The Impact of Solvency II Directive upon the Perspectives of the Horizon 2020 Programme

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Abstract: *This paper focuses on analyzing the characteristics and recent evolution of the Romanian insurance market. Comparisons between Romania and other European countries will be performed and the relationship between the development of the insurance market and the economic development will be investigated. The causal relationships and the degree of interdependence between these phenomena will be described using quantitative techniques. The results obtained will enable us to assess the expected performance and impact of Solvency II Directive from the perspective of Horizon 2020 Programme in Romania and in the broader context of the European Union countries.*

Keywords: *Solvency II, risk management, insurance, sustainable economic growth*

JEL Classification: *C19, C58, G22, G28, O11, O16*

1. Introduction

One of the main objectives of the Horizon 2020 Programme is to achieve sustainable and inclusive economic growth, based upon the most recent cutting edge research. In the process of designing the its directions, a special attention has been paid to the recent international developments and trends, which indicate that research must be more strongly interconnected and directed towards the practical impact of its results in various fields, especially for solving the most serious and important problems of humanity. Such a problem is

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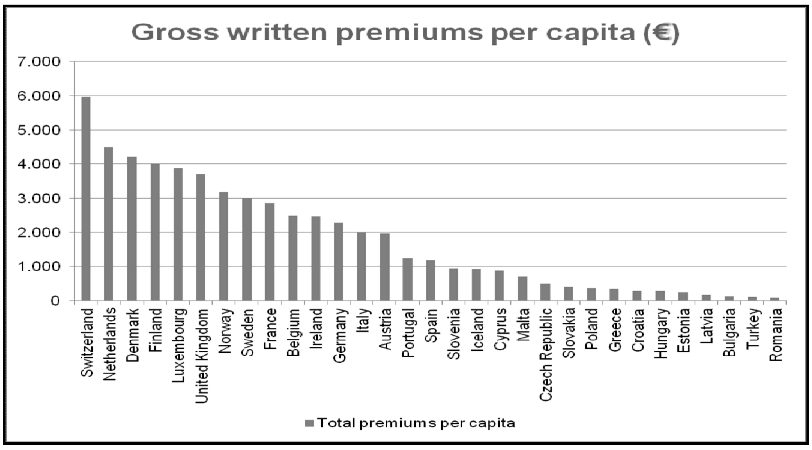
represented by the most recent financial crisis, which imposed the need for a new approach to risk management in the financial sector, including the insurance market (Zaman and Georgescu, 2009, 2010). In order to achieve the objectives of the strategy for sustainable development all the risks generated by endogenous and exogenous factors must be considered and also the structural transformations and the macroeconomic equilibrium (Zaman and Georgescu, 2015). The complexity of the risks arising in the financial market requires a comprehensive approach to solvency in the financial sector (Georgescu, 2007, 2015). The impact of the financial crisis on private pensions and the financial restrictions of the state, in the context of the sustainable development objectives turned into an actual challenge inside the insurance sector. It determined the need to design innovative insurance products and to develop combined pension systems, in order to guarantee a decent life at old ages (Vasile, 2012).

2. Comparative analysis regarding the insurance sector in European countries

The analysis of the insurance sector in the European countries reveals important discrepancies between their level of development. In order to assess this characteristic, we have used data from the EUROSTAT database regarding the values of the gross written life and non-life insurance premiums and the population of the European countries.

Figure 1. Comparative study: Gross written premiums per capita in European countries (in euros)

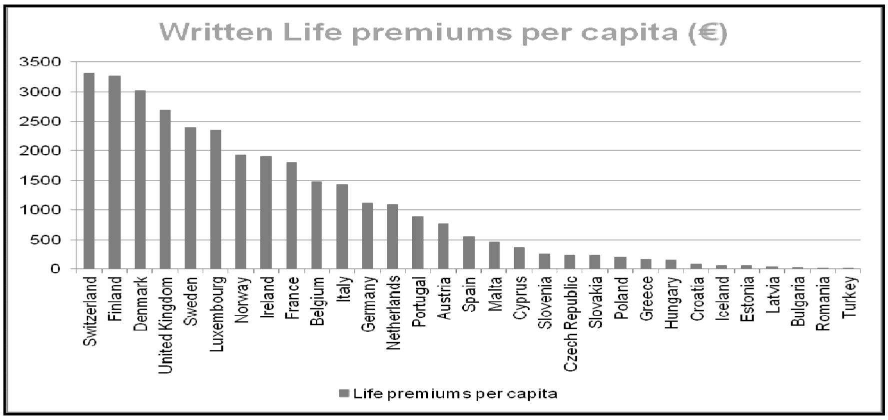


Source: processed by the author using EUROSTAT database, 2015.

Considering the values of the gross written premiums per capita, expressed in euros Figure 1 shows that 14 countries out of 31 correspond to gross premiums per capita between 2000 and 6000 euro, whereas 15 countries out of 31 correspond to a level of gross premiums per capita less than 1000 euro. Romania is ranked the last, with a level below 80 euro per capita. A number of 10 countries out of 31 have gross premiums per capita below 500 euro.

The inequality between the level of development proves to be very significant if we take into account the gross written life premiums per capita, presented in Figure 2. Therefore, it is worth mentioning that a group of 7 countries out of 31 have gross written life premiums per capita below 50 euro, which represents 5% of the lower level of the group consisting of the 13 most developed countries.

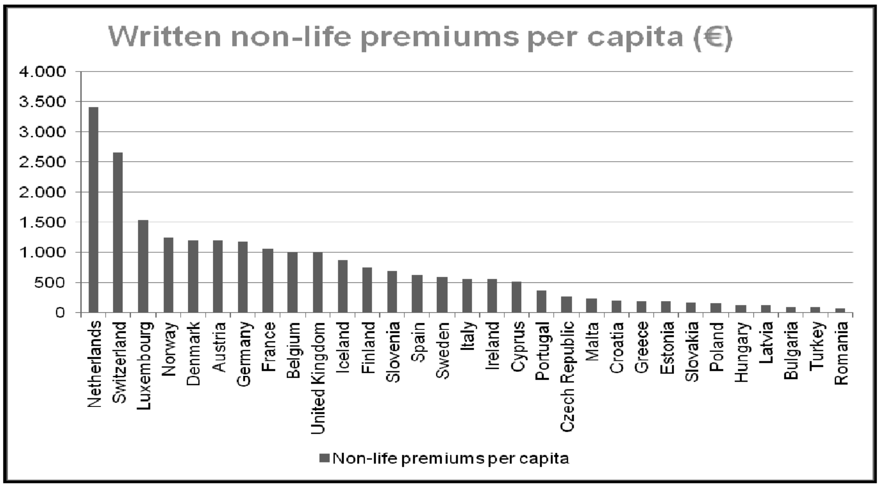
Figure 2. Comparative study: Gross written life premiums per capita in European countries in 2013 (in euros)



Source: processed by the author using EUROSTAT database, 2015.

The comparison regarding the level of gross written non-life premiums, presented in Figure 3, reveals a group of 2 countries with values between 2500 and 3500 euros, a middle group, composed by 15 countries between 500 and 1500 euros and a group of 10 countries with less than 200 euros. Romania is ranked the last.

Figure 3. Comparative study: Gross written non-life premiums per capita in European countries in 2013 (in euro)



Source: processed by the author using EUROSTAT database, 2015.

The results obtained prove a positive correlation between the economic development and the development of the insurance sector in European countries.

3. Recent evolution of the Romanian insurance market

A number of 36 authorized insurance companies are registered in Romania in 2015, from which 20 non-life insurance companies, 8 life insurance companies and 8 life and non-life insurance companies. Also, there are branches of 10 European Union insurance companies operating in Romania.

The values of gross premiums per capita in Romania for life, non-life and total of insurance services corresponding to the period 2004-2013 are presented in Table 1.

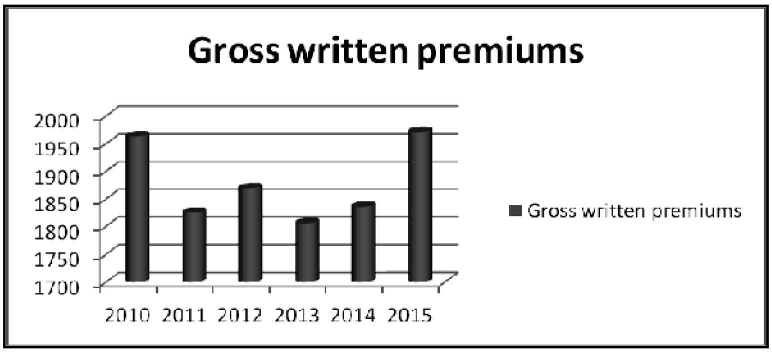
Table 1 – Gross written insurance premiums in Romania in 2004-2013

Year	2010	2011	2012	2013	2014	2015
Gross written premiums (millions RON)	1964	1825	1870	1806	1837	1972

Source: Financial Authority Supervisory Report, 2015.

Figure 4 plots the evolution of gross written insurance premiums in Romania corresponding to the first trimester of every year during 2010-2015 period. This graph shows an important decrease in the gross written premiums between 2010 and 2011, because of the crisis impact, followed by slight variations during 2011-2014 and an increasing trend in the last year.

Figure 4. Evolution of gross written insurance premiums in Romania



Source: processed by the author based on Financial Authority Supervisory Report, 2015.

The weights of the gross written life and non-life insurance premiums in Romania corresponding to the first quarter of every year in the period 2010-2015 are presented in Table 2.

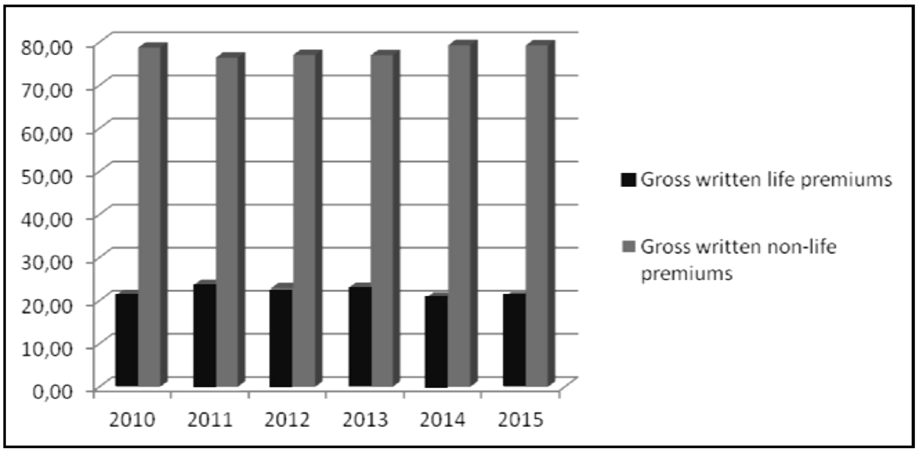
Table 2 – Gross written life and non-life premiums in Romania in 2010-2015

Year	2010	2011	2012	2013	2014	2015
Weights of gross written life premiums (millions RON)	1964	1825	1870	1806	1837	1972
Weights of gross written life premiums (millions RON)	6.54	10.80	12.38	19.59	22.50	11.20

Source: Financial Authority Supervisory Report, 2015.

Figure 5 presents the evolution of the weights of the gross written life and non-life insurance premiums during the period 2010-2015, showing no significant changes in this respect.

Figure 5. Evolution of the weights of the gross written life and non-life premiums in Romania



Source: processed by the author based on Financial Authority Supervisory Report, 2015.

The gross premiums per capita in Romania for life, non-life and total of insurance services corresponding to the period 2004-2013 are presented in Table 3.

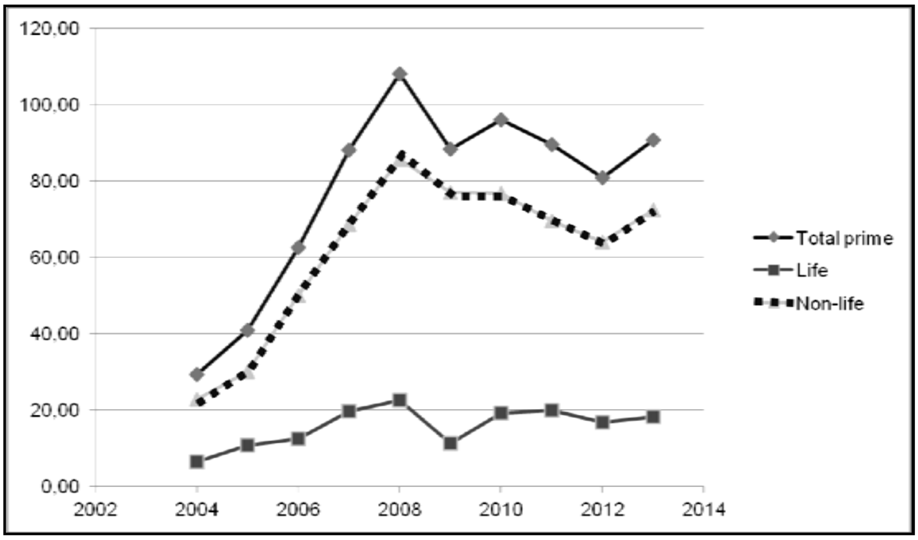
Table 3 – Gross premiums per capita in Romania in 2004-2013 (euro)

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Gross premiums	29.35	40.96	62.56	88.22	108.26	88.35	96.02	89.57	80.91	90.77
Life	6.54	10.80	12.38	19.59	22.50	11.20	19.26	19.91	16.87	18.26
Non-life	22.81	30.16	50.18	68.64	85.75	77.15	76.76	69.67	64.04	72.51
Population (thousands)	21,521	21,382	21,257	21,131	20,635	20,440	20,295	20,199	20,096	20,020

Source: processed by the author using EUROSTAT database, 2015.

Using the results from Table 3 we can study the evolution of gross written premiums per capita in Romania during the time horizon analyzed, as presented in Figure 6.

Figure 6. The evolution of gross written premiums per capita in Romania during 2004-2013 (in euro)



Source: processed by the author using EUROSTAT database, 2015.

The insurance sector in România followed a decreasing trend in 2013. Taking into consideration the increasing economic development, it determined further diminution in the financial intermediation, calculated as the weight of gross written premiums in GDP. The insurance market is still characterized by high concentration, even higher in the sector of non-life insurance. The profitability of insurance companies decreased in 2013, as a result of the financial results deterioration in the non-life insurance segment, despite of the reduction in the ratio of the claims paid to the gross written premiums for this sector during the last five years.

4. Expected performance and impact of Solvency II Directive

The experience acquired during the most recent crisis, which had a lot of negative consequences, resulted in the need to reform the financial system. The post-crisis measures adopted incorporate technical reforms of risk management in the insurance market. The achievement of this objective, which consists in the reform of the financial system, requires the development of new methods, models and techniques for risk assessment. Also, in order to improve the overall supervision of the financial system and to identify new risks in a timely mode, it is necessary to make use of new technological developments in the field of information technology and communications.

The Solvency II Directive is a wide-range strategic project, which aims to draw up a single set of rules for all insurers, reinsurers and supervision authorities within the internal European market. The goal of implementing this project is to improve the risk assessment, risk management and the evaluation of the solvency capital requirement, to harmonize and to establish uniform supervision practices throughout internal markets, and also to ensure that the management of insurance companies act responsibly and according to the legislation. The Solvency II Directive proposes a complex approach to solvency, determined by the realities of the present practices within the financial world and of the complexity of risks assumed by insurance companies in the course of their activities.

The legal framework regarding the new solvency regime Solvency II and the Directive 2009/138/EC, respectively has been adopted by the European Parliament on April 22, 2009 and by the Economic and Financial Affairs Council (ECOFIN) on May 5, 2009. The Directive 2013/58/EU of December 11, 2013, which introduces some modifications on the Directive 2009/138/EC Solvency II regarding the date of transposition into national legislation and the date of enforcing the new regulation and supervision directive for the insurance industry in the European Union will come into force on January 1, 2016. The Directive 2014/51/EU of the European Parliament and of the Council of April 16, 2014 regarding the modification of the Directives 2003/71/CE and 2009/138/CE and of the European Commission Regulations no. 1060/2009, 1094/2010 and 1095/2010 regarding the competencies of the European supervision authority, European Insurance and Occupational Pensions Authority and of the European Securities and Market Authority was published on May 22, 2014 in the Official Journal of the European Union no. L157/1. This directive states the obligation of the member countries to transpose the Directive 2009/138/EC and the Directive 2014/51/EU into the national legislation until March 31, 2015.

Solvency II introduces a risk-based capital framework and harmonised EU-wide insurance regulation built around three pillars: valuation and capital requirements; risk and governance; and reporting and disclosure (Pereira, 2015).

The achievement of the objectives of Solvency II Directive requires a rigorous methodological approach to the management of risks. We will analyze the key components of this directive in order to prove the importance of the implementation of Solvency II Directive. According to its provisions, the insurance companies can use a standard model or their own internal models, which will enable them to meet the capital requirements appropriate to their business models and informational models. Also, the Directive mentions that it a wide, all inclusive and well founded process is necessary for building the internal models, based on transparent procedures which are backed by clear, rigorous and properly documented procedures, showing the hypotheses and the interpretation of the results.

Solvency II requires insurers to address all the foreseeable risks that may affect their business structure. However, the shift from Solvency I to Solvency II is not only about capital requirements; it rather is an evolutionary process that requires a change in the behavior of the insurance industry. These regulations will have a mixed impact on key insurance sections in the short run, with life and non-life insurance receiving most of the negative shock and reinsurance businesses receiving a boost. Solvency II rules will also put tremendous pressure on current resources of the insurance firms and will escalate their costs; however, carefully implementing these norms will offer several opportunities that can be exploited upon to increase profitability. Moreover, it will reduce volatility in the insurance sector and offer a business environment that is encouraging for operations in the long run.

Solvency II provides an opportunity for insurers and their asset managers to improve transparency and decision making, to optimise exposure to risks, enhance investment performance and achieve a higher return on capital. After implementation, the Solvency II framework will require supervision in order to avoid failure in detecting fundamental risks or inappropriate models, assumptions or risk calibration that could introduce biases leading or pro-cyclical investment decisions (Pereira, 2015).

5. Conclusions

The implementation of the Solvency II Directive requires to develop rigorous models, based on relevant and appropriate statistical and actuarial methods. These models should be based on efficient quantitative methods for estimating the probability distribution of the indices analyzed, appropriate risk measures and effective estimation and optimization techniques. The application of the latest technological achievements to communications in order to identify new risks is integral to the effective overall supervision of the financial system. Technical and methodological approaches will give substance to these objectives, in order to enable their effective implementation in various specific insurance fields, in accordance with the Solvency II Directive. The accomplishment of these objectives will be based on the latest research developments, by a willingness to innovate and take the greatest advantage of the information and communication technology. Since the insurance industry plays an important role in economy and society, it is essential that there is trust in insurance companies. The harmonization of the regulations governing the insurance industry in the European Union will help to create a unified single market, with potential benefits for clients, through increasing competitiveness, innovation, professionalism, transparency and flexibility. If appropriately implemented, Solvency II Directive will fundamentally reshape the insurance and the reinsurance industry, resulting in higher economic performance, as well as important contributions to the field of research and innovation in the broader context of the Horizon 2020 Programme.

Acknowledgement

This paper has been financially supported within the project "Horizon 2020 - Doctoral and Postdoctoral Studies: Promoting the National Interest through Excellence, Competitiveness and Responsibility in the Field of Romanian Fundamental and Applied Scientific Research", contract number POSDRU/ 159/1.5/S/140106. This project is co-financed by European Social Fund through Sectoral Operational Programme for Human Resources Development 2007-2013. Investing in people!

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