# Solvency II Risk Management Requirements: A Spotlight on Algeria's Insurance Industry

**Riad Meriem** *

Entrepreneurship and Tourism Development Laboratory,

University Center of Tipaza –Algeria

riadmeriem2018@hotmail.com

Received: 11/09/2023 Accepted: 22/03/2024 Published: 27/06/2024

**Abstract:**

This article provides a comprehensive examination of Solvency II objectives, focusing on provisioning methods in Property and Casualty insurance. It elucidates the three pivotal pillars of Solvency II and their profound impact on the insurance sector. The practical implementation of solvency regulations in Algerian insurance companies is scrutinized.

The key findings reveal that the adoption of Solvency II in Algeria encounters multiple challenges, including structural, legislative, transformation-related, and governance and disclosure issues. To address these challenges, the adoption process requires impact studies, simulations, and tests, similar to the European market's practices.

**Key words:** Solvency II; provisioning methods; insurance sector; Implementation; Challenges.

**Jel Classification Codes :** G22 ; G28; G32.

* Correspondingauthor.

## 1. Introduction:

The Property and Casualty insurance industry holds fundamental importance in managing the risks faced by individuals and businesses. In this context, assessing the solvency of insurers is of crucial significance to ensure the financial stability of the sector and safeguard the interests of policyholders. To address this requirement, the European Union has established a regulatory framework called Solvency II, which imposes provisioning methods and solvency requirements (Lagarde, 2010).

The Solvency II regulation, which took effect in 2016, introduced a comprehensive set of stringent standards designed to strengthen the oversight and regulation of insurance companies operating in the European market. The primary goal of Solvency II is to ensure that insurers possess sufficient capital to fulfill their obligations to policyholders, even in extraordinary situations. To accomplish this, it mandates insurers to establish resilient provisioning methods and engage in continuous solvency analysis (IMF, 2022).

This intricate regulation has brought about significant changes in how insurers operate, especially in terms of adopting provisioning methods to project future liabilities and meeting capital requirements to ensure their solvency. Algeria, much like other nations, is working towards the implementation of the new solvency regulations established by the European Union in order to align its sector with international standards. In this regard, a question arises, which is:

**What are the requirements for implementing risk management measures by Property and Casualty insurance companies in accordance with the Solvency II framework, especially concerning Algeria?**

To address this issue, we will conduct an in-depth examination of the regulatory framework of Solvency II, including its key components. Subsequently, we will emphasize the critical importance of provisioning methods and solvency analysis within the Property and Casualty insurance sector, which operates in an ever-evolving regulatory landscape. This will be accomplished by presenting the three pillars of Solvency II. Additionally, we will outline the impact that these methods and requirements have had on an insurance industry that plays an essential role in risk management. Finally, we will discuss the solvency standards adopted by Algerian companies and the prerequisites for implementing Solvency II in Algeria.

It should be noted that the primary objective of this study is to review solvency standards in general, including those applied in the Algerian insurance market, and to address the challenges that must be overcome for the gradual adoption of Solvency II by insurance companies in Algeria.

## 2. Solvency II: A Regulatory Framework for Risk Management in Insurance:

Solvency II is a European regulatory framework that entered into force in 2016, with the aim of enhancing the regulation and supervision of insurers within the European Union. It is founded on a framework directive from 2009 that amends the European regulations ensuring the solvency of insurance companies. Insurers and reinsurers are obligated to align their capital levels with the risks inherent to their operations.

The primary aim of Solvency II is to ensure that insurance companies maintain an adequate level of capital to fulfill their obligations to policyholders, even in exceptional circumstances. It establishes stringent standards for capital, provisioning, and governance. In the following section, we will outline the primary s (CE, 2020).

**2.1. The Objectives of Solvency II:**

It should be noted that Solvency II pursues ambitious objectives, some of which already existed in Solvency I but were aimed at strengthening them.

The central objective of Solvency II is to ensure that insurance companies have adequate capital to cover their commitments to policyholders, even in adverse situations. To achieve this objective, Solvency II aims to (EIOPA, 2023):

- **Strengthening the financial stability of insurance companies:** By ensuring that they have an adequate level of capital to meet their commitments to policyholders, even in exceptional circumstances. By requiring insurers to maintain sufficient equity capital, Solvency II aims to reduce the risk of bankruptcy or failure in the insurance sector;
- **Enhance policyholder protection:** By implementing stricter standards for policyholder protection and ensuring that insurers possess the necessary financial resources to meet their obligations, this regulatory framework bolsters the financial security of customers. This implies that, even in the event of a financial crisis or substantial claims, policyholders can have confidence in the payment of their benefits;
- **Harmonizing regulations within the European Union:** Before Solvency II, each European country had its own solvency rules for insurers, which could lead to competitive distortions and uncertainties for businesses operating on a cross-border scale. The harmonization of regulations through Solvency II aims to create a more efficient and transparent single insurance market;
- **Promote Active Risk Management:** Solvency II encourages insurance companies to adopt a proactive approach to risk management. Insurers are incentivized to assess their internal risks, establish appropriate governance mechanisms, and integrate risk management into their corporate culture. This promotes improved decision-making and more effective risk management;
- **Enhance Transparency and Trust:** The regulatory framework mandates increased disclosure of financial and risk management information. This heightened transparency enables stakeholders, including regulators, investors, and policyholders, to gain a better understanding of the financial position of insurance companies, ultimately enhancing trust in the industry.

In summary, Solvency II was developed to address key objectives, contributing to the transformation and modernization of the European insurance sector. It strengthens financial stability, safeguards policyholders, harmonizes regulations, promotes active risk management, and enhances transparency. Notably, Solvency II's objectives are closely tied to provisioning methods, ensuring that insurers accurately estimate their future commitments to policyholders, thus enhancing the sector's financial stability. This will be discussed further in the following section.

## 3. Provisioning Methods in Property and Casualty Insurance:

In the field of non-life insurance, the ability to forecast and manage future commitments is essential. This is where provisioning methods come into play, a central element of risk management in the insurance industry. In the following, we will discuss provisioning methods in Property and Casualty insurance, exploring their significance, challenges, and their role in the sustainability of the sector.

### 3.1. Concept of Provisioning:

The term insurance provisioning refers to the practice of estimating future costs related to claims and obligations to policyholders. In essence, it entails predicting the amounts that insurance companies will need to pay to meet their commitments in case of claims. This estimation is vital for evaluating the company's solvency and ensuring that it possesses the required financial resources to address these unexpected expenses (Tosetti, Béhar, & Fromanteau , 2011).

According to the insurance code, insurers are required to establish «adequate technical provisions to fully settle their obligations to policyholders or contract beneficiaries». Therefore, technical provisions are funds created and recorded on an insurer's balance sheet for unsettled claims. The assets corresponding to these provisions are funded by premiums paid by policyholders. In cases where these premiums are insufficient, the shortfall must be covered by equity capital. Now, let's delve into provisioning methods.

### 3.2. Provisioning Methods:

Property and Casualty insurance provisioning methods are designed to accurately estimate the insurer's future commitments to policyholders. Solvency II imposes three main provisioning methods (Dreksler, Allen, & Akoh-Arrey, 2013):

- **Incurred Claims Provisioning (Best Estimate):** This method involves estimating future payments related to incurred claims, using statistical models and historical data. It aims to reflect the best possible estimate of future costs;
- **Future Claims Provisioning (Risk Margin):** In addition to provisioning for incurred claims, Solvency II requires insurers to account for a risk margin to cover the uncertainties inherent in estimations. Actuaries use complex mathematical models to assess future risks and estimate provisions based on this data. This method is

often preferred for complex risks and specialized insurance products. This margin should reflect the cost of the capital needed to support these risks;

- **Natural Catastrophe Provisioning:** In Property and Casualty insurance, natural disasters can have a significant impact. Solvency II requires insurers to assess and set aside specific provisions for these events, utilizing catastrophe models to estimate potential losses.

While provisioning methods are essential for assessing the solvency and financial stability of an insurance company, they also come with significant challenges. Fluctuations in financial markets, changes in laws and regulations, as well as the difficulty of predicting exceptional claims, can make provisioning complex and uncertain. The next section will be dedicated to addressing these issues to gain a better understanding of this concept.

**3.3.The provisioning risk:**

The provisioning risk in insurance arises from the difficulty of precisely predicting future costs associated with claims and commitments to policyholders. Insurance companies must estimate these costs based on historical data, mathematical models, and other factors, but there is always a level of inherent uncertainty in these estimates. The primary causes of provisioning risk include ( Bomgiovani Cazzari & Fernandes Moreira, 2021) :

- **Variability of Claims:** Claims can vary in terms of severity and frequency, making it challenging to predict future costs accurately;
- **Financial Market Changes:** Returns on the company's investments can fluctuate, thereby affecting its ability to meet its commitments;
- **Legislative and Regulatory Changes:** Alterations in laws and regulations can impact claims costs, creating uncertainty**;**
- **Exceptional Events:**Natural disasters, pandemics, or other extraordinary events can generate unexpected costs.

If provisioning risk is not properly managed, it can have serious consequences for insurance companies, especially in terms of their solvency. Therefore, it is essential to effectively manage this risk through various strategies, including (IAA, 2013):

- **Actuarial Models:** Actuaries use sophisticated mathematical models to estimate future claim costs based on historical data and future scenarios;
- **Investment Diversification:** Insurance companies diversify their investments to reduce dependence on specific financial assets;

- **Ongoing Monitoring:** Insurers continuously monitor their provisions and adjust their strategies based on changing risks.

The risk of provisioning in insurance is an ever-present reality, but manageable. It demands constant vigilance, strong actuarial skills, and appropriate risk management mechanisms so that insurance companies can fulfill their commitments to policyholders and maintain their long-term financial stability.

Ultimately, provisioning methods play a vital role in the P&C insurance industry. They enable insurers to effectively manage risks and ensure their ability to honor their commitments to policyholders, even in the face of the unexpected. Proper provisioning management contributes to stability and trust in the sector, which is essential for protecting the interests of policyholders and maintaining the long-term viability of P&C insurance companies ( Shah, 2019). This is what we will analyze in the following section, namely the presentation of the three pillars of Solvency 2, where each has a specific role in risk management.

## 4. Solvency Analysis in Non-Life Insurance: The Three Pillars of Solvency II

Solvency II is based on three fundamental pillars that make up a comprehensive set of standards and practices aimed at ensuring the financial stability of the insurance sector. In this section, we will delve into each of these three pillars in detail and their crucial role in risk management in insurance.

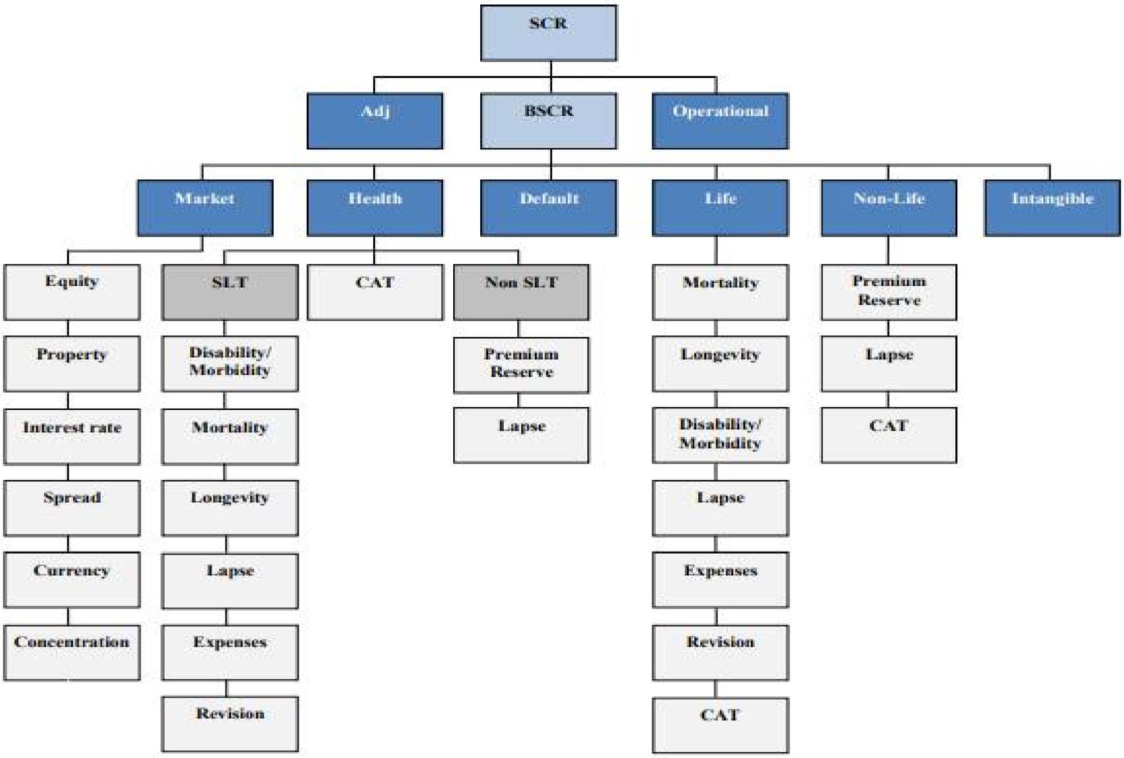
### 4.1. Pillar 1: Quantitative Requirements

Insurance companies will be subject to specific capital requirements. The minimum level and composition of an insurer's own funds is determined by reference to its «Solvency Capital Requirement» and «Minimum Capital Requirement». However, the calculation of Own Funds itself is subject to significant impact compared to theAccounting Surplus vision, as liabilities (Technical provisions) and Assets (mainly financial assets) will be treated in an Economic View (Gorge, 2016).

#### 4.1.1. Solvency Capital Requirement (SCR)

The SCR reflects a level of capital that enables an institution to absorb significant unforeseen losses and that gives reasonable assurance to policyholders and beneficiaries.

**Fig N° 1: Structure of the risks taken into account by the SCR**




**Source:**Taken from (IFA, 2016) Solvency II- Life Insurance, Institue and Faculty of Actuaries.

The risks taken into account in the calculation of the SCR are detailed below (Otoul, 2019):

- **Market risks**: These are all the risks linked to the financial market and therefore linked to the financial products that the insurance company owns such as stocks, bonds, etc;
- **Health underwriting risks**: These are the risks associated with epidemics and the mortality of policyholders;
- **Risk of default**: This is the risk that an insured will no longer be able to honor his commitments and therefore pay the insurance premiums;
- **Life underwriting risks**: These are the risks resulting from life insurance contracts which take into account the volatility of the incapacity for work of the insured, mortality, morbidity and longevity;
- **Non-life underwriting risks**: These are the risks resulting from non-life insurance contracts which take into account premiums, reserves and catastrophe.

Having discussed the Solvency Capital Requirement (SCR), let's now delve into the concept of the Minimum Capital Requirement (MCR) in insurance regulation.

### 4.1.2. Minimum Capital Requirement (MCR):

The Minimum Capital Requirement (MCR) is a crucial regulatory component in the insurance industry, particularly under frameworks like Solvency II in Europe. It represents the minimum amount of capital that an insurance company is required to hold to ensure that it can meet its obligations to policyholders and absorb potential losses.Here are some key points about the Minimum Capital Requirement (CE, 2015)**:**

- **Regulatory compliance**: MCR is set and enforced by regulatory authorities to guarantee the financial stability and solvency of insurance companies. It ensures that insurers have sufficient capital reserves to cover their insurance liabilities and risks;
- **Risk-Based**: The MCR is typically calculated based on a risk-based approach, taking into account various factors such as the type of insurance policies, the level of risk associated with those policies, and the financial stability of the insurer;
- **Protection of policyholders**: One of the primary purposes of MCR is to protect policyholders. By mandating a minimum capital level, regulators aim to minimize the risk of insurers becoming insolvent and unable to fulfill their obligations to policyholders;
- **Capital adequacy**: Insurance companies must maintain capital above the MCR at all times. This provides a buffer to absorb unexpected losses and maintain financial stability;
- **Consequences of Non-Compliance**: If an insurance company's capital falls below the MCR, it may face regulatory action, such as restrictions on business operations or even liquidation if the situation is severe. Compliance with MCR is a critical aspect of regulatory supervision;
- **Varies by jurisdiction:** The specific calculation and requirements for MCR can vary by jurisdiction and regulatory framework. Solvency II in Europe, for example, has specific rules for determining MCR, while other regions may have different approaches;
- **Regular assessment:** Insurers are required to regularly assess their capital position and report it to regulatory authorities. This reporting ensures ongoing compliance with MCR;
- **Solvency Ratios:** MCR is often compared to another key regulatory requirement, the Solvency Capital Requirement (SCR). The SCR represents a higher level of capital required to provide an even larger buffer against financial stress.

In summary, the Minimum Capital Requirement is a fundamental element of insurance regulation aimed at safeguarding the interests of policyholders and maintaining the stability of the insurance industry by ensuring that insurance companies have adequate capital to cover their liabilities and withstand financial challenges.

The calculation of the SCR and the MCR largely relies on an accurate assessment of technical provisions in insurance, which we will present in the following.

**4.1.3. Technical Provisions:**

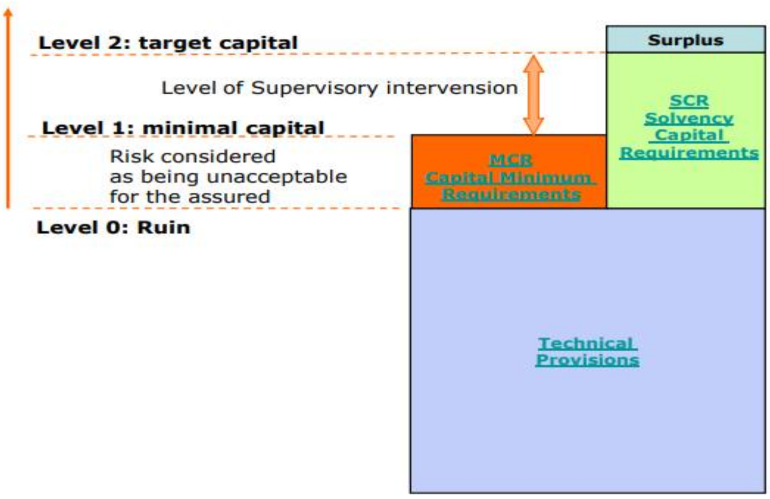
Technical provisions in the context of insurance represent the estimated liabilities that an insurance company expects to pay in the future as a result of its policies. These provisions are a critical aspect of insurance accounting and regulatory compliance, as they ensure that the company has adequate funds set aside to fulfill its obligations to policyholders. They serve as a financial cushion to cover the insurer's future liabilities.

They are designed to guarantee that the company can meet its commitments to policyholders even if a significant number of claims or obligations arise simultaneously. Technical provisions typically consist of two main components (CE, 2015):

- **Claims Reserves**: These funds are set aside to cover future claims that policyholders may file. This includes estimated amounts for reported claims (claims already known to the insurer) and incurred but not reported claims (claims that may have occurred but have not yet been reported);
- **Premium Liabilities**: This component represents unearned premiums. When a policyholder pays an insurance premium, the insurer recognizes it as revenue over the policy's duration. Until the policy period is completed, the unearned portion of the premium is treated as a liability.

In summary, technical provisions are a fundamental element of insurance accounting and regulation. They represent the estimated future liabilities that insurers need to cover, encompassing both claims reserves and unearned premiums. Accurate calculation and management of technical provisions are essential to the financial stability and solvency of insurance companies. The figure below illustrates the relation between levels of capital requirements:

**Fig N° 2: The relation between levels of capital requirements in pillar 1 of Solvency 2**




**Source:**Taken from (PIU, 2017), Solvency, https://piu.org.pl/public/upload/ibrowser/solvency/o_solvency.pdf . Consulted in 13/07/2023

### 4.2. Pillar 2: Risk Management

Solvency I was a static and purely deterministic set of rules and regulations, whereas Solvency II is dynamic and risk-based, i.e. identified risks are backed with capital, but also qualitatively addressed as governance measures are used to try to cover them. This aspect was only implicitly - and insufficiently - addressed by Solvency 1 (Wollmann & Püringer , 2022).

Under Solvency II, all insurance companies are required to have a risk management function, actuarial function, compliance function and internal audit function. The organisational structure must have clear segregation of responsibilities, the minimum levels of which are defined within the Pillar 2 framework (IFA I., 2016).

To support this, the directive stipulates four key functions that every insurance company must implement:

- Internal Audit;
- Compliance;
- Risk management;
- (Virtual) Actuarial Function

**4.3. Pillar 3: Disclosure Management**

Pillar 3 involves disclosure requirements by the European supervisory authorities with the aim of creating transparency and market discipline. This is to be achieved through extensive documentation and reporting requirements by the insurance company requiring that standardized qualitative and quantitative information on the results and measures covered by Pillars 1 and 2 be prepared and disclosed to the public and supervisory authorities (Wollmann & Püringer , 2022).

Together, these three pillars of Solvency II form a comprehensive framework aimed at ensuring the financial strength of insurance companies, protecting the interests of policyholders, and ensuring the financial stability of the sector. They have had a significant impact on the insurance industry in Europe, prompting companies to adopt more rigorous practices in risk management and financial transparency. In summary, the three pillars of Solvency II represent a crucial step towards stronger and more efficient financial regulation in the field of insurance. We will now focus on the impact they have had on the insurance industry.

**5. Impact of Solvency II on the Insurance Industry:**

The insurance sector plays a vital role in maintaining financial stability by providing protection against life's uncertainties for individuals, businesses, and assets. However, this stability itself depends on the financial strength of insurance companies. This is where Solvency II comes into play, a European regulatory framework that has significantly reshaped the insurance industry since its implementation in 2016. Together, the three pillars of Solvency II form a comprehensive framework aimed at enhancing risk management and the solvency of insurance companies.

Solvency II has had a significant impact on the insurance industry in Europe, prompting companies to adopt more rigorous practices in risk management and financial transparency. They have even had to review their provisioning methods and increase their capital, sometimes requiring substantial reorganizations. These prudential requirements have helped increase public trust in the insurance sector, better protect policyholders' interests, and ensure the financial stability of the market (Wang, 2013).

In the end, the three pillars of Solvency II represent a crucial step towards strengthened and more efficient financial regulation in the insurance sector.

Algeria, like many countries, is striving to implement Solvency II standards to enhance the stability and financial strength of its insurance sector. However, this compliance presents unique challenges due to the specific characteristics of the Algerian insurance market. In the following, we illustrate the complexities of implementing Solvency II in Algeria.

**6. The reality of implementation of the Solvency regulations in Algerian insurance companies.**

The implementation of Solvency II in Algeria poses a significant challenge for the insurance sector, and it is essential to grasp the reality of this regulatory transition. The implementation of Solvency II in Algeria poses a significant challenge for the insurance sector, and it is essential to grasp the reality of this regulatory transition.

**6.1. Algerian prudential regulations:**

**6.1.1. The establishment of prudential regulation (1995):**

Ordinance No. 95-07 of January 25, 1995 marks a pivotal moment in the supervision of the insurance industry. The market's liberalization necessitates a new approach to supervision, with a focus on regulating access for market participants and monitoring their solvency during their operations. This ordinance establishes a legal framework for overseeing and structuring insurance activities within an open and competitive market.

It is built upon several key principles that collectively form the initial prudential standards for the insurance sector in Algeria (Sadek & Boulenouar , 2019).

**6.1.2. Law 06-04 amending and supplementing the ordinance 95-07 (2006):**

Nearly eleven years after the liberalization of the insurance sector and the introduction of prudential standards, Law 06-04 represents the first major reform undertaken by the State in the field of insurance. This reform includes the reconfiguration of the supervisory body into a commission and the creation of new advisory bodies.

The primary objective of this law is to establish a clear separation between personal insurance and property insurance. Insurance companies are granted a five-year (05) period to comply with this requirement. Furthermore, two (02) years prior to the expiration of this period, minimum share capital or an establishment fund is established, depending on the nature of the insurance branches, for any establishment of insurance companies (Sadek & Boulenouar , 2019).

### 6.2. Solvency standards applied in Algerian insurance companies:

The current regulation that defines the solvency of insurance companies, known as Solvency 1; primarily focuses on establishing prudent provisions for liabilities and on rules for asset holding and investment. The Algerian insurance sector is governed specifically by Ordinance 95-07, as amended and supplemented by Law 06-04 of February 11, 2006. The latter stipulates that the solvency of insurance and/or reinsurance companies must be demonstrated by justifying the existence of an additional provision for technical debts or a solvency margin.The solvency margin comprises (Lalloui & Haffar, 2022) :

- The portion of the paid-up share capital or establishment funds;
- Regulated or unregulated reserves, established by the insurance organization, even if they do not correspond to obligations towards policyholders or third parties;
- The guarantee provision;
- The provision for the mandatory supplementary technical debt;
- Other provisions, regulated or not, that do not correspond to obligations towards policyholders or third parties, excluding provisions for foreseeable commitments or asset depreciation;

The solvency margin for insurance and/or reinsurance companies must be equivalent to at least 15% of technical debts, as determined on the liability side of the balance sheet.

At any point during the year, the solvency margin for insurance and/or reinsurance companies must not fall below 20% of turnover, inclusive of all taxes, net of cancellations and reinsurance.

Similarly, any acquisition of shares in an approved insurance company, equal to or exceeding 20% of the capital, requires the approval of the supervisory authority. Additionally, to mitigate systemic risks, the participation of banking and financial institutions in the capital of insurance companies has been regulated (Allouache, Fekarcha, & Athamnia, 2021).

A period of six (06) months commences from the date of the report's signature, which establishes the findings. In case the insurance and/or reinsurance company opts for making a deposit, the release of said deposit will be determined by a decision from the Director of Insurance, in consultation with the ministry responsible for finance.

It is evident from the foregoing that the current solvency regulations in Algeria are based on Solvency 1 standards. Compared to Solvency II, these regulations are outdated and need to adapt to the new realities and challenges of the insurance sector. The adoption of Solvency II could be advantageous for Algerian insurance companies and should facilitate their integration into the international market. Moreover, it can serve to (Lalloui & Haffar, 2022):

- Implement optimal management of their own funds to achieve a better balance between the demands of supervisory authorities and rating agencies, and the expectations of shareholders aiming to maximize their return on investment through the allocation of capital to the company;
- Embrace good governance practices;
- Oversee their interactions with supervisory authorities.

**7. Solvency II in Algeria: A Challenge for the Insurance Industry:**

Before delving into the requirements for implementing Solvency II in Algerian insurance companies, it is essential to first examine the challenges associated with its adoption. These challenges can be summarized as follows (Sandjek eddine & Hassani, 2022):

- **Structural Challenges**: Solvency II was established in the European Union due to the insurance sector's significance in its economies and its substantial contribution to mobilizing savings and providing protection against various economic risks. In contrast, the contribution of the insurance sector to Algeria's gross domestic product is quite modest, with a predominant focus on damage insurance compared to other insurance products;
- **Legislative Challenges**: These challenges pose obstacles to implementing many of the requirements of Solvency II regulations;
- **Transformation Difficulty Challenge**: Implementing Solvency II provisions may be challenging due to the relatively small size and limited scope of the local Algerian market, as well as the willingness of insurance companies to adopt modern business practices such as calculating capital requirements through the development of internal models;
- **Governance and Disclosure Challenges**: The solvency regulations in Algeria primarily emphasize quantitative requirements and lack a clear and detailed framework for complying with governance principles.
- **Data and Reporting:** Access to accurate and up-to-date data is crucial for calculating capital requirements in line with Solvency II. However, in Algeria, collecting reliable data can be a challenge, especially for claims and actuarial models;
- **Capital Adequacy:** Insurance companies need to assess whether their existing capital is adequate to meet the new Solvency II requirements. This may require significant adjustments in capital management.
- **Risk Management:** Companies must establish risk management mechanisms that align with Solvency II standards, which may necessitate organizational changes and investments in human resources;
- **Training and Awareness:** Employees in the sector must receive training and awareness regarding Solvency II requirements, which can be a costly and time-consuming process.

It is evident that the requirements of Solvency II exceed the current capabilities of Algerian insurance companies. The adoption of Solvency II can only be achieved through a gradual approach extended over time, requiring impact studies, simulations, and tests, similar to current practices in the European market. Therefore, it is advisable to begin with a partial adoption or, at the very least, to draw inspiration from the Solvency II framework to enhance internal regulations (Lalloui & Haffar, 2022).

The success of achieving compliance in the Algerian insurance sector will depend on companies' ability to tackle these challenges while simultaneously maintaining the delivery of high-quality services to their policyholders. Regulations can indeed act as a catalyst for improving risk management and transparency within the Algerian insurance industry.

**8. Results and discussion:**

Based on the presentation regarding the case of Algeria and the potential implementation of Solvency II in insurance companies, we have identified certain points that need to be reviewed by insurance companies in order to comply with solvency standards. We will list them in the following:

- Review the reorganization of the operational structure to meet the required solvency margin (a company must be solvent in 99.5% of cases);
- Find the appropriate method for determining the solvency margin (internal risk model);
- Provide regular information regarding the company's status;
- Take into account the characteristics of the companies (size, specialization) in calculating various indicators to avoid penalizing certain companies.

The purpose of this article was to conduct an in-depth analysis of the regulatory framework of the insurance sector in Algeria in order to propose the various changes and requirements that companies will need to adhere to in order to adopt Solvency II standards. From this, we have obtained certain results that we will list in the following text.

- Solvency II standards aim to encourage organizations to gain a better understanding of and assess their risks, especially by aligning regulatory requirements with the risks that companies encounter in their operations;
- Ordinance 95-07, issued on January 25, 1995, establishes the legal framework for the supervision and organization of insurance activities in an open and competitive market. It is built upon several key pillars that collectively form the initial prudential standards for insurance in Algeria;
- The Algerian insurance sector is primarily governed by Ordinance 95-07, as amended and supplemented by Law 06-04, enacted on February 11, 2006;

- There are numerous challenges associated with the implementation of Solvency II in Algerian insurance companies. These challenges encompass structural issues, legislative complexities, transformation difficulties, as well as governance and disclosure challenges;
- The adoption of Solvency II in Algerian insurance companies should follow a gradual and phased approach. This approach will require conducting impact studies, simulations, and tests, similar to the practices currently observed in the European market.

**9. Conclusion:**

Solvency plays a central role in the insurance industry, and with the implementation of Solvency II directives, insurers are required to thoroughly understand all the risks associated with their operations. This understanding is crucial to provide an accurate and comprehensive assessment of the capital necessary to cover these risks.

Solvency II has introduced a robust regulatory framework for provisioning and solvency analysis within the Property and Casualty insurance sector. These requirements are designed to ensure the financial stability of insurers, protect the interests of policyholders, and enhance confidence in the insurance industry. Consequently, Property and Casualty insurers are obligated to implement precise provisioning methods and maintain sufficient capital levels to manage risks in accordance with Solvency II. This regulation has had a significant impact on risk management and transparency within the European Property and Casualty insurance industry.

Throughout this article, we have provided a detailed overview of Solvency II objectives, with a specific focus on provisioning methods in Property and Casualty insurance. We have also explained the three pillars of Solvency II, highlighting their influence on the insurance sector.

Subsequently, we have addressed the current status of implementing solvency regulations within Algerian insurance companies. Upon examining the regulatory framework of the insurance sector in Algeria, it becomes evident that the requirements of Solvency II currently exceed the capabilities of Algerian insurance companies, and full adoption in the short term seems unlikely. However, Algerian regulators might consider initiating a partial adoption or, at the very least, draw inspiration from the Solvency II framework to improve their internal regulations and management practices.

**10. List of references:**


1. Bomgiovani Cazzari, R., & Fernandes Moreira, G. (2021, 07 23). Uncertainty of Claims Provisions from the Analysis of Financial Statements. Revistas, pp. 27-33.
2. Shah, I. (2019, 09 09). Can actuaries redefine the risk management in banking? Retrieved from BFSI: https://bfsi.economictimes.indiatimes.com/news/banking/can-actuaries-redefine-the-risk-management-in-banking/71042006
3. Allouache, S., Fekarcha, S., & Athamnia, R. (2021, 12 31). Vers un nouveau cadre prudentiel pour le secteur des assurances. Revue des recherches en sciences financières et comptables, pp. 576-592.

4. CE. (2015, 01 12). Solvency II Overview – Frequently asked questions. Retrieved from Commission européenne: https://ec.europa.eu/commission/presscorner/detail/fr/MEMO_15_3120
5. CE, C. (2020, 10 22). Entreprises d'assurance et de réassurance: révision des règles prudentielles (directive Solvabilité II). Retrieved from Insurance Europe: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12461-Review-of-measures-on-taking-up-and-pursuit-of-the-insurance-and-reinsurance-business-Solvency-II-/public-consultation_fr
6. Dreksler, S., Allen, C., & Akoh-Arrey, A. (2013). Solvency II : Technical Provisions for General Insurers. United Kingdom: Institute and Faculty of Actuaries.
7. EIOPA. (2023, 07 13). Solvency II. Retrieved from European Insurance and Occupational Pensions Authority: https://www.eiopa.europa.eu/browse/regulation-and-policy/solvency-ii_en#:~:text=Solvency%20II%20sets%20out%20requirements,protection%20of%20policyholders%20and%20beneficiaries.
8. Gorge, G. (2016). Insurance Risk Management & Reinsurance. Retrieved from Lulu: https://www.lulu.com/shop/guillaume-gorge/insurance-risk-management-reinsurance/ebook/product-2n68q5.html?page=1&pageSize=4
9. IAA. (2013). Actuarial Viewpoints on and Roles in systemic risks regulation in insurance market. Canada: International Actuarial Association.
10. IFA, I. (2016). Solvency II- Life Insurance. Retrieved from https://www.actuaries.org.uk/system/files/field/document/IandF_SA2_SolvencyII_2016.pdf
11. IMF. (2022, 07 27). Financial Sector Assessment Program-Technical Note on Insurance Regulation and Supervision. Retrieved from IMF Elibrary: https://www.elibrary.imf.org/configurable/content/journals$002f002$002f2022$002f244$002farticle-A001-en.xml?t:ac=journals%24002f002%24002f2022%24002f244%24002farticle-A001-en.xml
12. Lagarde, O. (2010, 07 05). L'invention du contrôle des risques dans les organismes. Paris, France.
13. Lalloui,K.,& Haffar,A.(2022, 01 05).De Solvabilite I Vers Solvabilite Ii, Enjeux Juridiques Et Perspectives En Termes De Gestion Et De Communication Financiere, Pour Le Marche Algerien Des Assurances."Revue d'études juridiques et politiques",pp. 535-554.
14. Otoul, B. (2019). Quels sont les impacts du passage de Solvabilité I à Solvabilité II sur les contrats à annuités ? Quels sont les impacts du passage de Solvabilité I à Solvabilité II sur les contrats à annuités ? France: Louvain School of Management.
15. PIU. (2017). Solvency. Retrieved from https://piu.org.pl/public/upload/ibrowser/solvency/o_solvency.pdf
16. Sadek , T., & Boulenouar , B. (2019, 05 24). Les Effets De La Réforme De La Réglementation Prudentielle Engagée En 2006 Sur L'activité De L'assurance En Algérie. Revue algérienne d'économie et gestion, pp. 69-81.
17. Sandjek eddine, N., & Hassani, H. (2022, 01 29). أي تحديات تواجه تطبيقه على شركات التأمين الجزائرية؟ :الأوروبي 2نظام الملاءة. الاكاديمية للدراسات الاجتماعية و الانسانية, pp. 113-125.
18. Tosetti, A., Béhar, T., & Fromanteau , M. (2011). Assurance : « Comptabilité, réglementation, actuariat ». Paris: Economica.
19. Wang, L. (2013, 01 01). The Implications of Solvency II to Insurance Companies. USA, South Carolina: University of South Carolina.
20. Wollmann, P., & Püringer , R. (2022). Transforming Public and Private Sector Organizations: Implementing Sustainable Purpose, Travelling Organization and Connectivity for Resilience (Future of Business and Finance) 1st ed. LOndon- Berlin: Springer.