FINANCIAL EFFICIENCY OF THE BULGARIAN GENERAL INSURANCE COMPANIES IN THE CONTEXT OF FINANCIAL CONTROLLING

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Abstract: The purpose of the article is to examine the economic efficiency of the leading insurance companies (according to the "gross premium income" criterion) from the "General Insurance" branch. The research methodology is based on leading indicators for assessing the economic efficiency of the insurance company - "operating profit margin" and "return on equity". Economic efficiency indicators are also presented in the form of an index. The main results of the article are presented in figures, with an analysis of the economic efficiency of the leading insurance companies from the "General Insurance" branch. Analysis of the data shows that the leading insurance companies are performing oppositely to the General Insurance sector averages.

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Introduction

The present study assesses the economic efficiency of the insurance company (general insurance). In the insurance sector, efficiency and proper resource utilization are crucial because they directly impact profitability, risk management, and long-term sustainability (Ilkaz & Cebi, 2024). Economic efficiency includes a certain group of indicators directly related to the profitability of the company. These are indicators such as operating profit margin, return on equity, return on invested capital. In the present study, the activities of four of the leading insurance companies in the "General Insurance" branch were evaluated based on economic efficiency indicators.

The article aims to present the target indicators of financial controlling in the company. The main target values of the financial controlling in the company are connected with summarizing indicators of economic efficiency. The article advocates the thesis that the assessment of the insurance company's activity should be given on the basis of economic efficiency indicators. The premium income of the insurer should not be considered a leading indicator, but rather a secondary one.

The relevance of this study is dictated by the need to examine the financial efficiency of the work of insurance companies operating in the "General Insurance" industry. The financial efficiency of the work of insurance companies in the "General Insurance" industry is examined in the context of financial controlling - a problem that is poorly researched in the Bulgarian literature.

The article uses information officially published by general insurance companies. The object of the study is placed solely on the economic efficiency of the work of companies in the "General Insurance" branch. All other problems related to the work of insurance companies remain outside the object of the study.

I. Problem Statement

There are a number of publications on the problems of controlling. In the Bulgarian literature, controlling is considered in the context of management, as it is aimed at coordinating the general activity of the company and achieving the previously set goals (Kamenov & Asenov, Kontroling, 2010). In the Bulgarian literature, special attention has been paid to the adaptive role of controlling in the company. Its role is to coordinate,

plan, manage and control the actions of the company's management, adapting them to changes in the environment (Iliev, 2011). The main function of controlling is related to supporting senior management in making decisions related to achieving the set goals (Iliev, 2009). Controlling in the company is primarily oriented towards supporting management in making management decisions (Petrov, 2008).

In foreign literature, controlling is considered as a tool for solving the problems related to the coordination of individual activities in the company (Horvath et al., 2020). Controlling is also seen as a process of mastering the economic situation in the company (Daile, 2001). The functions of the controller (the person involved in controlling issues in the company) are seen as mandatory to the modern style of management - a style related to delegation of authority and management by objectives (Daile, 2001). The objective function of controlling is expressed in directing all management processes towards the achievement of company goals (Shulte, 1996). The tasks of controlling include the introduction of a controlling system and the development of a system of indicators for financial analysis (Shulte, 1996).

Controlling is reflected in all spheres and activities of the company. In Western literature, there is talk of marketing-controlling, logistics controlling, personal controlling (Shulte, 1996). Controlling in the company also affects its financing. In this context, we talk about financial controlling of the company (Daile, 2001). The term "financial controlling" is also found in Bulgarian literature. However, the understanding of financial controlling in the company is broader than that given in the Western literature. In Bulgarian literature, financial controlling in the company is related to financial indicators. These indicators form the basis of the development of company budgets and serve senior management as a basis for formulating and pursuing goals (Krastev, 2022). Financial indicators can be of different nature. They can be presented as absolute values (revenue, profit) and relative values - operating profit margin, return on equity, return on invested capital. The object of research in this article are the indicators "return on equity" and "operating profit margin".

II. Data and methodology

In the process of the research, financial indicators of insurance companies from the "General Insurance" branch were used. The profitability

of the first four insurance companies, ranked according to the "premium income" criterion, was investigated. From the standpoint of financial analysis, a coefficient analysis of the profitability of the insurance company was made. Indicators were used to evaluate the operational activity of the insurance company - operating profit margin, as well as a general indicator of economic profitability - return on equity. For the purposes of the analysis, a time horizon of five years was used.

In the analysis of the data, two main financial ratios were used - operating profit margin and return on equity. The operating profit margin is calculated as the ratio between the size of the company's operating profit for the respective year and the size of the insurer's net premium income for the same period. The second indicator - return on equity is calculated as the ratio between the insurance company's net profit for the respective year and the size of the equity for the same period.

An analysis was made of the first four insurance companies in the "General Insurance" industry because they generate nearly half of the gross premium income on the general insurance market in Bulgaria.

A comparative analysis of the economic efficiency of the leading four insurance companies operating in the "General Insurance" branch was made. The comparative analysis includes both a comparison between the individual insurance companies and a comparison with the average values for the "General Insurance" industry for the analyzed five-year period. Data from the website of the Financial Supervision Commission, statistics section, were used.

III. Research findings

Controlling is based on certain target values formulated through financial indicators. These financial indicators are general and represent the overall economic profitability of the developed activity. Controlling is a continuous process, including the phases of planning, control and analysis. The contribution of controlling as a scientific discipline is that it does not consider the mentioned phases in isolation, but on the contrary - connects them in a continuous process. Controlling intervenes both in planning - by formulating the company's goals, and in the control and reporting of the achieved results. Company goals are set at the planning stage, and they form

the basis for the development of company budgets. The development of the company budget is subordinated to the main or leading objective pursued by top management. This goal is usually identified with a leading financial indicator that summarizes the profitability of the business. As a summarizing indicator when formulating the company goal and developing company budgets, the return on invested capital is indicated in the literature (Daile, 2001).

The formulation of company goals and the development of company budgets are subject to internal planning in the company. The company's internal plans are confidential and not accessible to the general public. However, the activities of certain companies (such as insurance companies) is publicly available from the point of view of published financial results (financial statements). On the basis of the officially disclosed financial information, it is possible to judge how effective the insurance company's activities are, how it (the company) fares in the insurance market compared to its competitors and compared to the average values for the industry. The financial information and, in particular, the achieved results provide answers to the questions - Are the managers of the insurance company interested in economic efficiency? and How well do they know the instruments of controlling?

In the course of the research, indicators that have a direct relationship to the profitability of insurance companies operating in the "General Insurance" branch will be analyzed. The analysis used data for both individual years and average values - average annual profitability for a period of five years. The profitability values of the analyzed insurance companies are presented in the form of an index, with the average value for the "General Insurance" branch for the analyzed five-year period taken as a base of 100. The object of analysis are the first four insurance companies from the "General Insurance" branch, ranked according to the "gross premium income" criterion. The four analyzed insurance companies - ZK "Lev Ins" AD, ZD "Euroins" AD, ZAD "Bulstrad Vienna Insurance Group" AD, "DZI - General Insurance" EAD hold approximately 45% of the general insurance market by the end of the third quarter of 2023 according to the Financial Supervision Commission (FSC) data.

The first metric to look at is return on equity (ROE). This indicator compares the amount of net income generated by the insurance company at the end of the year to the amount of equity capital. Here we should make a

clarification that return on equity is usually calculated on an annual basis. In this way, the managers of the insurance company can give a practically quantitative assessment of the work done during the past calendar year. Again, it should be noted that the financial controlling in the company is based on quantitative values that give a general assessment of the economic efficiency of the insurance company's performance. Again, we will note that these indicators should be relative, not absolute values. Absolute values can hardly give a real assessment of the efficiency of the insurance company's work. For this reason, the companies that have realized the highest premium income do not always have the highest profitability. On the contrary - it may turn out to be just the opposite - companies that realize a much smaller volume of premium income generate much higher efficiency compared to the leading insurance companies ranked according to the "premium income" criterion. From this point of view, a distinction should be made between volume - revenue and profit and economic efficiency. Therefore, the high volume of premium income of the insurance company is not always a guarantee of high economic efficiency.

Relative indicators of economic efficiency have another important advantage. These indicators allow a comparison both between the insurance companies themselves and against the average values for the analyzed industry. In this way, a true assessment can be given as to whether the analyzed insurance company is doing better than the industry as a whole or vice versa. One more important clarification should be made - the analysis of the economic efficiency of the insurance company can be done both on an annual basis and for a period of five or ten years. In the latter case, averaged data should be used. The main advantage of the average values is that they show the real economic efficiency of the insurance company in the long term. From this point of view, the analysis of annual indicators of economic efficiency should be seen as inaccurate. Long-term economic efficiency should be considered precisely as a sustainable indicator when analyzing the activity of insurance companies.

The following figures (Figures 1-5) present the return on equity of the leading insurance companies in the General Insurance industry according to the criterion "gross premium income".
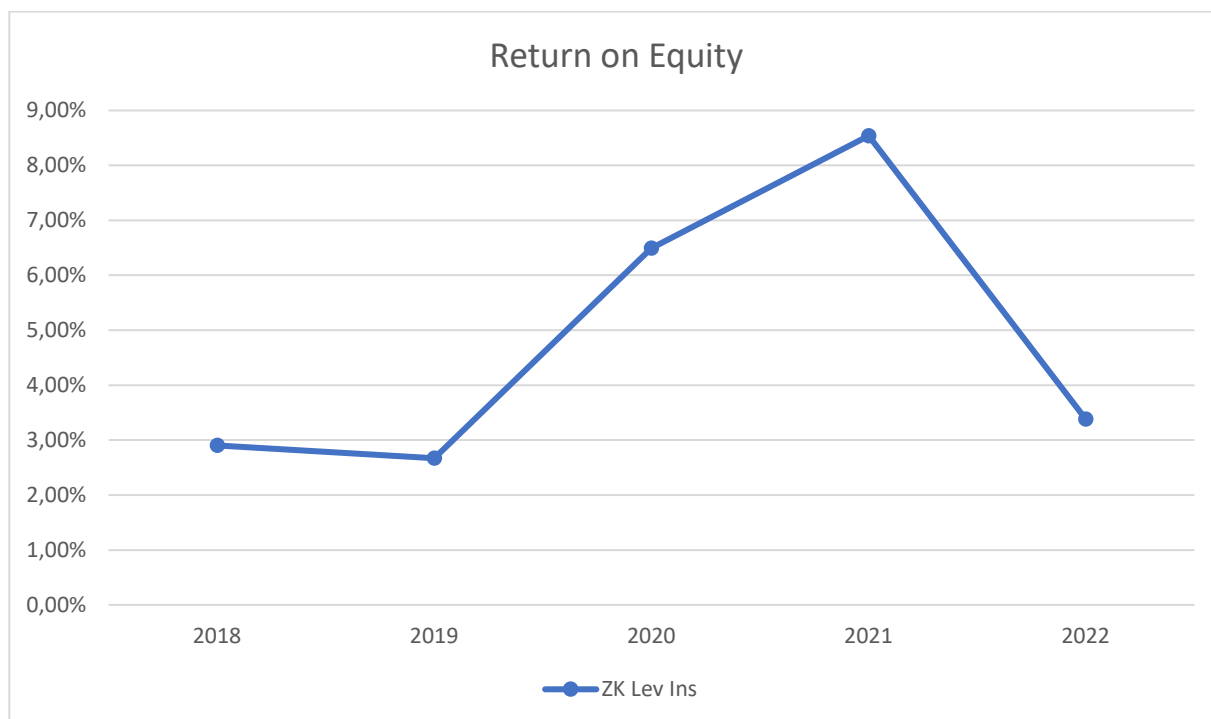
Figure 1. Return on Equity, ZK Lev Ins, years 2018-2022
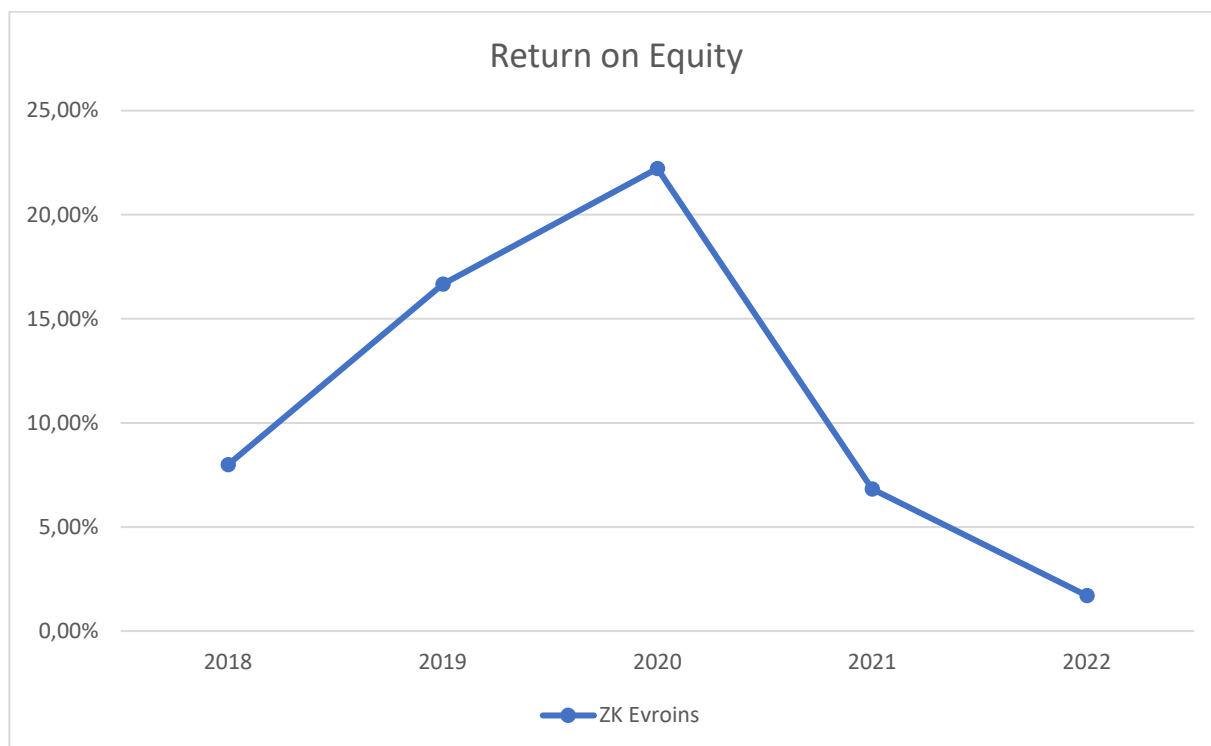*Source: own calculations based on FSC data*

Figure 2. Return on Equity, ZK Evroins, years 2018-2022
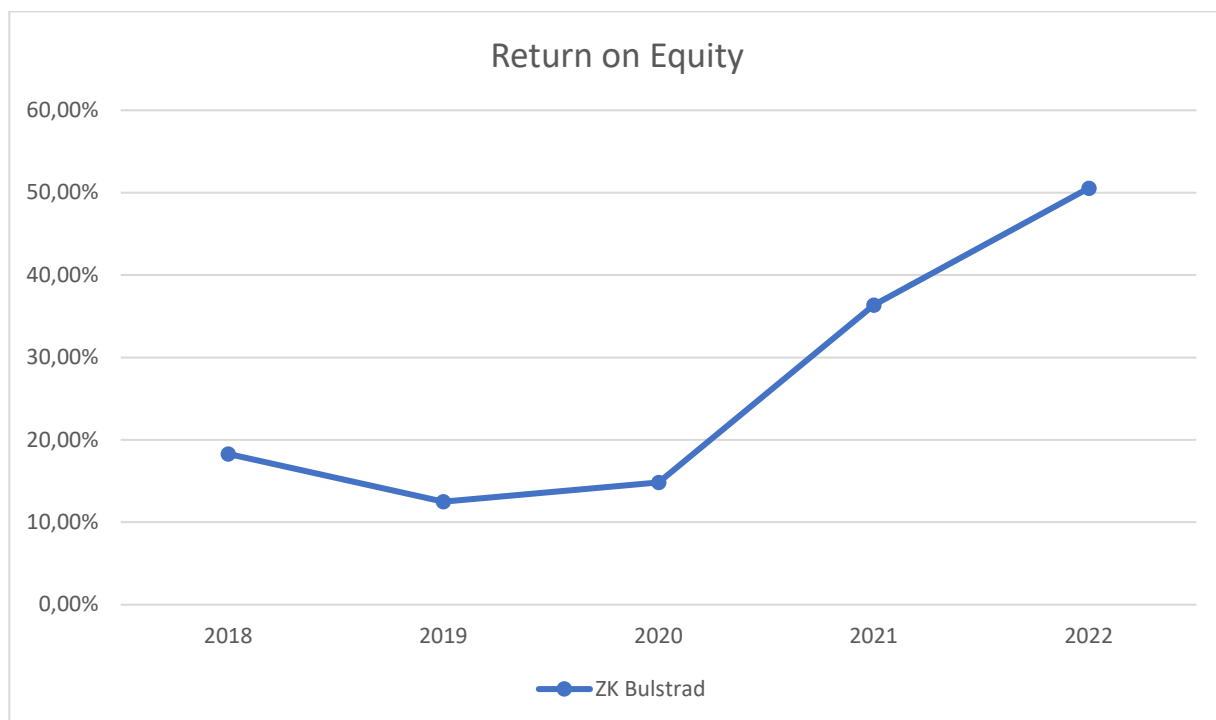*Source: own calculations based on FSC data*

Figure 3. Return on Equity, ZK Bulstrad, years 2018-2022
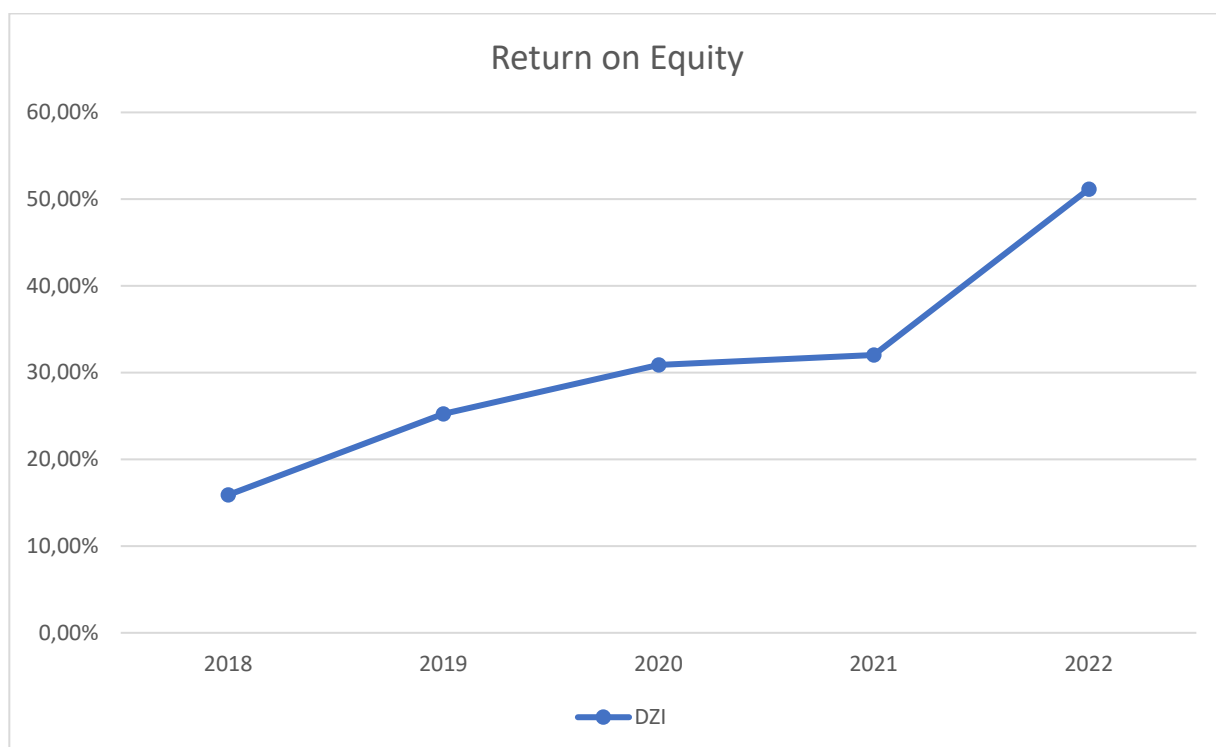*Source: own calculations based on FSC data*

Figure 4. Return on Equity, DZI, years 2018-2022
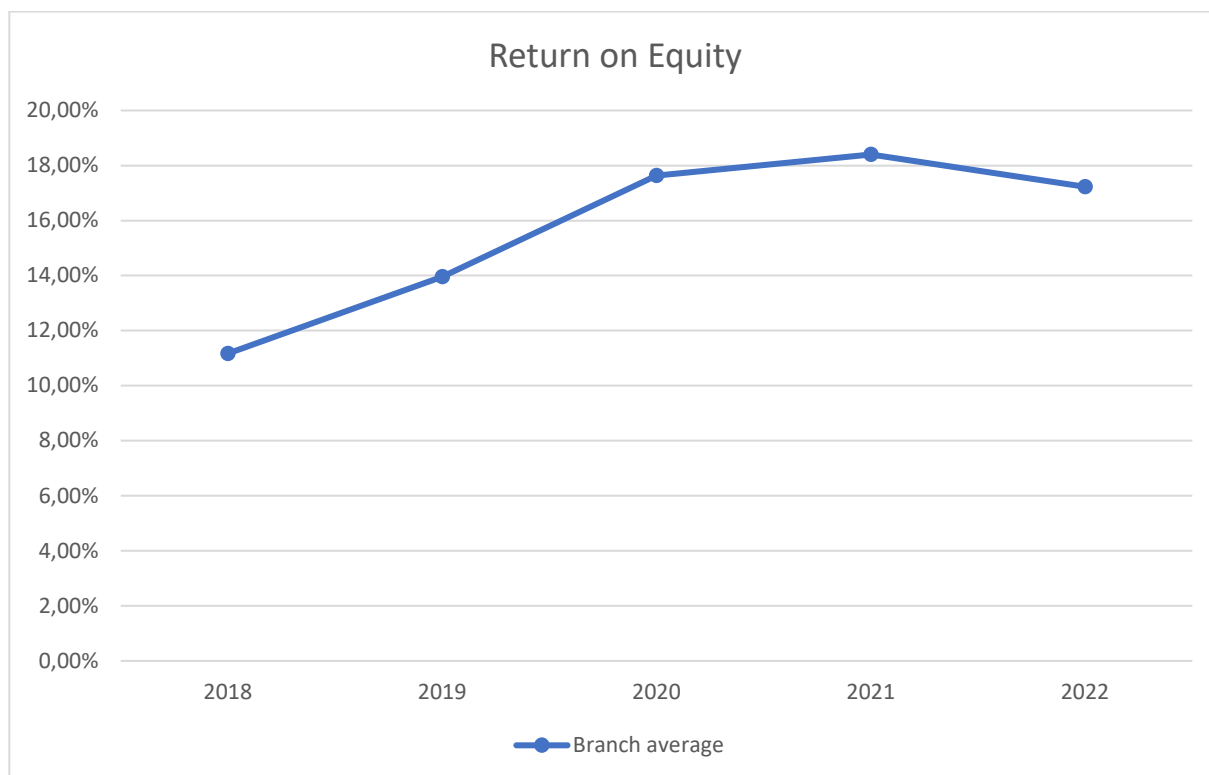*Source: own calculations based on FSC data*

Figure 5. Return on Equity, Branch average, years 2018-2022
Source: own calculations based on FSC data

The return on equity of insurance companies for the analyzed five-year period is not the same. Moreover, this return is not the same for the insurance companies themselves in individual years. There are years when companies realize a return on equity above the general insurance industry average and years when it is below it. The only exceptions are ZK Lev Ins, which over the years realized a return below the average for the industry, and DZI, which, on the contrary, realized a high return on equity - significantly above the average for the "General Insurance" industry. In the case of the other two insurance companies - ZK Euroins and ZK Bulstrad, the return on equity varies compared to the average values for the "General insurance" industry. We will recall again that the financial controlling in the company focuses its goals on general indicators of economic profitability, such as return on equity and return on invested capital. From this point of view, the average annual return on equity of insurance companies for the analyzed five-year period is important. Such information would give us the opportunity to assess to what extent insurance companies from the "General Insurance" branch are interested in economic profitability indicators and whether they apply the controlling tools in the right way. It is possible that the high return on equity

can be achieved without applying the instruments of controlling. In this case, however, the high return on equity is the result of haphazard management rather than purposeful management action.

The following figure (Figure 6) presents the return on equity of the four companies analyzed – averaged over a five-year period (2018 – 2022). The return on equity of insurance companies is presented in the form of an index, with the average value for the General Insurance industry having a value of 100.
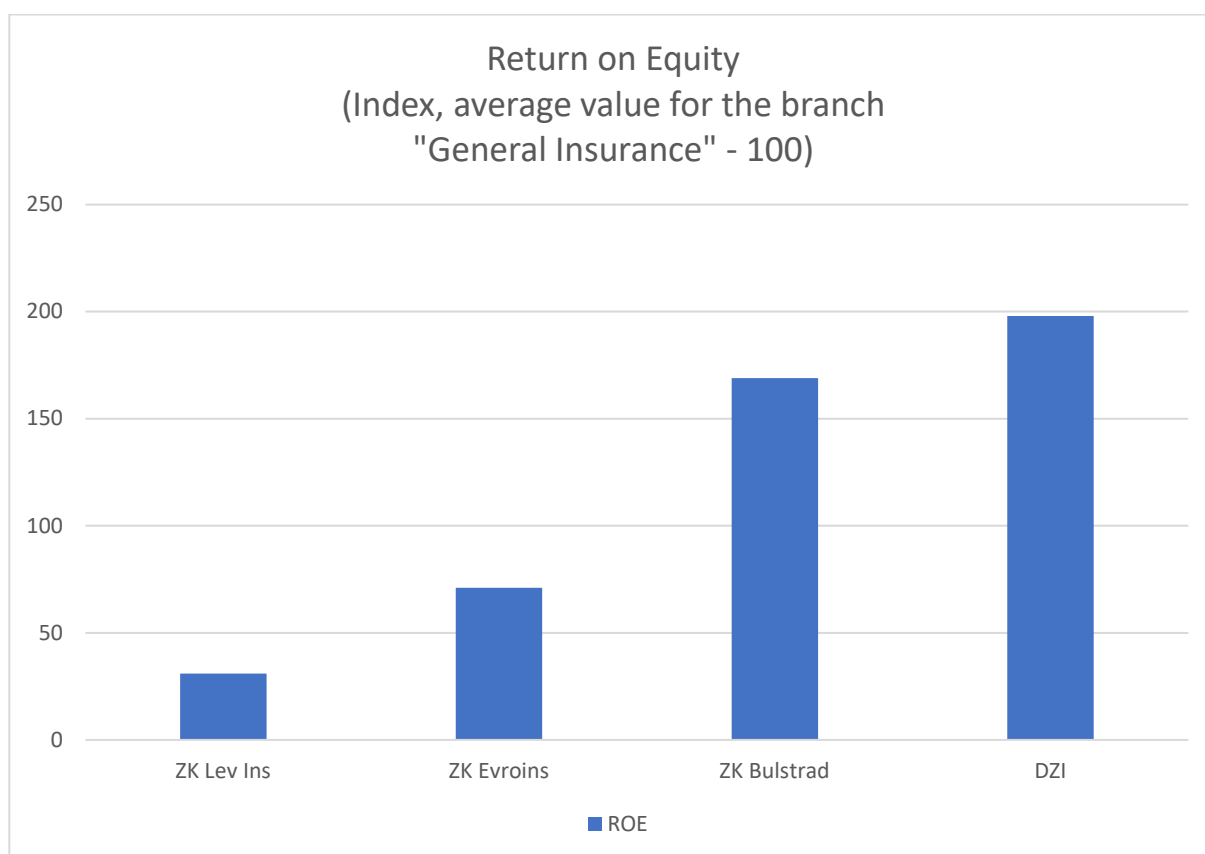

Figure 6. Return on Equity – five-year average, years 2018-2022
Source: own calculations based on FSC data

There are companies that achieve returns above the industry average (ZK "Bulstrad" and ZK "DZI") and those that achieve returns below the average (ZK "Lev Ins" and ZK "Euroins"). It should be noted that for the analyzed five-year period, the insurance company "DZI" shows an average annual return on equity, exceeding almost twice the average return on equity for the "General Insurance" industry. "Bulstrad" Insurance Company shows an average annual return on equity that exceeds 1.5 times the average

annual return for the industry. Contrary to the above, the insurance companies "Lev Ins" and "Euroins" show an average annual return on equity, which is significantly lower than the average annual return for the "General Insurance" industry (at ZK "Lev Ins" it is nearly three times lower than the industry average).

The data presented show opposite results (for the analyzed five-year period). The question here is - Why do some companies realize multiple times higher return on equity compared to the general insurance industry averages, while other insurance companies realize multiple times lower returns than the industry averages? In both cases, we are talking about insurance companies that are leaders in the "General Insurance" branch according to the "gross premium income" criterion. The data from the survey support the thesis that the high premium income of the insurance company is not a guarantee of high economic efficiency. In this case, the goals pursued by senior management, as well as the costs associated with the implementation of controlling in the insurance company, are important. On the one hand, the high economic efficiency of certain companies (ZK "Bulstrad" and ZK "DZI") is a signal for setting certain priorities. On the other hand, the low economic efficiency of ZK "Lev Ins" and ZK "Euroins" casts doubt on the goals pursued by the top management.

In the case of publicly traded companies, investors are interested not only in the generated income, but also in the achieved financial results. The financial results provide an objective assessment of the goals achieved by the top management of public companies. These results are monitored by investors and form the market value of equity capital.

An assessment of the results of the insurance activity should be given not only in terms of the growth of premium income and conquered market share, but also in terms of the achieved efficiency of these sales through the "operating profit margin" indicator. The following figures (Figures 7-11) presents the operating profit margin of the leading insurance companies (according to the "gross premium income" criterion) for the analyzed five-year period. Operating profit margin is a ratio between an insurance company's operating profit (earnings before interest and taxes) and net premium income (gross premium income less premiums ceded to the reinsurer).
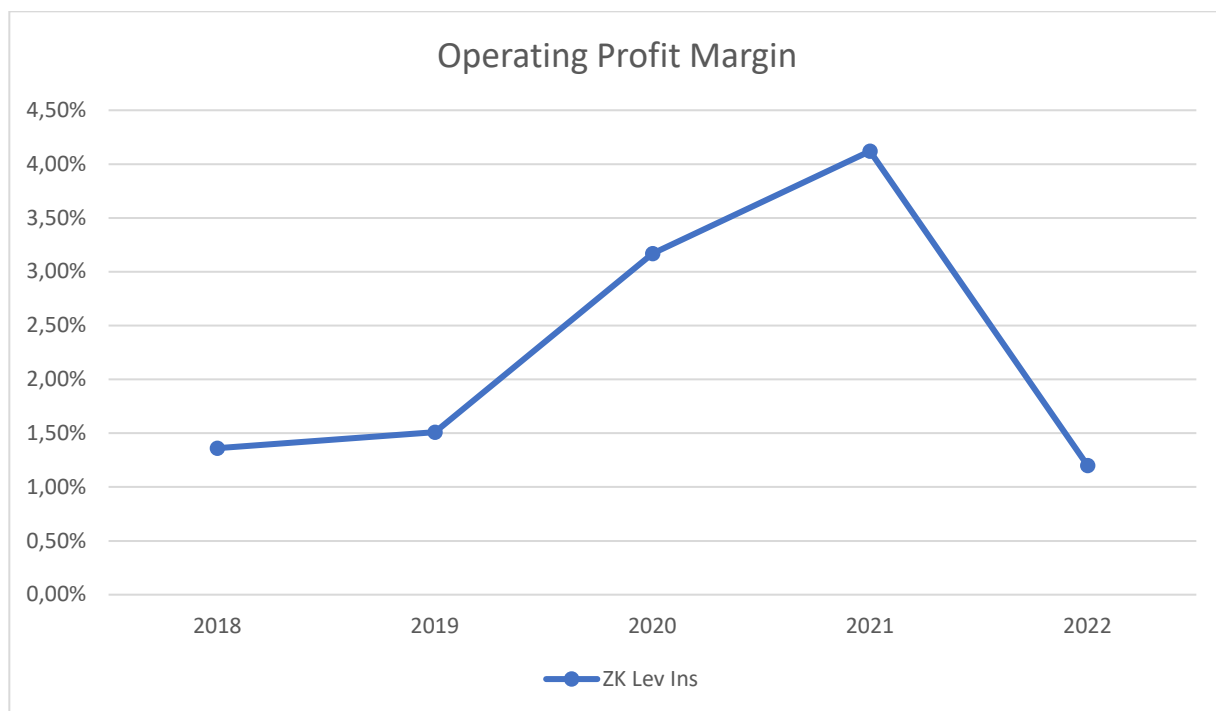
Figure 7. Operating Profit Margin, ZK Lev Ins, years 2018-2022
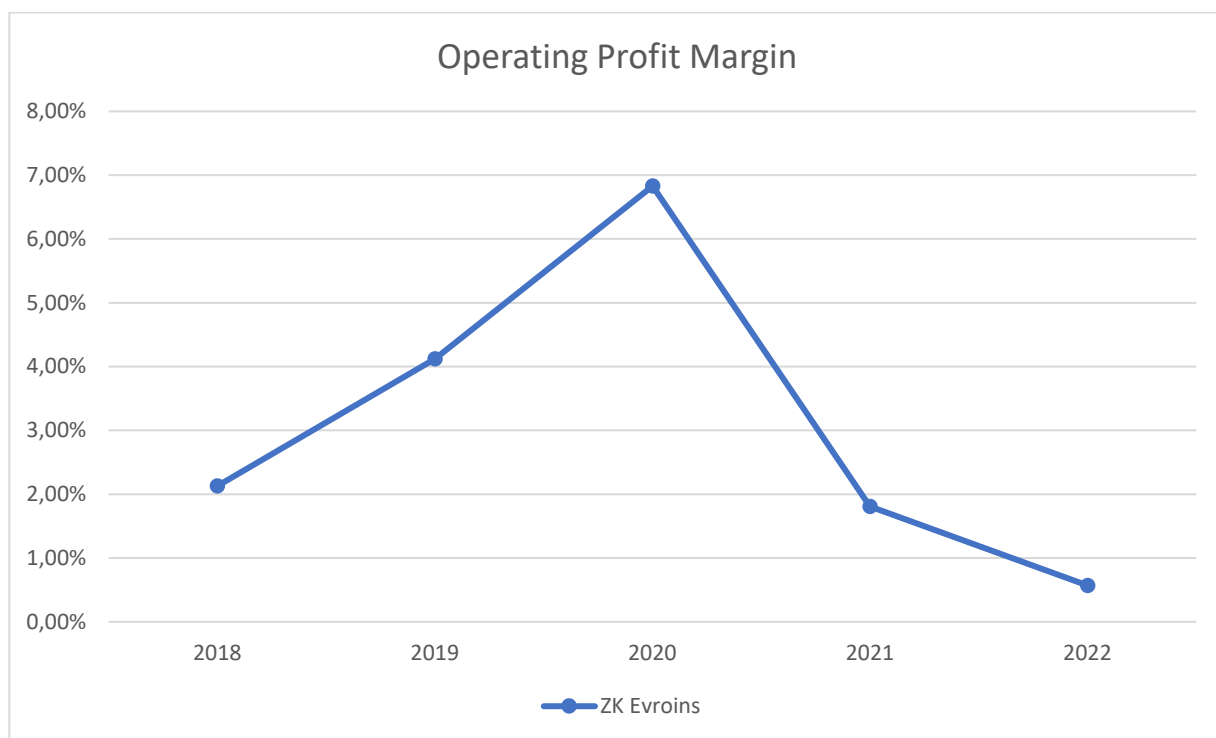*Source: own calculations based on FSC data*

Figure 8. Operating Profit Margin, ZK Evroins, years 2018-2022
Source: own calculations based on FSC data

Figure 9. Operating Profit Margin, ZK Bulstrad, years 2018-2022
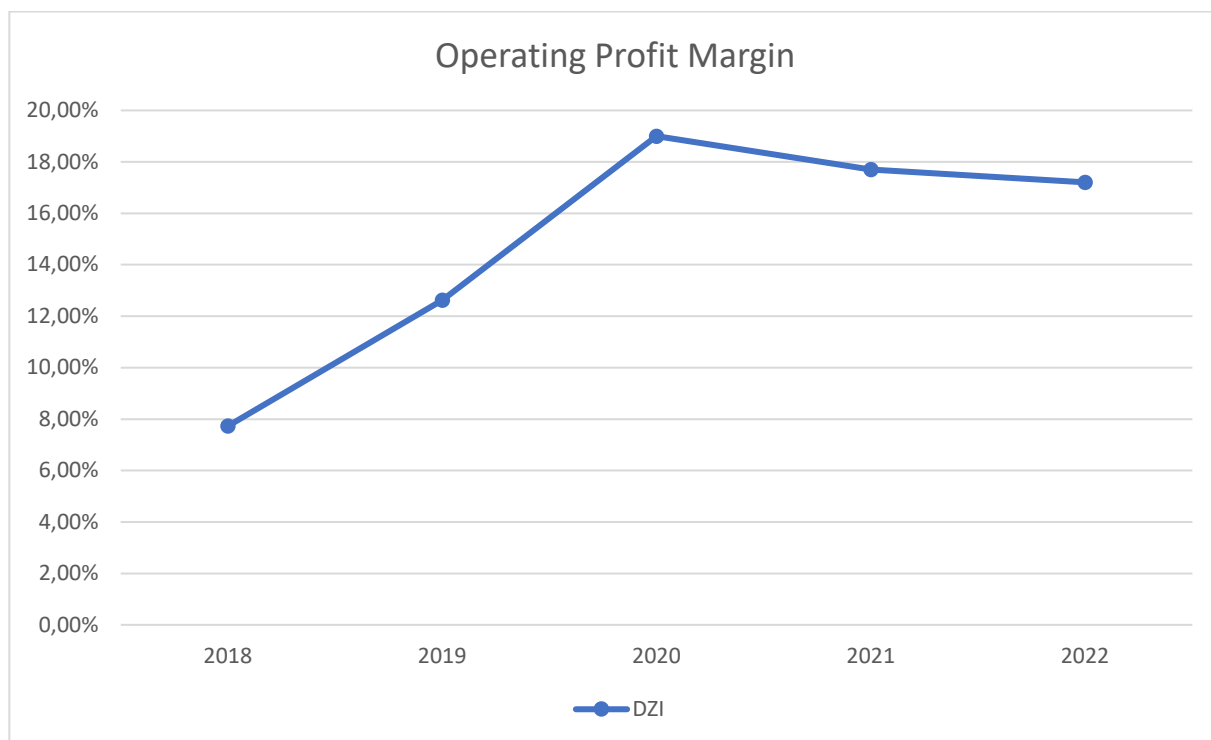*Source: own calculations based on FSC data*

Figure 10. Operating Profit Margin, DZI, years 2018-2022
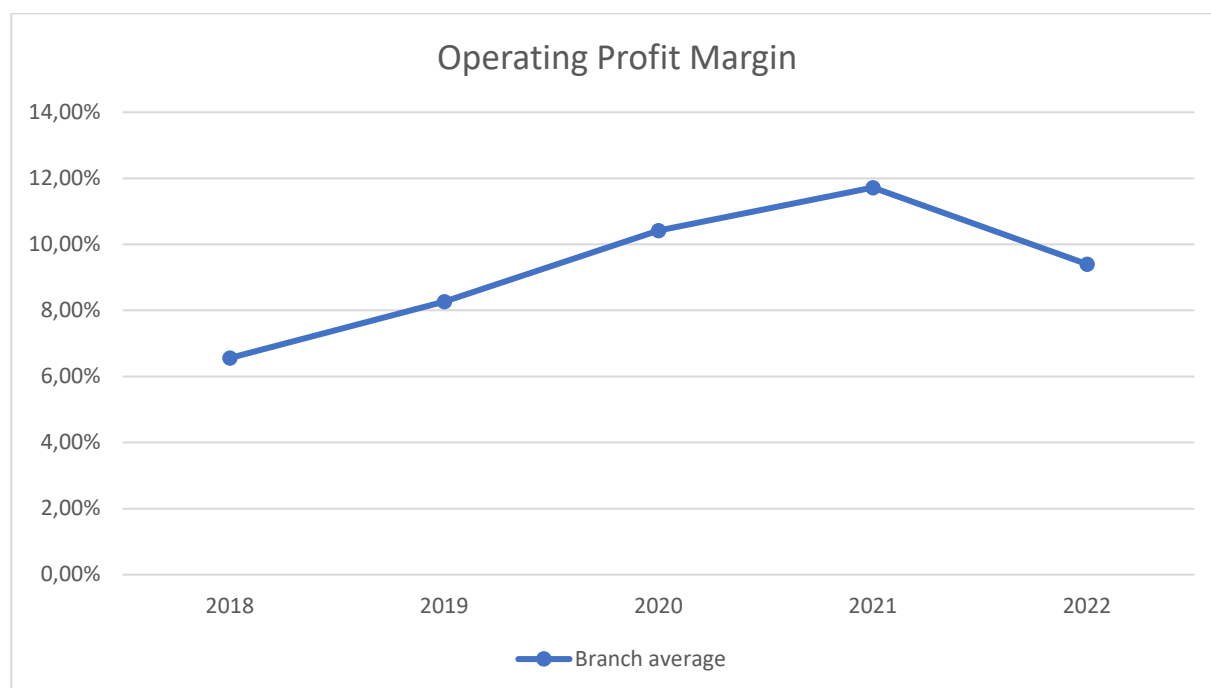*Source: own calculations based on FSC data*

Figure 11. Operating Profit Margin, Branch average, years 2018-2022
Source: own calculations based on FSC data

From the above figure, it is clear that, for the analyzed five-year period, the "General insurance" branch realized a positive trend in the operating profit margin. The value of the operating profit margin for the General Insurance industry is just over 5% for the year 2018, while for the year 2021 this value exceeds 10%. The results shown by the leading insurance companies from the General insurance industry are again ambiguous. There are companies that show an operating profit margin value well above the General Insurance industry average and those that show a value well below it. The data in the indicated figures confirm that a high profitability of sales revenue also leads to a higher return on equity. ZK "Bulstrad" managed to realize an operating profit margin for 2021, exceeding 20%, with an average value for the "General insurance" branch for the same year - slightly above 10%. ZK "DZI" manages to realize an operating profit margin for 2020 of nearly 20%, compared to an average value for the "General Insurance" industry for the same year - nearly 10%. In the other direction are the insurance companies Lev Ins and Euroins. The value of the operating profit margin of the mentioned companies is below the average value for the "General insurance" industry in all five years of the analyzed period.

The operating profit margin can also be presented in the form of an index. The following figure (Figure 12) shows the operating profit margin

(OPM) of the leading insurance companies from the "General insurance" branch - an index with an average value for the branch of 100. The index represents the five-year average return on sales.
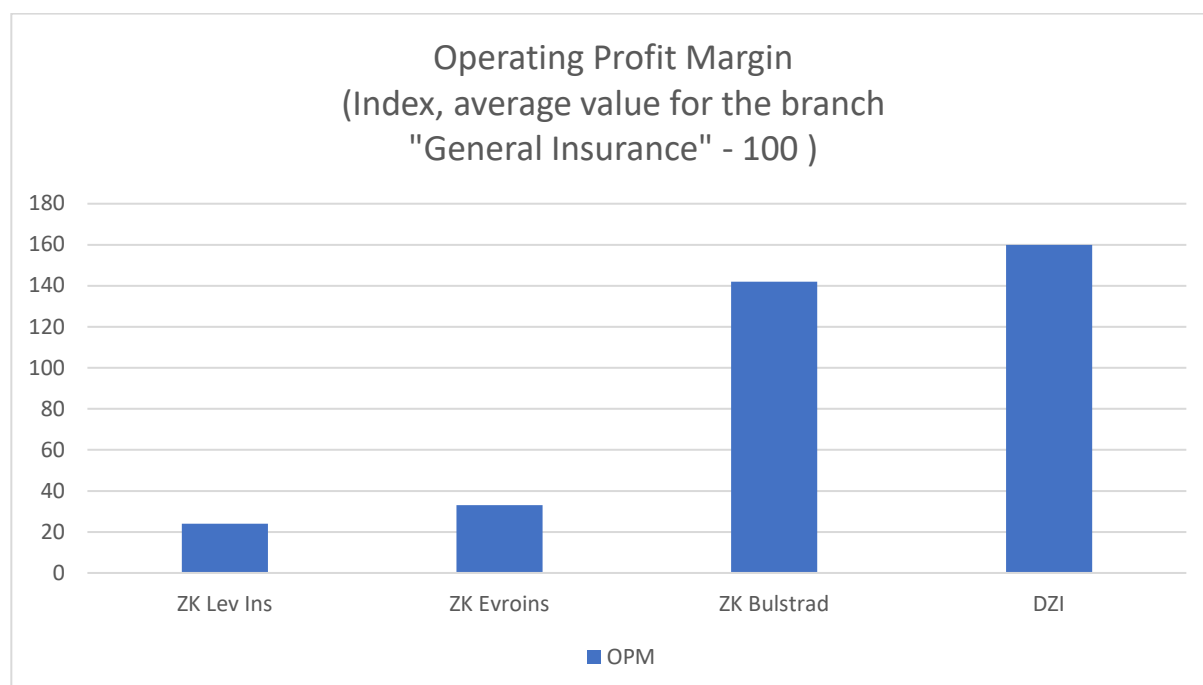

Figure 12. Operating profit margin, five-year average, years 2018-2022
Source: own calculations based on FSC data

The presentation of the operating profit margin for the analyzed five-year period in the form of an index has significant advantages. The index presents average values of the operating profit margin of the indicated companies for the analyzed five-year period. This makes the results sustainable over time. On the other hand, the index enables a direct comparison of sales profitability both between individual companies and against the average for the General Insurance industry. The data in the figure confirm what has already been said above, that for the analyzed five-year period, ZK "Bulstrad" and ZK "DZI" realize an operating profit margin significantly above the average for the "General Insurance" industry. Quite the opposite - ZK "Lev Ins" and ZK "Euroins" realize an operating profit margin significantly below the average for the "General insurance" industry for the analyzed five-year period.

The figure below shows a regression analysis between operating profit margin (independent variable) and return on equity (dependent variable) for the General Insurance industry. Despite the small number of observations

(five-year period), the high values of the correlation coefficient and the coefficient of determination are evidence of the existence of a relationship between operating profit margin and return on equity for the General Insurance industry.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0,940584
R Square	0,884699
Adjusted R Square	0,846265
Standard Error	0,011893
Observations	5

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0,003256	0,003256	23,01876	0,01723
Residual	3	0,000424	0,000141		
Total	4	0,00368			

Figure 13. Regression analysis between operating profit margin (independent variable) and return on equity (dependent variable) for the General Insurance industry, years 2018-2022
Source: own calculations based on FSC data

IV. Discussion

The question remains open - what are the reasons for the different economic efficiency achieved by insurance companies? We will recall the fact that, according to the FSC data, the insurance companies mentioned in the

study hold approximately 45% of the general insurance market at the end of the third quarter of 2023, and for 2022 their market share exceeds 50%. These are companies that generate gross premium income not in the amount of hundreds of thousands, but in the amount of hundreds of millions of BGN, and in some of them (ZK "Euroins" and ZK "Lev Ins") the gross premium income from insurance activity significantly exceeds four hundred million BGN for 2022. This raises the question - Why do companies with such a large gross premium income achieve economic efficiency below the average for the General Insurance industry?

The answers to the mentioned questions are hidden in the financial statements of the insurance companies. High premium income is not a guarantee of a high financial result, given the fact of the huge amount of premiums ceded to the reinsurer and the amount of expenses related to paid insurance benefits. However, here we should pay attention to the fact that the financial statements reflect the results of the insurance company's activity. They do not provide an explanation for the developed company plans (budgets), the set goals, the way to achieve them and the extent of their implementation. The conflicting results (operating profit margin and return on equity below the industry average) cast doubt on the goals pursued by the insurance company's senior management. The economic efficiency of the developing insurance business is also in doubt. It is also questionable to what extent the senior management knows the controlling tools in the company and whether they are applied in the appropriate way. In this case, the preventive activity of the insurance company, which is related to the control of the incurred expenses, deserves attention (Krastev, 2017).

Conclusions

The above analysis of the activities of the leading insurance companies (according to the "gross premium income" criterion) from the "General Insurance" branch leads to the following conclusions. First, the leading insurance companies show different economic efficiency according to the "return on equity" and "operating profit margin" indicators. One of them shows efficiency significantly above the average for the "General Insurance" branch - ZK "DZI" and ZK "Bulstrad", while others show efficiency below the average for the branch - ZK "Euroins" and ZK "Lev Ins". Second, higher operating profit margin of insurance companies leads to a higher return on equity.

Attention should also be paid to the fact that insurance companies can be traded on the stock exchange. Publicly traded companies are valued in the stock market according to the market value of equity. In publicly traded companies, there is a relationship between the market value of the equity capital and the achieved financial results. The specialized literature advocates the opinion that the current market price of shares of public companies reflects investors' expectations regarding future financial results (Rappaport, 1998). This puts pressure on senior management regarding the results achieved. We will only recall that the leading goal of company management is aimed at increasing the market value of the equity capital of publicly traded companies. From this point of view, the achieved results and economic efficiency are essential for company management.

References

Daile, A. (2001). *Praktika kontrolinga.* Moskva : Finansi i statistika .

Horvath, P., Gleich, R., & Seiter, M. (2020). *Controlling.* Munchen: Vahlen.

Iliev, B. (2009). *Menigment na zastrahovatelnoto drujestvo.* V. Tarnovo: Faber.

Iliev, B. (2011). Adaptiven menigment v zastrachovaneto. *Stopanski svjat*(109).

Ilkaz, A., & Cebi, F. (2024). Dynamic Efficiency Analysis of Non-life Insurance Companies: A Window Data Envelopment Analysis Approach. *Durakbasa, N.M., Gülen, K.G. (eds) Sustainable Green Conversion.* (pp. 287-301). Montenegro: Springer. DOI:10.1007/978-3-031-83583-4_20

Kamenov, K., & Asenov, A. (2010). *Kontroling.* V. Tarnovo: Abagar.

Krastev, K. (2017). *Prevenzia i zastrachovane.* V. Tarnovo: Faber.

Krastev, L. (2022). *Finansov kontroling vav firmata.* V. Tarnovo : Faber.

Petrov, A. (2008). *Savremenata organizacia i aktivnata korporativna sigurnost.* Sofia: Paisii Hilendarski.

Rappaport, A. (1998). *Creating Shareholder Value.* New York: The Free Press.

Shulte, C. (1996). *Lexicon des Controlling.* Munchen-Wien: R. Oldenbourg Verlag.

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