CRISIS EFFECTS TO INSURANCE MARKET

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Abstract: *The economic crisis affects all financial system components, including insurance system, which is an important component. There are three types of financial crises: currency crises, banking crises and debt crises. The term insurance crisis is, in our opinion, different in its effects from economic crises in insurance industry. Economic crisis affects the insurance industry because of the insurance integration in financial system components and their interrelations. There was a delimitation between insurance, banking and financial markets, but we see nowadays, in the context of globalization, a major interaction between these fields (bank assurance and unit-linked insurance products are just a few examples). Actual paper wants to emphasize the evolution of the Romanian and some European countries' insurance market during the recent financial crises. In this approach, we consider that the situation that characterizes the entire economy and financial system, it is also valid for insurance market and insurance system. Our research refers goal to some comparisons with the evolution of the European insurance system and market and Romania focusing the analyse on some important indicators such Insurance Density, Insurance Penetration Rate, total Growth Premium, Gross Written Premium. The effects of crisis on insurance market (life section) are highlighted through a linear regression panel data (from EUROSTAT database 2002-2010).*
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LITERATURE REVIEW

A review of economic literature suggests that there are also multiple definitions of financial crisis and channels that influence the insurance industry and market. A reliable definition is provided by *SwissRe* that define financial crisis as "the collapse of a country's financial system with serious effects on the real economy, caused by economic imbalances and/or political uncertainty. There are three types of financial crises: currency crises, banking crises and debt crises"(Swiss Re, 2009).

During time there have been a number of disturbances in insurance markets that were named "crises" (Blundell *et al*., 2008). A first example that is, some periods characterized by the failure (or near failure) of one or a number of insurance firms, reduction in the supply of insurance and significant disruption of economic activity in the 1984–1986 in U.S. These events were called "liability insurance crisis", during which U.S. property/casualty insurers made huge losses and insolvencies became commonplace.

The collapse of the 300-year-old Lloyd's insurance market in the early 1990s provides or shortage in terrorism cover following the events of 11 September 2001 is other examples of a major disruption in the insurance industry. These types of crises are not though the subject of our enquiry.

Financial crises occurred periodically, well known being Mexico's Tequila Crisis (1994-1995, currency and banking crises), Asian Crisis (1997/1998 currency and banking crises) and The Tango Crisis – Argentina (2001/2002) .

Crisis affects all financial subsystems, but its trigger can be found in financial relations and mostly fiscal ones, (Oprea, Bilan, Stoica, 2012), including central and local levels (Oprea, 2011) and (Cigu, 2011). Crises affects public sector and its efficiency (Zugravu, Sava, 2012) with important implications on public revenues and expenditures (Fîrțescu, 2010 and Petrișor, 2012), insurance (Bențe, 2010), foreign direct investments (Martin *et al*., 2012) and capacity of absorption for European funds (Droj, 2010). In terms of human resources management practices show a poor concern for entrepreneur's for a real labor exploitation in Romania. Financial and legal factors are most difficult to overcome; as a result, the potential human is a key target for small and medium entrepreneurs (OECD, 2009).

Some recent papers (Baluch, Mutenga, Parsons, 2011) suggest the term insurance crisis, which, in our opinion is different from the effects of economic crises in insurance industry. Of course, an economic crises affects the insurance industry because of the insurance integration in financial system components (see above) and their interrelations. Even if, historically speaking, there was a delimitation between insurance, banking and financial markets, we see nowadays, in the context of globalization, a major interaction between these fields (bank assurance and unit-linked insurance products are just a few examples).

Economic literature reveals some conclusions about crisis effects on insurance. The economic impact of financial crises usually results in declines of economic output, the depreciation of currencies, increasing inflation and interest rates, and stock market crashes. During a debt crisis, defaults on government debt arises (Swiss Re, 2009). The effects of a financial crisis on an insurance market are multiple: demand for insurance drops, resulting in a decline in new business; increase in lapses of savings-oriented life insurance policies; premiums usually lag behind inflation; claims increase promptly as a result of higher prices; insurers report negative technical results. Some lessons can be learned from actual and previous crises. Insurers should take into consideration: strengthen risk management and supervision; use and understandable risk management; taken into discussion risk models and non-linearity; take heed of the lessons from agency and portfolio theory; financial conglomerates need to be supervised at the group level (Elinga and Schmeiser, 2010).

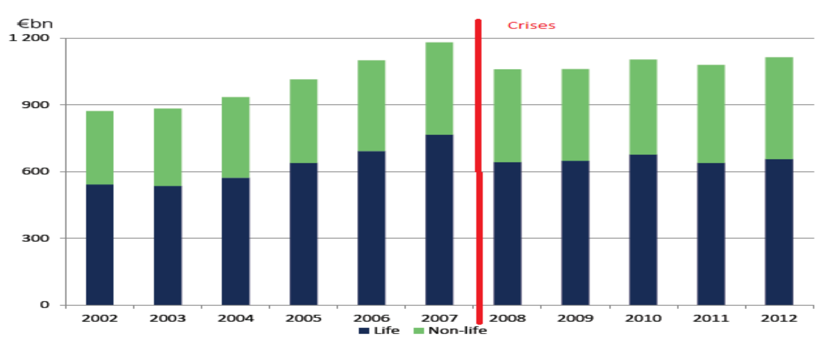
INSURANCE MARKET AND INSURANCE SYSTEM INDICATORS - EVOLUTION DURING CRISIS

In 2011, the European insurance market has 36% share of the global market followed by North America (29%) and Asia (28%), suggesting the importance of

European market insurance in the economy on all components in 2011: life insurers paid out about €615bn in benefits; non-life insurers paid out more than €305bn in claims, of which about €100bn was for motor insurance, circa €85bn for health insurance and in excess of €55bn for property insurance claims; around a quarter of EU citizens are covered by private medical insurance; European insurers had more than €7 700bn invested in the global economy, an equivalent to 55% of the GDP of the European Union; the European insurance industry employs approximately 950 000 people directly. All facts suggests that crisis in insurance market has important effects on other financial or non-financial economic sectors. In 2012, total gross written premiums in Europe grew 1.6% in 2012 to €1 114bn. In life, which accounts for almost 60% of all premiums, the declining trend of 2011 was reversed, whereas in non-life a steady increase of almost 3% is estimated. The most important markets continue to be the UK, France, Germany and Italy, which have around 70% of total life premiums in Europe. Data indicate that the European insurance industry that was eroded by the economic crisis in 2008, recovered in terms of total premiums subscribed. Total premiums increased with 2.9% (constant exchange rates) to € 1 057bn, driven mainly by the life sector, that has more than 60% of all premiums and, compared to earlier year, the total amount of premiums decreased by more than 6%. The evolution is presented in Figure 1

After a sharp decline in 2008 due to financial crisis, on the European life insurance market were expected to reach € 647 bn in 2009, which corresponds to a 4.7% increase over the previous year. After an increase of almost 3% in 2008, non-life insurance premiums decreased moderately in 2009 to € 409bn from € 417bn, being for the first time in the last decade, that from year to year growth rate of current was negative. Following the recovery of capital markets in the second half of 2012, European insurers' total investment portfolio, estimated at market value, is expected to grow from almost €7700bn in 2011 to almost €8500bn in 2012.

Figure 1 Evolution of total gross written premium life and non-life in Europe during Crisis



Source: from data in ***, Report on the Romanian Insurance market and the insurance Supervision in 2012, p.

INSURANCE CRISIS IN ROMANIA

Total gross premiums written by insurance undertakings in 2010 on both insurance categories reached 8,305,402,152 lei, down in nominal terms by 6.36% compared with the previous year, with a real rate pointed to 13.26% in real terms, considering the impact of inflation (see table 1). In 2012, gross written premiums for both non-life and life insurance amounted to an aggregated total of 8,256,914,950 lei – 434,604,998 lei more than in 2011, i.e. 5.56% up in nominal terms and 0.58% up in real terms. The Romanian insurance market still relies heavily on the motor insurance segment, given that 62.81% of gross written premiums for non-life insurance are generated in this particular insurance class.

Year	Gross written premiums	Increase in nominal terms compared with the previous year	Inflation rate	Increase in real terms compared with the previous year
	(lei)	(%)	(%)	(%)
2006	5,729,284,541	29.70	4.8	23.68
2007	7,175,789,699	25.25	6.57	17.53
2008	8,936,286,505	24.53	6.3	17.15
2009	8,869,746,957	-0.74	4.74	-5.23
2010	8,305,402,152	-6.36	7.96	-13.26
2011	7,822,309,952	-5.82	5.8	-10.98
2012	8,256,914,950	5.56	4.95	0.58

Source: ***, Report on the Romanian Insurance market and the insurance Supervision in 2012, p.9

In 2010, the gross premiums written by domestic insurance undertakings in other EU Member States were slightly higher than the gross premiums written in Romania by the branches of insurance undertakings authorized in other Member States, on the basis of the freedom of establishment (CSA, 2011). The drop in the volume of gross written premiums combined with the increase in current price GDP has led to a slight fall down in the insurance penetration rate in 2010, as shown below. All data suggest that in Romania the effects of economic crisis were strong (13% decrease in real terms in 2010 and 5% in 2009), due by influence of general economic factors, such inflation, depreciation of exchange rate, but also specific factors such the drop of insurance contracts from companies and people, the diminution of ages, income, the decrease of leasing market and so on.

The drop in the volume of gross written premiums combined with the increase in current price GDP has led to a slight fall down in the insurance penetration rate in 2010. Thus, the insurance penetration rate (the ratio between gross written premiums and GDP) was 1.62%, with 0.18% lower than in 2009. It was the first year of lower insurance penetration rate, considering that by 2010, this indicator had been on a consistent upward trend.

The insurance penetration rate, determined as the ratio between gross written premiums for non-life and life insurance and GDP, was 1.40% - 0.05 % more than in 2011. The non-life insurance penetration rate was 1.10%, - 0.05 % more than in 2011, while the life insurance penetration rate was 0.30% - the same as in 2011.

Indicator	2003	2004	2005	2006	2007	2008	2009	2010
Insurance Penetration Rate (%)	1,41	1,46	1,54	1,67	1,77	1,77	1,80	1,62
Insurance Density (lei/inhabitant)	123	160,4_	204_	265,7	332,4	415,62	413,27	387,85

Source: ***, Report on the Romanian Insurance market and the insurance Supervision in 2012, p.11

According to the data, in 2012 there were a total of 15,379,627 in force insurance contracts, compared to 2011 (15,361,480 contracts). Insurance undertakings reported 11,827,799 in force non-life insurance contracts, which mean 76.91% of total, with 64,207 non-life insurance contracts more than in 2011. Insurance undertakings also reported 3,551,828 in force life insurance contracts, which represent 23.09% of total with 46,060 life insurance contracts less than 2011. According to the data, the number of employees in Romania in 2012 was 6,230,000, of which 0.19% were employed in the insurance sector (***, *Report on the Romanian Insurance market and the insurance Supervision in 2012*, p.11-13, www.csa-isc.ro).

INFLUENCE FACTORS ON EUROPEAN LIFE INSURANCE MARKET

Methodology and Data Description

The objectives is to analyse some influence factors from life European insurance market such *Number of enterprises (line), Number of persons employed (linpe)* and *Personnel costs (lipc)* on dependent variable *Life Insurance Gross direct premiums written.*

Data used in model are from the Eurostat database (indicator sbs_5a,http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database). The equation is stated below:

ligdpw [Country, Year] = a + X(lipc, line, linpe) b + u[country], where X refers to variables.

The description of dependent and independent variables is stated in Table 1.

Table 1 Summarize of model variables

Variable	Obs	Mean	Std. Dev.	Min	Max
time	300	2006.5	2.87708	2002	2011
ligdpw	290	50.12414	55.60611	1	168
line	290	16.95862	17.37591	1	57
lipc	290	43.23793	49.05941	1	149
linpe	290	47.22759	52.64068	1	160

Regression Analyses and Results

To estimate the effects of the independent variables we run two linear regression (default standard error and robust) and two panel data regression (default standard error and robust), finding that No of enterprises and No of persons employed are statistically significant (p<0.001) on robust estimation data panel regression (4^{th} model in table with minimal BIC). The results are in concordance with economic theory, meaning that an increase in number of insurance enterprises and number of persons employed in insurance industry are increasing gross direct premium written. Results of the panel regression and data panel regression (set as Country, Year) are presented in Table 2.

Table 2 Results of linear regression and data panel regression

	Linear Reg~n b/se	Linear Reg~t b/se	Panel Data~n b/se	Panel Data~t b/se
LI No of enterprises	0.729***	0.729***	0.877***	0.877**
	(0.17)	(0.18)	(0.19)	(0.26)
LI Personnel costs	0.293***	0.293***	0.200*	0.200
	(0.07)	(0.08)	(0.08)	(0.10)
LI No persons empl~d	0.263***	0.263***	0.313***	0.313***
	(0.07)	(0.07)	(0.07)	(0.08)
constant	12.631**	12.631***	11.797**	11.797*
	(4.00)	(2.57)	(4.09)	(4.40)
R-sqr	0.360	0.360	0.338	0.338
dfres	286	286	258	28
BIC	3045.8	3045.8	2941.2	2935.5

* p<0.05, ** p<0.01, *** p<0.001

CONCLUSIONS

We conclude that crisis expand major risks that affects the insurers, such as: a rise in interest rates; currency devaluation; decline in property prices; the increasing of credit risk (incl. government default); fall in stock markets; higher inflation; expansion of political risk. Some influence factors as Number of enterprises, Number of persons employed analysed through linear and panel data regressions are statistically significant, an increase of these variables boosting the life insurance market.

Some lessons can be learned from actual and previous crises, that insurers should take into consideration some actions: strengthen risk management and supervision; use and understand risk management; take heed of the lessons from agency and portfolio theory; introduction of supervision to financial conglomerates that need to be supervised at the group level.

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