010, p. 16):

- The business and its performance;
- The system of governance, risk exposures, concentrations, mitigations and sensitivities, the valuation bases and methods applied for solvency purposes;
- A description of capital management, covering the structure, amount and quality of own funds, the amounts of the MCR and SCR as well as details of any noncompliance;
- Separate disclosure of any capital add-on with its justification from the supervisor is also required.

3. Solvency System of Insurance Companies in Algeria:

In this second part, we are going to present details about the solvency system of insurance companies in Algeria, starting with themain quantitative requirements, qualitative requirements, transparency and disclosure requirements then comparing it with Solvency II.

3.1. Algerian Solvency Requirements:

Thesolvency system of insurance companies in Algeriaconsists of several elements that can be mentioned as follows:

- **Minimum Capital Requirement:**

The Algerian legislator imposes on insurance and reinsurance companies a minimum amount of capital to carry out the activity according to the second and the third articles(Executive Decree N°09-375, 2009, pp. 06 - 07):

- A billion dinars for joint-stock companies engaged in life insurance and capitalization operations;
- Two billion dinars for joint-stock companies engaged in property insurance operations;

- Five billion dinars for joint-stock companies exclusively engaged in reinsurance operations;
- Six hundred million dinars for mutuals engaged in life insurance and capitalization operations;
- A billion dinars for mutuals engaged in property insurance operations.

- **Regulated CommitmentsElaboration:**

Insurance companies must create and register in the liabilities side of the balance sheet the regulated commitments which consist two parts:

- **Regulated Provisions:**

They aim to enhance the ability of insurance companies to fulfill their obligations, we distinguishtwo types according to article 3 until article 9 (Executive Decree N°13-114, 2013, pp. 5 - 6):

- **Deductible RegulatedProvisions:**Which are the guarantee provision, provision for compulsory additional to provisions for claims to be paid, provision for catastrophic risks and provision for liability risks for regulated commitments;
- **Non-Deductible Regulated Provisions:** Any other provision established by the insurance compagny.

- **Technical Provisions:**

Technical provisions are funds intended for the full settlement of commitments made, we distinguish two types according to article 10 until article 22 (Executive Decree N°13-114, 2013, pp. 6 - 8):

- **Technical Provisions in Life Insurance and Capitalization:**Which are equalization provision, provision for claims to be paid, mathematical provisions, provision for participation in technical and financial profits and provision for unearned premiums;
- **Technical Provisions in Property Insurance:**Which are balancing provision, equalization provision, provision for unearned premiums, provision for claims to be paid in damage insurance and car branch, provision for profit sharing and refunds.

It should be noted that in the Algerian system, the assets, liabilities and the regulated commitments are evaluated with the historical cost instead of the market valueby applying rules provided by the current law.

- **Regulated Commitments Representation:**

According to the same legislation (Article 24), the regulated commitments that we have presented above must be represented by items on the assets side of the balance sheet as follows (Executive Decree N°13-114, 2013, p. 9):

- **State Securities:**

Such as treasury bonds, deposits with the treasury, securities issued by the state or guaranteed by it (Which should not be less than 50%);

- **Other Marketable Securities:**

Such as securities and bonds issued by insurance or reinsurance companies and other financial institutions authorized in Algeria, securities and bonds issued, under government agreements, by insurance or reinsurance companies not established in Algeria and finaly securities and bonds issued by Algerian economic enterprises;

- **Real Estate Assets:**

Such as built properties and land owned in Algeria and other real estate rights in Algeria;

- **Other Investments:**

Such as money market, deposits with sellers, time deposits with banks, and any other type of investment specified by current legislation and regulations.

- **Solvency Margin:**

According to the international changes regarding financial solvency and after the separation between property insurance and life insurance, which came into effect in 2011, the rules of financial solvency margin were amended in Articles 2 and 3 as follows (Executive Decree N°13-115, 2013, pp. 9 - 10):

The solvency of insurance and/or reinsurance companies is represented by the existence of a supplement to technical provisions, called "Solvency Margin."

This supplement or solvency margin is composed of:

- The share capital or establishment fund, paid up;
- Regulated or non-regulated reserves;
- Regulated provisions;
- Carried-forward surplus, either debtor or creditor.

The solvency margin defined above for property insurance and/or reinsurance companies must beat least equal to 15% of technical provisions, and must not be less than 20% ofaccepted premiums, net of taxes and cancellations.

3.2. Algerian Insurance CompaniesSupervision:

Insurance companies in Algeria are subject to supervision by several entities:

- **Insurance Supervisory Commission:**

The most important supervision being the oversight exercised by the Algerian government through the Ministry of Finance, under the authority of the insurance regulatory commission according to the article 209(Law N°06-04, 2006, p. 37):

There is established a commission for insurance supervision, acting as a regulatory authority through the insurance authority within the Ministry of Finance. The State's oversight of insurance and reinsurance activities is carried out by the insurance regulatory commission, with the following objectives:

- To protect the interests of policyholders and beneficiaries of insurance contracts, ensuring the compliance of insurance operations and the solvency of insurance companies;
- To promote and develop the national insurance market, aiming for its integration into economic and social activities.

- **National Insurance Council:**

Other bodies assist the Insurance Supervisory Commission. According to article 274 (Ordinance N°95-07, 1995, p. 52):A body named the National Insurance Council isestablished and chaired by the Minister in charge of Finance.

The council is consulted on issues and matters relating to the situation, organization and development of the insurance and reinsurance business. It is seized either by its president, or at the request of the majority of its members.

It can also be referred to draft legislative or regulatory texts falling within its field of competence, by the Minister in charge of Finance or on its own initiative.

According to article 3, the council can also suggest, in accordance with the legislation,all measures relating to(Executive Decree N°95-339, 1995, pp. 7 - 8):

- The technical and financial rules aimed at improving the general operating conditions of insurance and reinsurance companies as well as those of intermediaries;
- The general conditions of insurance contracts and tariffs;
- The organization of risk prevention.

- **Algerian Union of Insurance and Reinsurance Companies:**

Approved by the Ministry of Finance by decision N°001 of January 6, 2014, the algerian union of insurance and reinsurance companies is an association whichonly cares about the problems and concerns of insurers, some of its functions are promotion and development of the insurance sector, improving the quality of provided services…etc.

It should be noted that the Algerian legislator focused only on the efficiency of managing insurance companies, as it required that the main executives and administrative managers of the insurance companiesmust have a good reputation, high competence, and distinctive qualifications(كراش حسام، 2014، صفحة 192).However,it doesn’t focus on the management or the governance of insurance companies. As a result, the Algerian legistator did not give much importance to the qualitative requirementsas specified in Solvency II system.

3.3. Disclosure and Transparency of Algerian Insurance Companies:

In Algeria, insurance companies are required to submit various documents annually to the insurance regulatory commission. These documents include both quantitative and qualitative information, along with quarterly data on solvency margin and investments, they represent the reports provided to the regulatory authorities.

It is important to note that the Algerian legislation mandates insurance companies to publish their balance sheets and financial statements, these information are available in the annual reports of insurance companies usually on their websites, which can be downloaded by the public.

However, this cannot be regarded as information intended for the public, as solvency II regulations require a comprehensive report on the company's solvency and financial position to be published alongside the annual report. This report contains extensive information and quantitative annexes and must align with the report submitted to the regulatoryauthority (كراش حسام، 2014، صفحة 192).

Consequently, the solvency system for insurance companies in Algeria primarily focuses on providing information to regulatory authorities, distinguishing it from the solvency II system that emphasize sharing detailed informationwith both supervisory authorities and the public.

4. Solvency System of Insurance Companies in Algeria and Solvency II Comparison:

In this third part, we are going to present,in the table below, a comparison based on the main standards between thesolvency system of insurance companies in Algeria and Solvency II:

Table 1. Comparison between the Solvency System of Insurance Companies in Algeria and Solvency II.

Systems / Comparison standards	Solvency System of Insurance Companies in Algeria	Solvency II System
Valuation of Assets and Liabilities	**Historical costs.**	**Market value.**
Valuation of Technical Provisions	**Specific ratios and methods for calculating technical provisions for the two types of insurance (Life and non-life).**	**Market value in case of availability or the best estimate and risk margin.**
Solvency Margin	**15% of technical provisions and 20% of accepted premiums, net of taxes and cancellations.**	**The capital required for solvency is calculated either by the standard formula or the internal model, taking into account the exposed risks.**
Investment	**State securities should not be less than 50%.**	**Insurance companies are free to choose the right investment.**
Supervision and Control	**Exercised by authority of the insurance regulatory commission to protect policyholders, and to ensure the solvency of insurance companies without the focus on their management orgovernance.**	**Provide supervisory authorities with the focus on the good management of the company, internal control and risk management, in order to identify companies with significant financial or organizational risks.**
Information Transparency	**Submitting various documents which include both quantitative and qualitative information to the insurance regulatory commission besides data on solvency margin and investments, in addition to publish their balance sheets and financial statements in the annual reports.**	**Comprehensive and confidential report on the solvency and risk management of the company provided to the supervisory authority, in addition to a public reporting presenting essential information about the company's financial situation and solvency.**

Important Pillars of the System	**It is based on the quantitative aspect by imposing obligations that are the minimum capital, regulatory requirement, regulated commitments and how to represent them and the solvency margin. It somehow neglects the qualitative requirements and disclosure to the public of investors and the insured.**	**It is based on the quantitative and qualitative requirements plus the disclosure and transparency.**

Source : Prepared by the researchers based on the previous presented information.

From the previous table, we can say that there are some differences between the two regulatory frameworks, the Solvency II system and thesolvency system of insurance companies in Algeria, especially when it comes to the qualitative requirements and disclosure and information transparency, the Solvency II system focuses a lot on the three pillars with detailed content and special conditions, while the Algeriansolvency system focuses on all the requirements but especially the quantitative ones by imposing many provisions and conditions with some shortcomings.

5. Conclusion:

After presenting the Solvency II, including its definition, objectives, and its three pillars, we proceed to examine the solvency system of insurance companies in Algeria. This involves exploring both the quantitative and qualitative requirements, as well as the aspects of disclosure and transparency. Finally, we substantiate the hypothesis of this study, which states that there is a difference between Solvency II and the solvency system of insurance companies in Algeria.

We also found out thatSolvency IIis of paramount importance for insurance companies and policyholders. Itsprimary aim is to ensure that insurance companies remain solvent at all times, capable of paying claims, and thus safeguarding the interests of policyholders.

Furthermore, we discovered that there are some differences betweenSolvency IIand the solvency system of insurance companies in Algeria, with the latter focusingmore on quantitative requirements compared to other aspects.

Results

The most important results of the study are shown below:

- The Solvency II is based on three fundamental pillars:

  - The first pillar involves assessing the balance sheet items and technical provisions at market value, in addition to setting the minimum capital requirement and solvency margin;

- The second pillar encompasses qualitative measures related to internal and external control and governance principles;
- The third pillar focuses on disclosure and informationto all stakeholders with greater transparency to achieve market discipline.

- Thesolvency system of insurance companies in Algeria focuses on the quantitative requirements represented by the minimum capital requirement, the composition of regulated commitmentsand their representation in equivalent assets, in addition to the solvency margin;
- The solvency system of insurance companies in Algeria did not keep up with the developments witnessed inSolvency II, it largely resembles to Solvency Ias it focuses on quantitative requirements without much emphasis on qualitative and transparency aspects.

Recommendations

From the reached results, the most important recommendations can be presented as follows:

- The assets, liabilities, and regulated commitments should be evaluated with the market value instead of historical cost for better representation;
- The necessity of establishing a new financial solvency system for Algerian insurance companies that includes dynamic quantitative requirements linked to the risks, and also being flexible enough to suit the individual situation of each insurance company;
- The importance of focusing on qualitative requirements by tightening supervision of Algerian insurance companies and emphasizing their governance system to ensure the proper functioning of their activities;
- The need to emphasize disclosure and transparency requirements in insurance companies by expanding the information disclosed, obliging insurance companies to regularly publish their financial statements and relevant information in details for the public and stakeholders, and ensuring that this information is up-to-date periodically.

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