DETERMINANTS OF FINANCIAL PERFORMANCE OF THE INSURANCE COMPANIES: A CASE OF ALBANIA

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Abstract

Objective of the study is to explore the factors that affect financial performance of Albanian Insurance Companies. The financial performance of insurance companies is analyzed at microeconomic level and by specific characteristics of the company. The study population consisted of 5 insurance companies with private capital, during the period 2008-2013 with a total of 30 data. The investigation uses cross-sectional time series data which are collected from the Balance Sheet Annual Reports, the official document delivered to the State Tax Office. Also same of the data are collected from the web sites of the insurance companies. The results showed that leverage (total debt to total assets) and risk (standard deviation of sales to average value of sales) have negative impact and tangibility (fixed assets to total assets) has positive impact on the financial performance (ROA) of these companies.

Keywords: Insurance companies, performance, panel data, Variance Inflation Factor

INTRODUCTION

The performance of the businesses is very important because it leads towards the growth of the whole sector where it is involved and of the overall prosperity of the economy. Profitability, defined as proxy of financial performance, is one of the main objectives of insurance companies' management (Burca & Batrinca, 2014). Discussing and analyzing the determinants of performance of insurance companies, is considered important in the corporate finance literature because of their role as intermediaries. These companies provide the mechanism of risk transfer and also these institutions channelize the funds to support the business activities in the economy. However, it has received little attention particularly in Albania. There are studies on insurance schemes in Albania (Sinaj et al., 2014), role and evolution of insurance industry

(Sharku et al., 2011), management on insurance companies (Kume & Xhuka, 2010), but there isn't any prior research on the factors that determine insurance profitability.

The activity of institutions companies in Albania is based on law no. 8081, "On insurance and re-insurance activity" dated 07.03.1996 (AMF, 2013, 11). The first insurance company Insig (The Institute of Health Insurance) was established in 1948. There was a merger between Health Insurance and The Savings Bank in 1954 and the two institutions mentioned above were separated again in 1991 (Kume & Xhuka, 2010, 96). From 2012 there are eight non-life insurance companies, three life insurance companies and two which operate in the two sectors (Insig and Sigal). In 1999 there were only 3 insurance companies with premium per capital equal to 562 ALL in 1999 and 1.224 ALL in 2003 (AMF, 2003)

This study is focused on providing empirical evidence on the relationship between the performance of insurance companies in Albania and five independent variables (leverage, tangibility, flexibility, size and risk). Other empirical studies on business performance have focused mainly on large firms and on listed companies. The data has been retrieved from the Balance Sheet Annual Reports, the official document delivered to the State Tax Office and from the web sites of the insurance companies. A sample of 5 insurance companies over a six year period, 2008-2013, is used in the analysis and in lack of an active stock market we have taken only accounting measures to estimate the performance of each firm.

The rest of this paper is organized as follows: the next section is literature review on the issue discussed; the third section describes facts, data and methodology used. The forth section is hypotheses development, regression model and results. The last section summarizes some of our findings.

LITERATURE REVIEW

There are not many research papers on business performance in insurance industry and most of the papers on financial performance are focused on banks and listed companies. Most of the studies on performance in insurance industry are recent, being performed after 2000. The financial analysis of a company is an important tool used by actuaries in the process of decision-making on underwriting and investment activities of the insurance company (Burca & Batrinca, 2014).

Several studies on firm's profitability have provided empirical evidence on a negative relationship between leverage and performance (Myers, 1984; Titman & Wessels, 1988; Rajan & Zingales, 1995). Titman & Wessels (1988) used data covering the 1974 to 1982 time period in U.S. They found evidence on the importance of transaction costs proving the negative relation between measures of profitability and debt levels.

There are several other studies that indicate a positive relationship between financing choices and firm performance (Gosh et al., 2000; Frank & Goyal, 2003). Some of the recent studies show that leverage has a significant negative relation with firm performance measured both in accounting and market terms (Zeitun & Tian, 2007). Zeitun & Tian (2007) study of 167 traded Jordan companies during 1989-2003 used ROE, ROA, and PROF (earnings before interest and tax plus depreciation to total assets) as accounting measures and found that short-term debt decreases a firm's performance. Onaolapo & Kajola (2010) suggest that debt ratio has a significantly negative impact on the firm's performance measures (ROA and ROE).

Burca & Batrinca (2014) study, in order to determine the factors that influence the financial performance (return on total assets ratio) in the Romanian insurance market during the interval 2008-2012, tested 13 explanatory variables: insurance financial leverage, company size, number of years since the company operates in the Romanian market, growth of gross written premiums, equity, total market share, diversification, underwriting risk, investment ratio, reinsurance dependence, retained risk ratio, solvency margin and growth of GDP per capita. The study found that there is a positive relationship between size and financial performance, since larger firms have more resources, a better risk diversification, complex information systems and a better expenses management. The linkage between the growth of gross written premiums and insurers' financial performance is not positive, as expected, as in some cases, an excessive growth of underwritings generates a higher underwriting risk and the necessity to increase the volume of technical reserves. The underwriting risk emphasizes the efficiency of the insurer's underwriting activity and it is measured through the loss rate, which is computed as a ratio of gross claims to gross written premiums.

Omondi & Muturi (2013) study was focused on 29 listed firms (excluding listed banks and insurance companies) which have been operating at the Nairobi securities exchange during the period 2006-2012. The study suggests that leverage (ratio of debt-equity) has a significant negative effect on financial performance (ROA). The study also provides evidence to infer that liquidity (current assets over current liabilities) play an important role in improving the firm's financial performance. Based on research findings, the study concluded that company size has a significant positive effect on financial performance.

Almajali et al. (2012) study investigates the factors that affect financial performance of Jordanian Insurance Companies. The study population consisted of all insurance companies listed at Amman Stock Exchange during the period (2002-2007) which count (25) insurance company. The data was analyzed by using basic statistical techniques such as T-test and multiple regressions. The results showed that the following variables (leverage, liquidity, size,

management competence index) have a positive statistical effect on the financial performance of Jordanian Insurance Companies.

RESEARCH METHODOLOGY

Actually into the Albanian insurance market operate eight non-life insurance companies which are: Insig, Sigma Interalbanian Vienna Insurance Group, Sigal Uniga Group Austria, Atlantik, Intersig Vienna Insurance Group, Albsig, Eurosig and Ansig; three life insurance companies: Insig, Sicred and Sigal Life Uniqa Group Austria and only one reinsurance company which is Sigal Uniqa Reinsurance Group Austria (AMF, 2015). Insig is the only fully state owned insurance company which operates from more than 20 years in the Albanian market and carries out activities in classes of non-life and life, which is established in 1991 and the other companies are established after the year 1999. Ansig is the last company which operates into this industry from 2012.

In the year 2012 approximately €1.843 per capita was spent on insurance in the 32 full member countries of Insurance Europe. But the insurance density figures differ significantly around Europe, ranging from less than €100 in Romania to almost €6.000 in Switzerland (Insurance Europe, 2014). Despite this expansion, the insurance penetration rate (gross written premium in percentage of GDP) remains low at 0.67%, slightly higher than a year ago (0.62%). On the other hand, the report damage to net premiums of non-life insurance, though at a low level of 35.77%, increased by 15.9% compared to the same period of the previous year (Albanian Financial Supervisory Authority, 2014). Average insurance penetration in Europe was 7.7% in 2011 and 7.6% in 2012 (Insurance Europe, 2014, 17).

During 2013, the number of companies that conducted insurance activities remained unchanged, while their activity shrank. Gross written premiums for 2013 rate reached 8.54 billion ALL, decreasing by approximately 4.61% compared with 2012. The market continued to remain oriented to non-life insurance services, which brought about 88.13% of the volume of total gross written premiums in this market. While life insurance brought in 24.11% of the total volume of gross written premiums. During this year, voluntary insurance took 54.72% of the total gross written premiums in the insurance market and the total amounts of primes for the hole sector was 60.870.000 Euro in 2013 or 4.61% lower than in 2012 (AMF, 2013, 14). In 2003 the volume of gross premiums receivable resulted 3.755,09 million ALL versus 3.803,74 million ALL in 2002, or 28.1% lower (AMF, 2003, 16). The report damage to premiums for the Albanian market of non-life insurance has been 49.87% (AMF, 2013).

During 2014, total assets of the insurance market represented about 56.2% of the financial markets under supervision. The activity of the insurance market has expanded

compared with 2013, as measured by gross written premiums, which have reached 8.95 billion, approximately 9% higher than a year ago and the ratio between compulsory insurance and voluntary was around (51.1%: 48.9% in 2012 versus 45%: 55% in 2011). The average premium per capita was about 3.172 ALL (22.8 Euros) or 261 ALL more than in 2011, most of which, over 88%, continues to be spent on non-life insurance. Also according to the Economy of Commission of the Republic of Albania (2014), during the year 2014 the insurance market experienced an increase by 36.19% compared to year 2013. Gross insurance premiums amount to 11.624.285 thousand ALL, increasing by 3.088.810 thousand ALL. The number of insurance policies reached 1.032.554, which indicates an increase by 3.69% compared to the year 2013. Gross insurance premiums in non-life insurance business reached the value of 10.570.462 thousand ALL, which indicates an increase by 40.53% compared with the year 2013. The number of non-life insurance policies reached 1.026.588, which is 6.93% more than the year 2013.

Depending on data availability, this study is based on data collected from 5 insurance companies (Sigma Interalbanian Vienna Insurance Group, Sicred, Sigal Uniga Group Austria, Eurosig, Intersig Vienna Insurance Group) which operate in Albania. The data are collected from the annual reports published online from the insurers' and from the annual reports delivered to the State Office of Tax during the six year period 2008-2013. The average value of total assets of the sample selected is approximately 2.477.017.416 ALL (ALL is an acronym for Albanian Lek, Albanian's currency) or 17.692.982 Euro (we note that the exchange rate is roughly 140 ALL/Euro).

In order to determine the factors that determine the financial performance in the Albanian insurance market during the period 2008-2013, five explanatory variables were tested: insurance financial leverage, tangibility, flexibility and company size and company risk. The study uses multiple regression analysis to test ROA (return on assets) as dependent variable against the above mentioned five independent variables. The econometric functional model used was performed with Gretl (2012).

Several studies have used different accounting measures (ROA and ROE) as well as market measures (Tobin's Q, market value of equity to the book value of equity) to identify the firms' performance (Zeitun & Tian, 2007; Onaolapo & Kajola, 2010), but in this study we have used only return on asset (ROA) as a measure of business performance. We use accounting data as we are not able to operate with market measures in absence of financial markets in Albania.

Hypotheses

H1: There is a negative relationship between leverage in insurance and ROA.

H2: There is a positive relationship between company tangibility and ROA.

H3: There is a positive relationship between company flexibility and ROA.

H4: There is a positive relationship between company size and ROA.

H5: There is a negative relationship between company risk and ROA.

Proposed Econometric model

We use a simple multiple regression analysis to test ROA as dependent variable against the above mentioned independent variables. Based on these hypotheses, the multiple regression of the econometric model through which the financial performance of the insurance companies in Albania is:

$$ROA = \alpha 0 + \alpha 1 * TDTA + \alpha 2 * TANG + \alpha 3 * FLEX + \alpha 4 * SIZE + \alpha 5 * RISK + \varepsilon$$

Where the independent variables used in the analysis are:

TDTA = Total debt to total assets.

TANG = Fixed assets to total assets.

FLEX = Monetary assets to total assets.

SIZE = Natural logarithm of total assets.

RISK = Standard deviation of EBIT to average value of EBIT.

And the dependent variable is:

ROA (Return on asset) = Earnings after taxes to total assets.

ANALYSIS & RESULTS

In this part of the study are analyzed the correlation coefficients between the variables, summery statistics, the multicollinearity problem, which indicate if there is a strong correlation between the variables and the regression results.

Table 1: Correlation coefficients

Using the observations 1:1 - 5:8 - 5% critical value (two-tailed) = 0.3120 for n = 40.

ROA	TDTA	TANG	FLEX	SIZE	RISK	
1.0000	-0.5864	0.0955	0.4296	-0.0080	-0.1784	ROA
	1.0000	-0.0345	-0.6750	0.5163	-0.1035	TDTA
		1.0000	0.0798	0.0682	0.5901	TANG
			1.0000	-0.2972	0.0187	FLEX
				1.0000	-0.2813	SIZE
					1.0000	RISK

Table 1 shows the correlation between the explanatory variables specifically with respect to ROA. As we can notice ROA is negatively correlated with TDTA (58.64 percent) and RISK (17.84 percent) but has a weak negative correlation with SIZE (0.8 percent). Also it is demonstrated that ROA is positively correlated with FLEX (42.96 percent) and has a weak positive correlation with TANG (9.55 percent).

Table 2: Summary statistics, using the observations 1:1 - 5:8

Variable	Mean	Median	Minimum	Maximum	Std. Dev.	C.V.
ROA	0.0320	0.02818	-0.1241	0.1340	0.0485	1.5148
TDTA	0.4526	0.5035	0.0308	0.7665	0.1892	0.4181
TANG	0.1758	0.1712	0.0276	0.4310	0.0994	0.5655
FLEX	0.1451	0.0418	0.0076	0.6554	0.2189	1.5092
SIZE	21.1148	21.1242	19.2298	23.0623	1.0222	0.0484
RISK	0.4065	0.3624	0.3069	0.5803	0.1016	0.2499

Note: ROA = the return on assets; TDTA = total debt to total assets; TANG = fixed assets to total assets; FLEX= Monetary assets to total assets; SIZE = Natural logarithm of total assets; RISK= standard deviation of EBIT to average value of EBIT.

Table 2 reports summary statistics for the variables used in our study. It shows that the average return on assets (ROA) for the sample as a whole is 0.0320, of TDTA is 0.4526, of TANG is 0.1758, of FLEX is 0.1451 and of RISK is 0.4065.

Prior to design panel data models, it is necessary to verify the problem of multicollinearity between independent variables (Burca and Batrinca, 2014, p. 304). The Variance Inflation Factor (VIF) is a commonly used for testing the multicollinearity problems. It shows the degree to which each independent variable is explained by other independent variable. As a rule of thumb, a VIF greater than 10 indicates the presence of harmful collinearity (Gujarati, 2003).

Table 3: Multicollinearity analysis of the variables selected

Variable	VIF
TDTA	2.545
TANG	1.016
FLEX	1.866
SIZE	1.643
RISK	1.285

Table 4 shows the Variance Inflation Factor (VIF) of all the variables of this study. The results show that VIF for all the variables are less than 10 and the problem of multicollinearity is not present into the model.

Employing panel data (cross pooled sectional data) analysis (Gujarati, 2004) and using Gretl (2012) statistical package we obtain the following results:

Table 4: Results from the regression analyses

Variable	Coefficient	Std. Error	t-ratio	p-value	
const	-0.0677	0.1419	-0.4779	0.6369	
TDTA	-0.1784	0.0468	-3.8085	0.0008	***
TANG	0.1354	0.0546	2.4806	0.0202	**
FLEX	-0.0066	0.0412	-0.1614	0.8731	
SIZE	0.0099	0.0064	1.5510	0.1334	
RISK	-0.1198	0.0567	-2.1134	0.0447	**
R-squared	0.7218	Adjusted R-squared	0.6661		
F(5, 25)	12.9698	P-value (F)	2.79e-06		

*Note: *** 1% level of significance, ** 5% level of significance.*

According to Table 4, three variables are statistically significant and two are statistically insignificant. The model explains 72.18 percent of the variations of the dependent variable. The model is appropriate because F-statistic has a value of 12.9698 at a significance level of 1% and the regression obtained is:

$$ROA = -0.0677 - 0.1784 * TDTA + 0.1354 * TANG - 0.0066 * FLEX +$$

$$0.0099 * SIZE - 0.1198 * RISK + \varepsilon$$

With regard to the hypotheses tested, H1, H2 and H5 are valid; H3 and H4 are rejected because the respective variables have not significant impact on the insurers' performance.

CONCLUSIONS

The insurance sector is an important part of the financial sector and this paper examines the role that the choice of capital structure, tangibility, flexibility, size and risk has on firm performance for insurance companies in Albania. The results indicate that there is empirical evidence to show that:

a) Total debt ratio has a negative and significant relation to ROA. This result is consistent with the findings of Omondi & Muturi (2013) and Burca & Batrinca (2014) studies.

b) Tangibility has a positive and significant relation to ROA.

c) Risk has a negative and significant relation to ROA.

d) Flexibility and size are not significant determinants of the level of performance of the insurance companies. The results are not consistent with the studies of Omondi & Muturi (2013) and Burca & Batrinca (2014), which found a significant positive correlation between size and

profitability. Also Omondi & Muturi (2013) found that liquidity play an important role on improving the firm's financial performance.

Insurance companies should avoid situations of high levels of leverage since this may lead to bankruptcy if they are unable to make payment on their debt. Also firms that have high ratios of tangibility seem to have a better financial performance. Firm's risk, as expected reduces performance and insurance must be very careful on the risk they take.

The study was only limited to five factors that affect the financial performance of five companies in Albanian insurance market. Thus, more research should be done to determine other factors that may affect financial performance. Macro factors such as inflation rate and gross domestic product are recommended for future study.

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