Elay ZEYNALLI,
PhD in Economics, Associate Professor,
Azerbaijan State Agricultural University, Ganja (Azerbaijan)
*https://orcid.org/*0000-0002-6352-662X

INNOVATIVE METHODOLOGY IN FINANCIAL ANALYSIS OF INSURANCE ORGANIZATIONS

Insurance, which is one of the main avenues of economic diversification, is also important financial and protection mechanism. In order to maintain the activity of insurance organizations and protect them from possible risks, regular financial analysis should be conducted, measures should be taken to make sound financial decisions and protect financial stability. Especially in the new market economy countries, where the "insurance culture" has been not fully formed, financial analysis of insurance organizations can make an important contribution both to strengthening the stability of the country's financial system and to increasing the confidence of the population in the activities of insurance organizations. In this regard, the theoretical part of the article examines the historical development and modern state of the insurance market in Azerbaijan as a new open market economy country, as well as important state regulations related to financial stability. In the study, the financial analysis of insurance organizations has been conducted on the basis of the specifics of financial analysis in insurance organizations and the recommended financial ratios. The interpretation of the results and the opportunities to improve the financial indicators of the companies have been emphasized.

Keywords: Azerbaijan, insurance premium, asset quality, profitability, activity ratios
JEL: *G10, G22*

Страхування, як один із основних методів розподілу різноманітних ризиків, які виникають у відкритій ринковій економіці, теж підлягає певним ризикам. Послідовність його дії, фінансова стабільність, а також достатність фінансових результатів для відновлення діяльності в майбутньому є критичними не тільки для страхових компаній, а й для регуляторних органів фінансових баз і суб'єктів перестрахування. Важливо забезпечити фінансову стабільність і довіру до фінансових ринків, особливо для країн з перехідною економікою, які трансформувалися із закритої економіки у відкриту. У статті, підготовленій на прикладі страхових організацій Азербайджану, на основі системного підходу, аналізу, синтезу, графічних і статистичних методів досліджено основні показники страхового ринку і страхових організацій за останній час.

Досліджено особливості становлення та розвитку страхових відносин в Азербайджані, проаналізовано етапи розвитку страхування, оцінено вплив державних рішень щодо регулювання страхових організацій на їх фінансовий стан. З'ясована динаміка страхових премій і страхових виплат в Азербайджані за останні 11 років, кількість страхових організацій як основних учасників страхового ринку, кількість укладених договорів страхування як основний показник сформованості страхової культури та досліджено перспективи розвитку страхового ринку.

Основною метою проведення фінансового аналізу в страховому секторі є підтримання довіри на фінансових ринках, оцінка надійності страховика та дотримання суспільних інтересів. У другій частині статті досліджено особливості цього процесу, методи аналізу, фінансові показники, які використовуються при плануванні та аналізі процесу.

У третій частині статті в різних напрямках проаналізовано основні фінансові показники страхових організацій за останні три роки на основі фінансової звітності компаній зі страхування життя, що працюють в Азербайджані, а також фінансові показники, призначені для використання в процесі дослідження.

Відповідно до інтерпретації результатів аналізу були визначені напрямки розвитку страхового ринку в Азербайджані, вдосконалення фінансової звітності в страхових організаціях, підвищення фінансової інклюзії та зміцнення стабільності діяльності страхових компаній.

Ключові слова: Азербайджан, страхова премія, якість активів, прибутковість, коефіцієнти активності
JEL: *G10, G22*

Introduction

In the 19th century, financial analysis was carried out for the purpose of studying the efficiency of the enterprise's activity, determining the effectiveness of management decisions, and assessing the enterprise's compliance with the factors of the business environment. In contrast to the classical approach related to the assessment of financial stability, the current financial analysis is very important in terms of predicting and sustaining future activity for emission enterprises, especially in the open market economy. Insurance, which is one of the main methods of sharing various risks occurring in the open market economy characterized by uncertainties, is itself exposed to certain risks. The continuity of a company's its activity, its financial stability and sufficiency of financial results for the continuation of activities in the future are important not only for insurance organizations, but also for supervisory authorities of financial bases, reinsurance organizations and customers. Due to its specific characteristics, financial reporting in an insurance organization has certain differences compared to other commercial enterprises, which are manifested in the process of financial analysis of insurance organizations as the next stage of financial reporting. From this point of view, the formation of specific methodologies aimed at conducting financial analysis of insurance organizations should be viewed as a new direction of financial analysis. Issues such as the concept of solvency III of insurance organizations, the profitability of activities, the frequency of collecting insurance fees and the existence of a buffer reserve for insurance payments are extremely important for countries with a developing regulated open market economy such as Azerbaijan.

In the current situation with various economic (crises), political (war, revolution) and natural (pandemic) cataclysms, the development of the insurance market, including insurance relations as the main manifestation of financial markets, confidence in the activity of the country at the macro level, and in the activities of insurance organizations at the micro level, are very important for the increase and improvement of investment opportunities. Most recent studies on the insurance market (Basturk, 2019; Born & Bujakowski, 2022; Dankiewicz & Simionescu, 2020; Hasanova, 2015; Ozen & Grima, 202; Prokopchuk et al, 2019; Wang et al, 2020) considering the insurance market as one of the main impulses of economic development, the sustainable and stable activity of its participants (Berkdemir & Nurullah, 18; Bulbul & Kose, 2016; Burca & Batrinca, 2014; Joo, 2013; Malik, 2011) emphasize the necessity of regular analysis.

The **aim of the study** is to complete a financial analysis of insurance organizations and explore the historical development and modern state of the insurance market in Azerbaijan as a new open market economy country. The first part of the article presents the historical overview of insurance market in Azerbaijan. The specific features of financial analysis in insurance organizations are demonstrated in the second part. The third part includes the analysis of financial indicators of life insurance organizations in Azerbaijan. The conclusion is presented in the last part of the article.

An overview of the insurance market in Azerbaijan

Although the first insurance-like activities in the history of the world are believed to emerge in Babylon about 4000 years ago, in Azerbaijan insurance related activities appeared relatively late, in the middle of the 19th century. Branches and departments of foreign insurance companies operated in Azerbaijan until the October

revolution (Ibrahimov et al, 2017). After the revolution, in 1921, the State Insurance Department was organized under the Russian People's Commissariat for Finance (Khankishiyev & Abdullayev, 2004). The insurance business in our country began to develop independently after the 1990s. Along with the state insurance company, the number of private insurance companies began to increase. The more dynamic development of insurance activity in Azerbaijan started after 2003. The sale of credit products began to increase due to the fact that banks and credit organizations attracted cheap financial institutions. Among the loans, car loans prevailed, so the banks wanted to insure the car they lent. In addition, the same situation was observed in business loans secured by property. This collateral property was also insured by insurance companies at the request of banks. Thus, the revival in the banking sector led to the revival in the insurance sector. It is typical for many economies globally that the banking sector promotes the development of insurance as another area of the financial sphere, which most researchers associate with the efficiency of the country's financial system.

According to the decision of the Cabinet of Ministers of the Republic of Azerbaijan No.

152 dated 20.09.2001, from 01.01.2002 the authorized capital of insurance organizations was set at 2 billion AZN and for reinsurers – 5 billion AZN. As a result, the number of insurers decreased from 62 to 38. Since 2009, the minimum authorized capital has been set at 800,000 manats (AZN) for insurers operating since 2009, 1,000,000 manats for newly created insurers, 1,600,000 manats for active reinsurers, and 2,000,000 manats for newly established reinsurers (Ibrahimov et al, 2015). As a result, 28 insurance companies and 1 reinsurance company, as well as 7 insurance brokers, were operating in Azerbaijan at that time.

Fig. 1 demonstrates the number of insurance companies operating in Azerbaijan.

As can be clearly seen from the graph, the number of insurance organizations was more than 20 over the past 11 years, despite various financial requirements of the state (increasing the authorized capital, increasing the volume of reserve funds, etc.) (Hasanova, 2005). The fluctuation of the number of insurance organizations is due to the high influence of banks on the financial sector of the country and the fact that insurance organizations are mainly focused on the insurance of bank products. However, since 2018, an increase in the number of
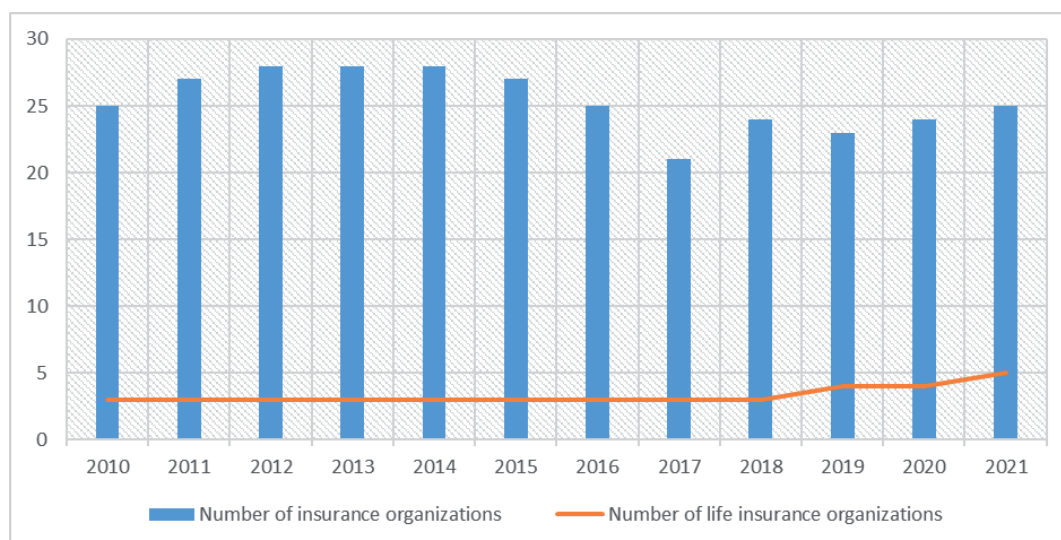
Fig. 1. The number of insurance organizations operating in Azerbaijan in 2010-2021
Source: The graph was compiled by the author based on stat.gov.az database (05.12.2022)

insurance organizations has been recorded in Azerbaijan. In the life insurance market, where only 3 insurance companies have been operating since 2010, in 2019 "XalqHayat" and in 2021 "MegaHayat" insurance companies started operating under license.

The increase in the number of insurance organizations focused on life insurance is associated with an increase in demand for these insurance products in the market. Fig. 2 shows the number of insurance contracts concluded for life and non-life insurance products in 2015-2021.

As can be seen from the Fig.2, even though non-life insurance prevailed at the beginning of the analyzed period, the number of insurance contracts concluded on life insurance products has increased since 2018. So, compared to 2015, in 2021, the number of contracts for private insurance increased 2.5 times or 615,123 to 859,034. The main reasons for such an increase may be public education, concessions on the use of this type of insurance in the new tax legislation.

Two other indicators that characterize the insurance market are fees and payments (Burca & Batrinca, 2014). According to the information of the Central Bank of the Republic of Azerbaijan, interesting dynamics are observed in this direction. Fig.3 clearly shows that picture.
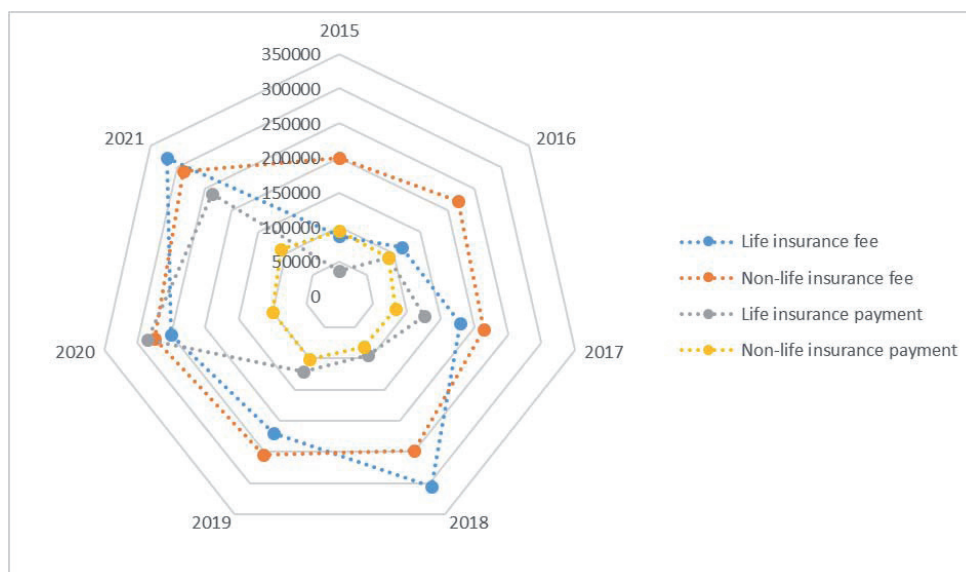
In 2015-2021, insurance fees for life insurance increased 2.6 times, and insurance payments increased 5.58 times, the ratio of insurance fee to insurance payment for the mentioned years was 1.82. For non-life insurance for the years 2015-2021, although the collection of insurance fees increased by 40 percent, insurance payments increased by 14 percent, the ratio of insurance fee to insurance payment was 2.52. In general, the number of life insurance payments has increased substantially in the last two years. A continuous increase in the collection of fees as been observed for non-life insurance.

As can be clearly seen from the statistical reviews, the insurance market of Azerbaijan continues the process of formation. The data provided once again proves that the government's main focus is on protecting the financial stability of insurance organizations and ensuring their solvency. In this context, determining the financial indicators of insurance companies is of decisive importance not only in assessing the financial sector from a macro perspective and in policy development, but also in making managerial decisions from a micro perspective. In order to make an objective decision in this direction, as well as to make
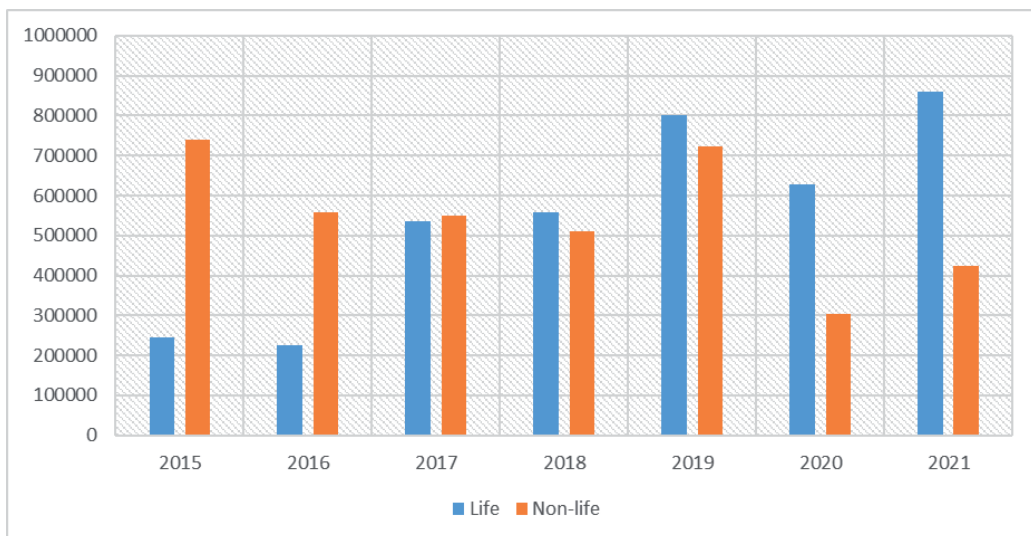
Fig. 2. The number of insurance contracts concluded in Azerbaijan
Source: The graph was compiled by the author based on stat.gov.az database (05.12.2022)

Fig. 3. Dynamics of insurance fees and payments in 2015-2021
Source: The graph was compiled by the author based on stat.gov.az database (05.12.2022)

operational and sustainable management decisions in insurance organizations, it is necessary to study in detail the financial position and performance of insurance organizations, evaluate their effectiveness, in short, use the achievements of financial analysis.

Specific features of financial analysis in insurance organizations

In the insurance sector, financial analysis is an analytical process that performs functions such as maintaining confidence in financial markets, assessing the of an insurer reliability, and complying with the public interest.

The purpose of the analysis of the insurance organization is to determine the financial solvency of the insurance company and its financial results, as well as to determine ways to improve business its efficiency.

Financial statements of insurance organizations differ from financial statements of commercial and industrial companies. Insurance companies, unlike other business entities, must create accounts including analytics derived from service features. The characteristics of insurance companies are also reflected in insurance financial statements. We can list these features as follows (Bulbul & Kose, 2016; Zeynalli, 2020):

• In insurance companies, it is not possible to accurately determine the profit or loss for the period. Because the cost of each service performed is based on some probability calculations. These probability calculations often include an average probability based on the law of large numbers. If the risks exceed this average probability threshold, there will be a loss for the company. But if they stay below this threshold, there will be a profit.

• In years of disaster or major damage, insurance companies will have to pay a large amount of insurance fees. Therefore, it is inevitable that a company will suffer losses or make less profit in such years. It should not be forgotten that although the profitability rates of insurance companies are low in such years, the long-term profitability rates may not be affected by negative fluctuations.

• Reserves of insurance companies are formed not from profits, as in other enterprises, but from insurance fees paid by policyholders.

• Since actuarial calculations are based on certain probability calculations, a certain margin of error is always possible in financial statements.

• Analysis of solvency and liquidity occupies a major place in the financial analysis in insurance organizations. In order to measure the solvency, the financial statements prepared in accordance with the International Standards of Financial Statements of insurance companies are used. However, the company's ability to determine its future solvency is limited. The future cash flow of an insurance company is based on the probability of a number of uncertain events. Therefore, cash flow forecasts are estimates of possible outcomes within a certain margin of error.

• Another distinctive feature is that the solvency of insurance organizations is based on the performance of the investment portfolio rather than the insurance portfolio. However, in our opinion, it is more correct from the point of view of financial analysis to base the solvency not only on the insurance or investment portfolio of the company, but on the entire activity of the company.

• • Analyzing only one year of data can sometimes lead to incorrect results due to cyclical effects in insurance. To solve this problem, it is necessary to carry out an analysis with figures covering periods of 3-5 years.

• Another approach to assess profitability is to compare profitability ratios with the worst and best institutions in the insurance sector.

• Since insurance companies are financial intermediaries, asset quality is critical to solvency. Most of the assets of insurance companies are invested in bonds, stocks and real estate. Their distribution and quality inevitably determine the quality of assets and their profitability.

• Being a financial institution, insurance companies should bring liabilities into line with the repayment structure of their assets. This is especially important in life insurance companies.

Since the financial indicators of insurance companies are affected by many factors, many criteria should be taken into account when implementing the financial analysis of insurance companies. As the most optimal method of financial analysis, the following life insurance coefficients are used in the analysis of insurance organizations using the ratio method (Başpınar, 2005; Basturk, 2019; Chen et al, 2004; Joo, 2013) (Fig.4):
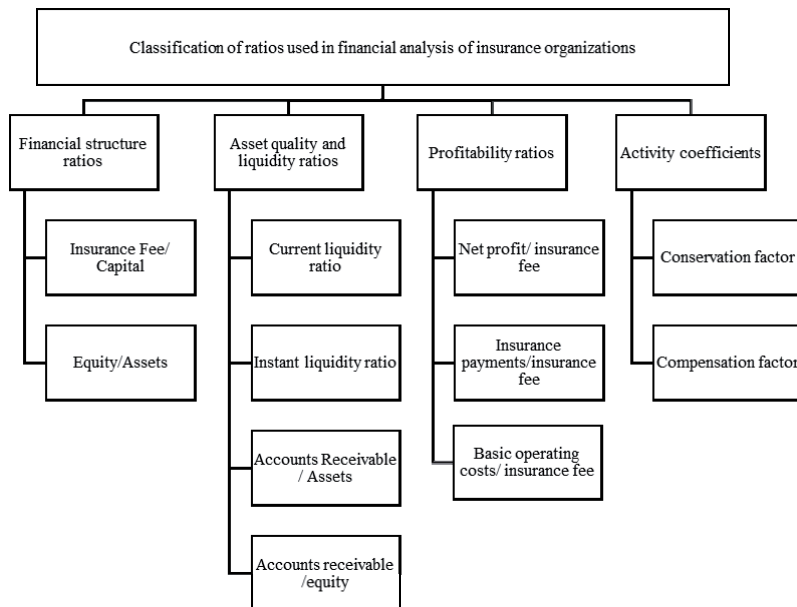
Fig.4. Classification of ratios used in financial analysis of insurance organizations
Source: Başpınar, 2005; Basturk, 2019; Chen et al, 2004; Joo, 2013

Financial structure ratios measure the ability of insurance companies to meet their medium and especially long-term obligations. Companies may be short-term loss-making, may mismanag assets, or have difficulty raising funds. However, the ability of companies to meet their obligations in the medium and long term is still important. The financial structure coefficients also evaluate this analytical direction.

In insurance companies, liquidity and asset quality ratios are important in terms of asset valuation and assurance that their guarantees to creditors or policyholders can be honored. The mentioned coefficients are the coefficients that interpret the company's ability to fulfill short-term obligations and evaluate whether the working capital is at the required level for business (Zeynalli, 2021). Activity ratios are aimed at assessing the long-term activity of an insurance organization from the point of view of financial management and at studying the possibilities of diversifying risks arising in the process of fulfilling obligations from an analytical point of view (Akyuz & Kaya, 2013). Profitability is one of the key indicators of success for insurance companies and is essential for companies to continue in business (Malik, 2011). In the insurance sector, companies increase their capital through retained earnings and thereby increase their solvency, which requires an analytical assessment of the coefficients associated with an increase in the collection of insurance premiums and a decrease in payments on insurance events.

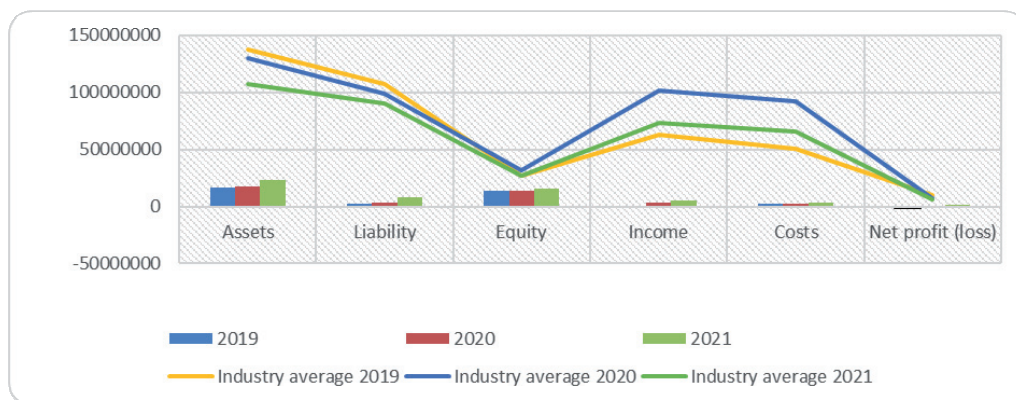**Analysis of financial indicators of life insurance organizations in Azerbaijan**

Acquittance with the general financial performance of life insurance companies before analyzing the ratios mentioned in the chart will make the financial analysis more reliable and the results correctly interpreted. As we mentioned earlier, in 2022 there were 5 life insurance companies operating in Azerbaijan. "Ateshgah Hayat" insurance company, the first life insurance company in Azerbaijan, has been operating since 1998, "PASHA Hayat" and "Gala Hayat" insurance companies – since 2010, "XalqHayat" – since 2019 and "MegaHayat" insurance company – from 2021. The companies operate under license.

As can be seen from the analysis of Ateshgah's financial indicators for life insurance, presented in Fig. 5, the company's assets for the analyzed years amount to 36% or 35191089.66 AZN, including liabilities 35% or 27452586.25 AZN, and capital 12% or 2531268.42 AZN. Assets have decreased and the main reason for this is a decrease in applications to insurance companies due to the tightening of credit policies in banks after the devaluation of the national currency, and the emergence of economic stagnation in the insurance sector due to the COVID-19 pandemic. A key point to note in the asset analysis is that in all cases the company's assets, as well as liabilities and equity, are lower than the sector average. The main reason for this is that the assets of other companies are larger compared to Ateshgah life insurance company.

Despite the decrease in assets, the company's revenue in 2020 was expected to increase significantly. Thus, it increased by 36% or 12561048.74 AZN. The main reason for the increase in income is the increase of net insurance reserves by 3.4 times or 21557200.54 AZN due to the changes made in the normative and legal documents. In 2021, the 12.2% increase in the company's collection from direct insurance premiums was neutralized against the background of the decrease in the net insurance reserve, as a result, the company's income decreased by 24375254.4 AZN.

The increase in revenues in 2020 was also reflected in expenses, with company expenses increasing by 46.8%. Thus, the amount of insurance payments by the company increased by 2.1 times due to the impact of the pandemic. In the subsequent period, the company achieved cost optimization due to the approximate reduction of costs in this direction by half.

Pasha Life Insurance Company is the insurance company with the highest share in the insurance market of Azerbaijan. It suffices to name only a few financial figures for the company's financial capabilities to be clear to us. For example, its assets are 2.91 times the worst-case industry average, capital is 2.17 times higher, and income is 3.07 times
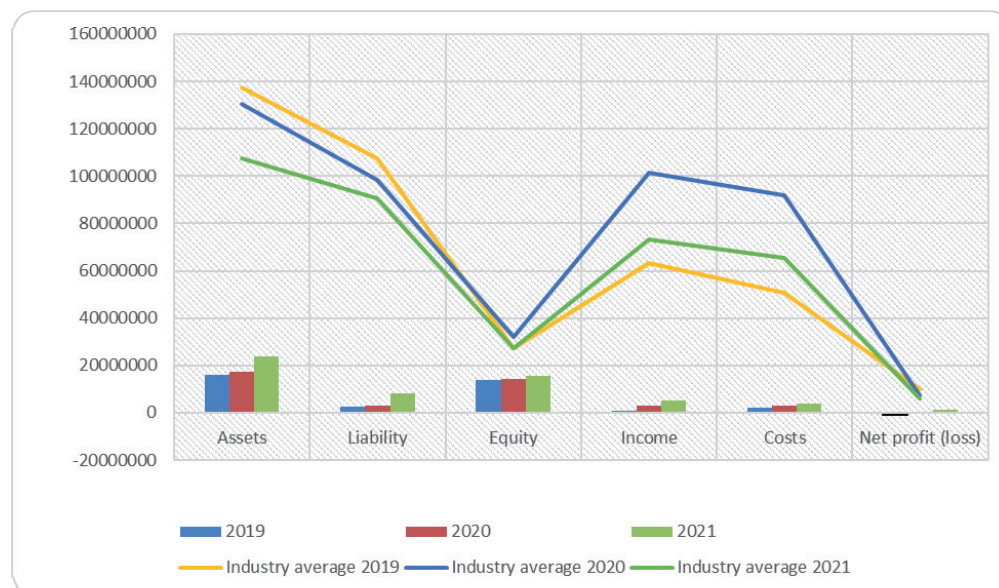
Fig.5. Financial indicators of Ateshgah Life insurance
*Source: The graph was compiled based on the financial report of Ateshgah Hayat insurance company
(https://www.ateshgah-life.com/reports) (10.12.2022)*

higher. Fig.6 shows the financial indicators of Pasha Insurance and the average indicators of the sector. As already mentioned, despite the financial stagnation in the banking sector and the economic impact of the pandemic, Pasha Life Insurance showed only a slight (1.5%) decline in assets. The financial condition of the company for the analyzed periods is much higher than the industry average, which once again proves that other companies have less resources than Pasha Life Insurance.

In 2020, the growth rate of the company's expenses (71.1%) was higher than the growth rate of its income (48.2%), but it did not prevent the income from "covering" the expenses. The same situation repeated in 2021. It should be noted that in accordance with the requirement of the normative decision on the regulation of net insurance reserves, as in other insurance companies, the income of the company has increased significantly. The increase in

Fig.6. Financial indicators of Pasha Hayat insurance
*Source: The graph was compiled based on the financial report of Pasha Hayat insurance company (https://
pasha-life.az/about/hesabatlar/) (10.12.2022)*

expenses was due to the payment of insurance fees related to the main operating expenses. Preliminary analysis results clearly show that the company has a sound financial structure.
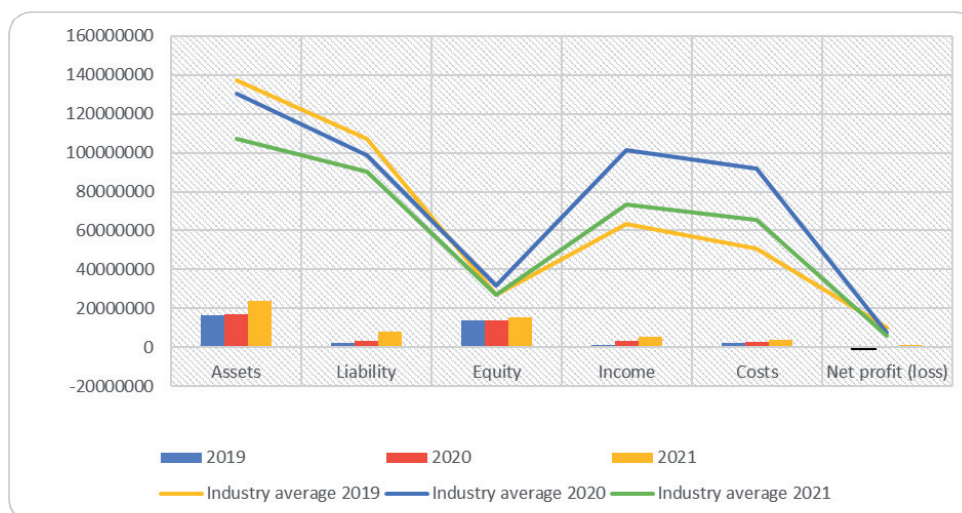
The financial indicators of the Gala life insurance company, which has the third largest share in the insurance market of Azerbaijan, are notable for their stability and positive dynamics during the analyzed period. Thus, for all three analyzed years, the indicators of assets, capital, income and net profit of the company increased, while there was a decrease in indicators of liabilities and expenses (Fig. 7).

Compared to 2019, in 2021, the company's assets increased by 27% due to the increase in cash and receivables, while its liabilities decreased by 5.4% or AZN 1,276,720.98. An interesting point that draws attention is the substantial increase in company capital in 2020, which was associated with the issuance of company shares.

The positive dynamics is also reflected in the company's income. In 2021 compared to 2019, against the background of 29% increase in fees and 2 times increase in other income, the negative result of the change in the net insurance reserve led to an overall increase in the company's income by 6%. Despite the fact that insurance payments,

which are considered the company's main operating costs, decreased by 49% in the analyzed period, the increase in returned insurance fees and administrative staff costs caused a total 11% decrease in the company's costs. It should be noted that the reduction of the costs of the insurance company can be considered as an indicator of its efficient financial management, and on the other hand, it can be an indicator of the company's refusal to fulfill its obligations.

Xalq Hayat insurance company, a "relatively young" company of the national insurance market, has a smaller share compared to its competitors, but its financial performance has been dynamically growing during the analyzed period. Compared to 2019, the company's assets increased by 45% in 2021, liabilities increased 2.5 times. The increase in liabilities in 2021 was due to an increase by 2797236 AZN in insurance reserves and by 2268156 AZN in other accounts payables. The capital, which is the last element of the report on the company's financial condition, increased by 11% in the analyzed period and was reached 5453105 AZN. The financial indicators of the young company are lower than the average indicators of the sector, as in the case of the "MegaHayat" insurance company (Fig.8).

Fig.7. Financial indicators of Gala Life insurance
Source: The graph was compiled based on the financial report of the Gala Life insurance company (https://qala.az/about/financial_indicators) (10.12.2022)
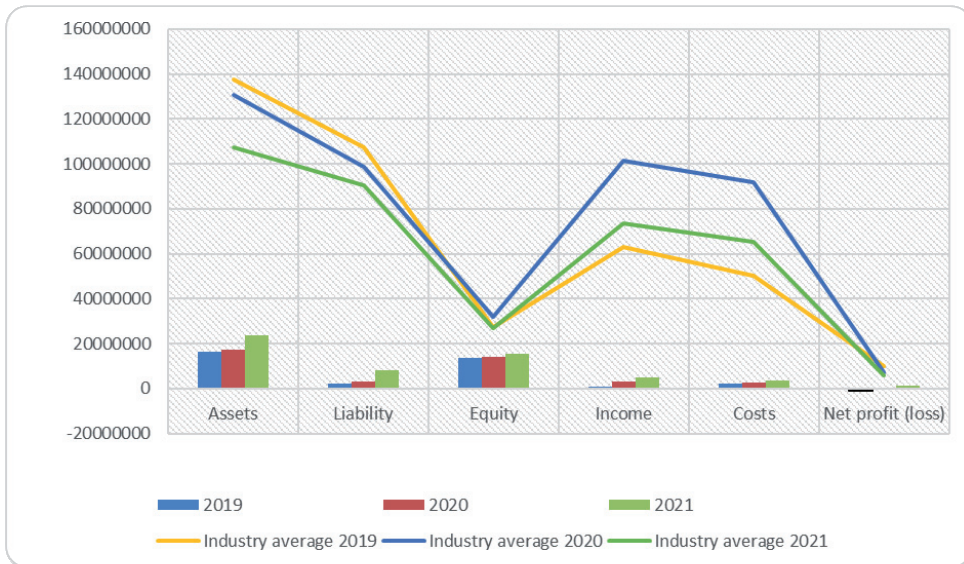
Fig.8. Financial indicators of Xalq Hayat insurance
Source: The graph was compiled based on the financial report of Xalq Hayat insurance company
(https://xalqhayat.az/haqqimizda/hesabatlar/) (10.12.2022)

The expansion of the company's sales network and the increase in the volume of insurance products also have an impact on its income. During the analyzed period, the company's revenues increased 4.5 times, the main reason for which was the uniqueness of the company's corporate products and competitiveness in the corporate sector. The fact that the direct insurance fees of the company increased by 6.5 times and reached 6112864 AZN supports this suggestion.

Another interesting fact to be mentioned in the analysis of the company's expenses is that the administrative expenses related to the expansion of the sales network increased by 666,969 AZN and amounted to 2,523,703 AZN in the analyzed period, which accounted for 68.4% of the total expenses in 2021. The negative figure suggests that the company's expenses are regulated, and the expenses directly related to the insurance payment are low.

A preliminary analysis of the financial statements of companies operating in the field of life insurance in Azerbaijan shows that the structure of their income differs from the structure of income of insurers operating in Western countries. In Western companies, 35-40% of the costs are mainly for insurance

payments, 10-20% for insurance reserves, and 10-12% for conducting work. These figures are figures arising from normal insurance activity. Unfortunately, there are insurance companies in the national insurance market where insurance payments make up only 5-10% of the total costs, and operating costs make up 40-50%.

Considering the indicators of the financial structure of companies, special attention should be paid to the ratio of insurance premiums and capital. The ratio of insurance premiums to capital shows how many times insurance premiums are generated from capital. Graph 8 shows the results of the ratio of life insurance companies (Fig. 9).

First of all, it is necessary to note that this ratio should not exceed 4 for European countries (Berkdemir & Nurullah, 2018). An increase above 4 indicates insufficient personal capital and increases the risk of the insurance company. The local insurance companies also operate in accordance with the mentioned optimum result. The result obtained in 2019 for the life insurance company Gala can be described as stabilizing due to capital increase through additional financing linked to the financial structure.
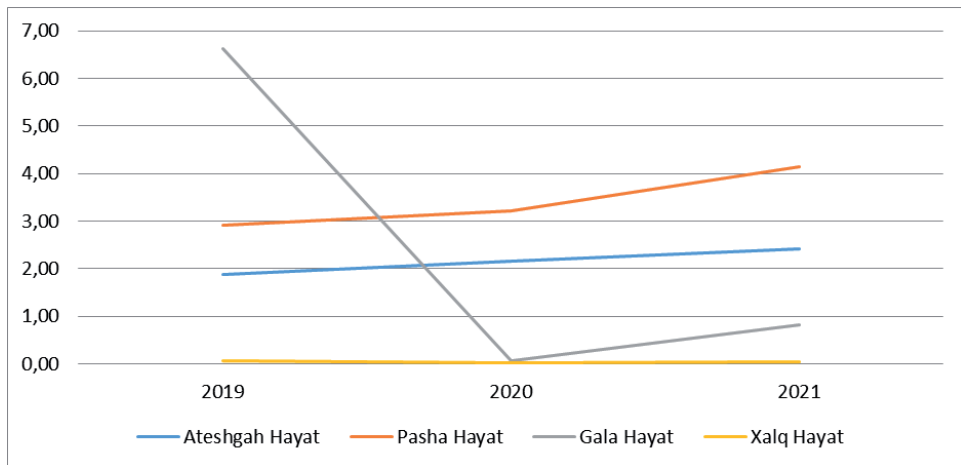
Fig.9. Results on insurance fee/capital ratio
Source: The graph is based on the insurance company's financial report

The Capital/Asset ratio provides important analytical information about the insurance company's ability to pay its long-term liabilities. The ratio describes what portion of the insurance company's assets are paid by the insurance company owners. If the ratio increases over time, it indicates that the company's management is successful. We believe that the ratio should be compared to the industry average on a company-by-company basis (Fig.10).

Compared to the non-life direction, the ability to fulfill obligations in the long-term increases in life insurance. Life insurance companies demonstrate higher management success than non-life companies. The analysis shows that Pasha Life Insurance Company, which is the leading enterprise of the national insurance market, has a lot of liabilities, and it ended up in the last place. The financing of more than 80% of the assets of the Pasha Life Insurance Company from its own assets suggests that the company is implementing a strict financial policy and reducing alternative financing opportunities. However, the optimization of the company
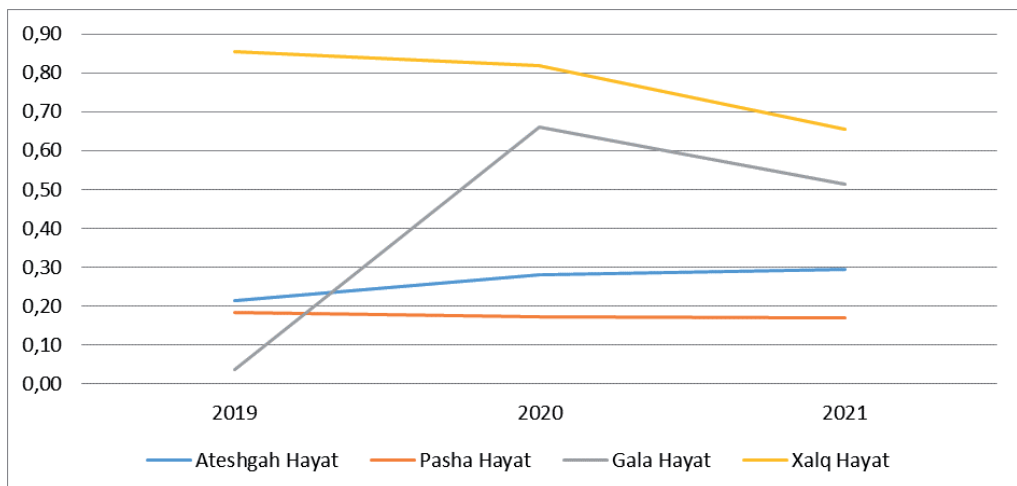
Fig.10. Results on the Capital/Assets ratio
Source: The graph is based on the insurance company's financial report

indicator over time is also observed. The positive traces of the capital investment of Gala Life Company are also clearly visible in this ratio.

For insurance companies that are financial intermediaries, the quality of their assets is very important in terms of solvency adequacy. The composition, distribution and quality of assets invested in bonds, stocks and real estate determine the overall quality of assets. Accordingly, the assets of insurance companies must have a liquidity structure that, on the one hand, can meet their cash needs and, on the other hand, generate income (Fig.11). The first coefficient studied in this direction is the current liquidity ratio. In insurance companies, the current ratio is calculated by dividing monetary assets and reserves by the sum of payables.

Liquidity analysis of companies gives food for thought. Against the background of substantial (2.3 times) increase in the current liabilities of the Ateshgah Life Insurance Company in 2019, in 2020, the company's liquidity indicator decreased, in 2021 it was 16.58. Another interesting point was observed in the Pasha insurance company – the company experienced a one-year increase in its liabilities in 2020 and a decrease in the corresponding indicator. The indicators of the Pasha Life Company have a relatively stable structure.

The other two ratios used for asset quality are based on the ratio of receivables to assets and personal funds. The index of insurance companies by years is presented in the table below.

It is also clearly observed from Table 1 that the ratio of receivables to assets is low for all companies. In all cases, the maximum value of the indicator is equal to 0.11, which indicates that only 11% of the company's products are forward sales, and the "probable non-returnable" assets are quite small. On the other hand, referring to the mentioned figures, we can say that the life insurance companies have a relatively aggressive sales policy, do not prefer term sales and ignore the possible portfolio of potential customers in the market.

A similar picture is observed in the ratio of receivables to capital. Indicators can be accepted at an acceptable level. The fact that the receivables of Ateshgah Life Insurance Company exceed 4 million AZN for the analyzed years, causes the coefficient to take an average value of 0.21, which can be considered relatively risky. However, as a general interpretation of the ratio, we should note that the company can compensate for possible risks arising from receivables by using only 20% of its capital. Positive dynamics are observed in the indicators of other companies. Thus, the capital investment in the Gala insurance company also affects its ratio and caused the indicator to decrease by 1.37 points in 2020 compared to 2019.
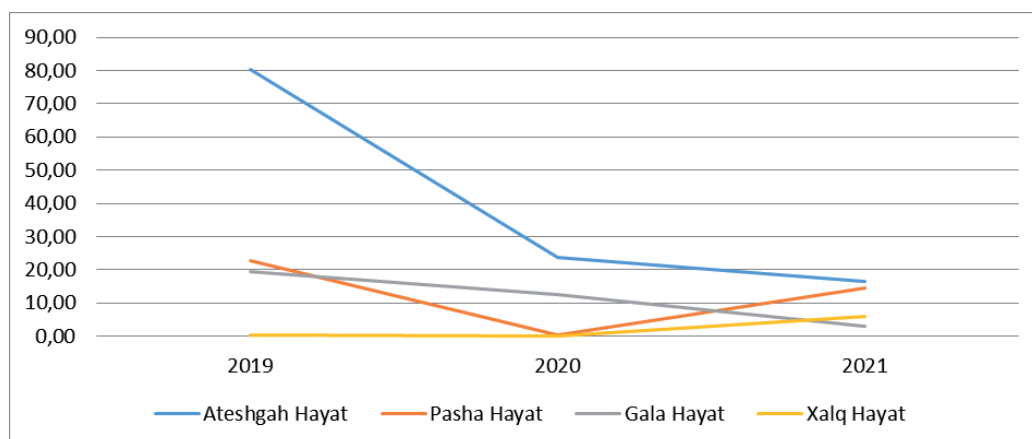
Fig.11. Results on the current liquidity ratio
Source: The graph is based on the insurance company's financial report

Table 1

Results of life insurance companies on receivables/assets and receivables/equity ratios

| №	Insurance companies	2019		2020		2021	
		Debtor debt /asset	Debtor debt /equity	Debtor debt /asset	Debtor debt /equity	Debtor debt /asset	Debtor debt /equity
1	Atashgah	0,04	0,17	0,07	0,23	0,06	0,21
2	Pasha	0,03	0,16	0,03	0,20	0,01	0,03
3	Qala	0,05	1,41	0,04	0,06	0,03	0,06
4	Xalq	0,11	0,13	0,05	0,06	0,03	0,05

Source: The table was compiled based on the insurance company's financial report

As a form of entrepreneurial activity, the main goal of an insurance organization is to make a profit. Insurance companies specializing in other insurance products, except for the insurance of biological assets and agricultural activity in the agricultural field, pay special attention to maintaining the level of profitability for the continuity of their activities. It should be noted thar insurance companies that insure biological assets and agricultural activities in the agricultural sector, in most cases receive a kind of guarantee for the continuity of their activities by receiving serious assistance (subsidies) from the state financial system. While agricultural insurance organizations in Azerbaijan receive financial assistance, life insurance organizations do not receive financial allocations, so these organizations pay special attention to profitability.

The first ratio used for profitability analysis is the ratio of net profit to accumulated insurance premiums. As the name suggests, the ratio analyzes the relationship between net profit and insurance fees and shows how many times the accumulated fees cover the net profit. The results of the companies are presented in Fig.12.

A ratio of more than 0.5 is considered optimal. However, as it can be seen, most of the local insurance companies have an indicator below the optimal level, and moreover, this indicator is not stationary. However, the increasing dynamics of Gala life and People's life insurance companies in the last two years show that they have a chance to maintain this pace in the future if there are no serious cataclysms in the economy.

Another ratio used in profitability analysis is the insurance payments/insurance
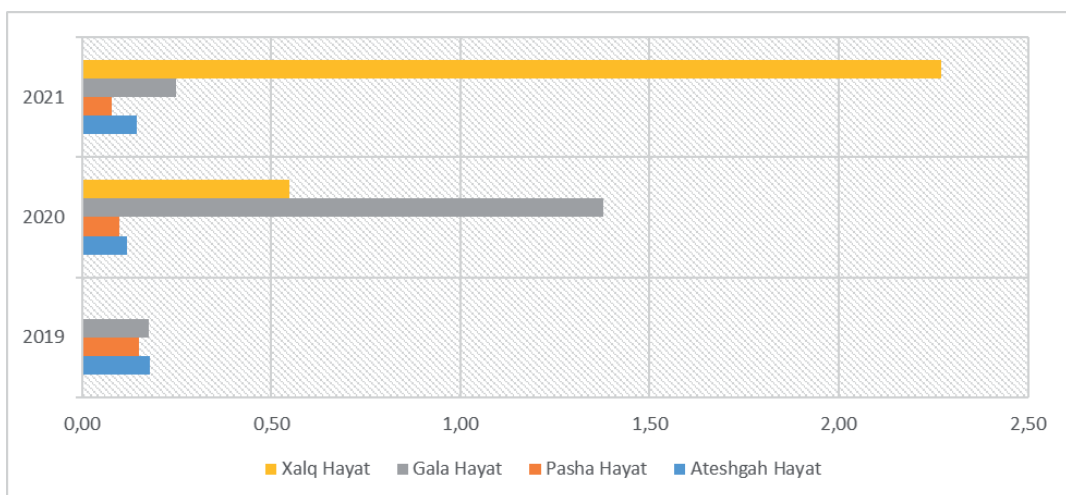
Fig.12. Results on net profit/insurance premium ratio
Source: The graph is based on the insurance company's financial report

fee ratio. In essence, the ratio, based on the ratio of the main items of income and expenses, shows what part of insurance payments is paid from insurance premiums collected from policyholders, and acts as a "trust index", proving how much of the collected money is spent. The optimal price of this coefficient varies depending on the position of the insurer and the policyholder. Thus, while the insurance company that allocates all the collected funds for the insured to payments for insurance events is considered "trustworthy", it is considered acceptable for the insurer to allocate a smaller portion of the collected funds to insurance events within certain limits. The results of local insurance companies are presented in Fig.13.

As can been seen from the graph, the payments differ significantly over the years. In 2019, since the public insurance company was newly established, it did not make an insurance payment due to an accident, therefore it was not included in the schedule. The remaining companies, which showed almost the same result, directed 46% of the total collected funds to compensation of insurance events.

In 2020, the numbers changed significantly. Of course, the main reason for this change can be considered the corona virus pandemic. All the remaining insurance companies, except the People's Life Insurance Company, spent more funds than the insurance fee collected in 2020 for the payment of insurance events. People's Life Insurance Company allocated AZN 5,000 funds to eliminate the consequences of the insurance event. In 2020, the Gala Life Insurance company invested 2.5 times more funds raised from insurance payments.

In 2021, the numbers changed even more. Thus, Ateshgah life and Pasha life insurance companies allocated more than 70% of the collected funds, and the other two companies allocated up to 25% for insurance payments. As it can be seen, experiencing different situations in three consecutive years makes it difficult to make a general interpretation of the results of the insurance payments/insurance fee ratio. A more objective analysis of the results on the relevant coefficient requires additional clarifying information and time.

The main activity costs of the insurance organization mean the costs incurred in connection with the implementation of the insurance activity, the ratio of these costs to the received insurance fee is determined by the ratio of the main activity costs to the insurance fee. The ratio represents the costs incurred by insurance companies for every 1 AZN insurance fee produced (Fig.14).
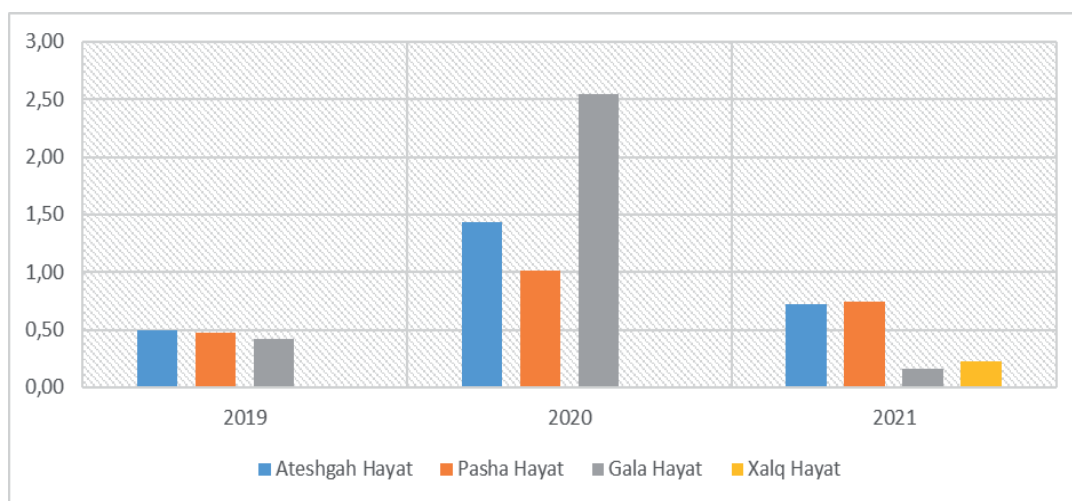
Fig.13. Results on insurance payments/ insurance premium ratio
Source: The graph is based on the insurance company's financial report
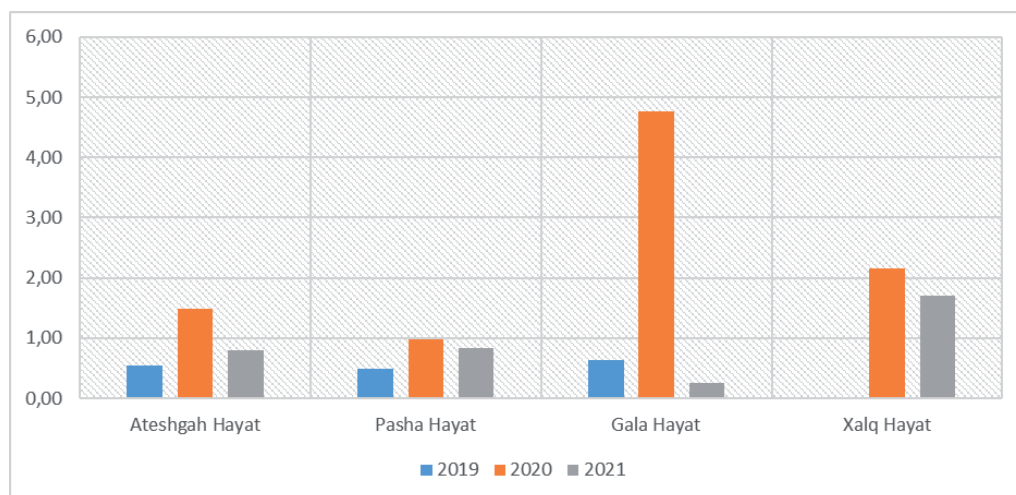
Fig.14. Results on main activity costs/ insurance premium ratio
Source: The graph is based on the insurance company's financial report

The low price of the indicator indicates the company's ability to collect insurance premiums and the profitability of sales channels. The numbers of the companies operating in the local insurance market show mainly low indicators. Due to the large sales volume of insurance products, Pasha Life Insurance Company had an average of 0.77 indicators for all three years, so it incurred 0.77 AZN for every 1 AZN of insurance fee. In Gala life insurance company, there was a fundamental change in the indicator due to the large amount of expenses in 2020, and the main reason for this was that the collection of insurance fees in 2020 decreased sharply (13252168.28 AZN) to 1590617.45 AZN. The same scenario can be observed in Pasha Life Insurance Company. Thus, the company's low collection of insurance fees resulted in a high value of the coefficient. However, the gradual decrease of the indicator means that the efficiency of the company's financial management is increasing, and in the future, more promising figures will be formed on the mentioned report item.

It is impossible to calculate and analyze the coefficients related to this field of activity, since it is impossible to determine the amount of net insurance premiums according to the accounting rules in the insurance organizations of Azerbaijan. However,

concrete ideas can be put forward about the analytical possibilities of the conservation and compensation coefficients used in this direction.

Risks that insurance companies do not transfer to reinsurance, but retain, are conservations. The ratio shows the actual risk assumed by insurance companies and also provides information on how many times the insurance company closes the reinsurance contract. The ratio is based on the ratio of net fees to gross premiums. There is no optimal indicator of the coefficient. Because although the high retention rate of companies with high capital does not cause problems for policyholders, the high retention rate of companies with insufficient capital may mean that the company's financial situation is problematic. That is why it is impossible to determine the optimal value for the conservation coefficient.

The compensation coefficient is an indicator that characterizes the possibility of payment for insured events that remained in force in the previous year and paid out in the current year. To put it more simply, the compensation ratio shows the damage caused and how much of these damages are covered by insurance companies. The coefficient is expected to be between 0.60 and 0.80. The fact that insurance companies have a high

level of compensation is reassuring for insured persons. If the insurance company's level of compensation is low, it means that the company is not sensitive to the payment of the insurance event. As a result, a low indicator damages the company's business reputation in the market and has a negative impact on the insured persons.

Conclusion

As insurance is one of the main parts of the financial sector, the risk factors of the market economy are the most optimal means for splitting and diversifying risks under the conditions. On the other hand, insurance, whose main purpose is to ensure profitability, is also a manifestation of entrepreneurial ability, a financial institution. The stable operation of this institution and continuous analysis of its solvency are very important for both company owners, financial market participants, and government bodies. Thus, meeting the needs of interested parties will increase the profit of the company, increase the confidence of the insured and expand the "insurance culture", as well as serve to regulate the financial markets for government bodies and mobilize temporarily freed money funds.

Unfortunately, the rules for conducting financial analysis for the purpose of regulating the activity in the insurance system in Azerbaijan have not been defined. Therefore, the formation of a single framework for all subjects is important for the sustainability and evaluation of the companies' activities from the same context. In addition, the current reporting procedure for calculating the conservation and compensation coefficients used in international practice needs to be fully adapted to the requirements of international standards. From the analysis of life insurance companies, a specific proposal has emerged, which includes optimization of sales channels and costs, enhancement of financial inclusion, and formation of additional reserves for sustainability. We must not forget that sector indicators of life and non-life insurance companies are considered as important indicators for commenting and drawing conclusions about the future of the sector. In addition, the share of the insurance sector in the overall economy and its contribution to growth are also important indicators.

It is an undeniable fact that the insurance sector, which is an important component of the financial system, has a positive effect on economic growth, especially in developed countries. However, in countries where the financial system is partially developed, including Azerbaijan, the banking sector dominates the insurance sector in the financial system. Therefore, the insurance sector moves forward in parallel with the pace of development of the markets. Nevertheless, insurance contributes to the economy by performing the function of financial intermediation, and carrying out work in the above-mentioned directions will encourage a more confident view of the process.

Bibliography

1. Akyuz, Y., Kaya, Z. (2013). Financial performance analysıs and evaluation of the non-life and lıfe pension insurance sector in Turkey. *Journal of Social Economic Research*, no. 26, pp. 355-371. (In Turkish)

2. Başpınar, A. (2005). Application of financial analysis techniques to insurance company financial statements. *Journal of Finance*, no. 159, pp. 4-35. (In Turkish)

3. Basturk, F. H. (2019). Measuring the performance of the Turkish insurance sector in 2007-2018 using the ratio analysis method and the impact of the sector on economic growth. *Canakkale Onsekiz Mart University International Journal of Social Sciences*, no.2, pp. 235-264.

4. Berkdemir, S., Nurullah, A. (2018). Ratio Analysis and Scoring Method in the Insurance Sector. *Sakarya Economic Journal*, no. 7, pp. 70-91. (In Turkish)

5. Born, P., Bujakowski, D. (2022). Economic transition and insurance market development: evidence from post-communist European countries. *The Geneva Risk and Insurance Review*, no. 47(1), pp. 201-237.

6. Bulbul, S., Kose, A. (2016). Fınancıal performance analysıs of the Turkish ınsurance sector usıng the promethee method. *Marmara University Journal of Economic and Administrative Sciences*, no. 1, pp. 187-210.

7. Burca, A. M., & Batrinca, G. (2014). The determinants of financial performance in the Romanian insurance market. *International journal of academic research in accounting, finance and management sciences*, no. 1, pp. 299-308.

8. Chen, R., Wong, K. A. (2004). The determinants of financial health of Asian insurance companies. *Journal of risk and insurance*, no. 3(71), pp. 469-499.

9. Dankiewicz, R., & Simionescu, M. (2020). The insurance market in Romania: a macroeconomic and a microeconomic approach. *Transformations in Business & Economics*, no. 1(49), pp. 248-261.

10. Hasanova, A. (2015). Life insurance and its role in the insurance system of Azerbaijan. *Journal of Qafqaz university- economics and administration*, no. 1, pp. 95-101. (in Azerbaijani)

11. Ibrahimov, E., Huseynov, M., Mammadova, A. (2015). Practicum on insurance business. Baku, MBM Publ, 496 p. (in Azerbaijani)

12. Ibrahimov, E., Huseynov, M., Salahov, E., Abbasova, Y. (2017). Insurance business. Baku, Ecoprint Publ. 421 p. (in Azerbaijani)

13. Joo, B. (2013). Analysis of Financial Stability of Indian Non-Life Insurance Companies. *Asian Journal of Finance & Accounting*, no. 5(51), pp. 306-319.

14. Khankishiyev , B., Abdullayev , P. (2004). Insurance Business. Baku, Adiloglu Publ, 186 p. (in Azerbaijani)

15. Malik, H. (2011). Determinants of insurance companies profitability: an analysis of insurance sector of Pakistan. *Academic research international*, no 3, pp. 315–321.

16. Ozen, E., Grima, S. (2020). The Turkish Life Insurance Market: An evaluation of the current situation and future challenges. *In Life Insurance in Europe*, Switzerland, Springer Nature AG, pp. 45-58.

17. Prokopchuk, O., Nesterchuk, Y., Tsymbalyuk, Y., Rolinskyi, O. (2019). Current trends in agricultural insurance market operation in Ukraine. *Problems and Perspectives in Management*, no. 3, pp. 57-75.

18. Wang, Y., Zhang, D., Wang, X., Fu, Q. (2020). How does COVID-19 affect China's insurance market? *Emerging Markets Finance and Trade*, no. 2, pp.2350-2362.

19. Zeynalli, E. (2020). A review of theoretical approaches to financial analysis. *Креативная экономика* [Creative economy], no. 10, pp. 2367-2382. (in English)

20. Zeynalli, E. (2021). Preliminary analysis of the financial situation of the business. Trudy 4. *"Region iqtisadiyyatı: müasir aspektlər və aktual problemlər"* mövzusunda respublika elmi konfransı [Republican scientific conference on "Regional economy: modern aspects and current issues]. Sumgait, pp. 225-229. (in Azerbaijani)

References

1. Akyuz, Y., & Kaya, Z. (2013). Financial performance analysıs and evaluation of the non-life and lıfe pension insurance sector in Turkey. *Journal of Social Economic Research*, 355-371.

2. Başpınar, A. (2005). Application of financial analysis techniques to insurance company financial statements. *Journal of Finance*, 5-35.

3. Basturk, F. H. (2019). Measuring the performance of the Turkish insurance sector in 2007-2018 using the ratio analysis method and the impact of the sector on economic growth. *Canakkale Onsekiz Mart University International Journal of Social Sciences*, 235-264.

4. Berkdemir, S., & Nurullah, A. (2018). Ratio Analysis and Scoring Method in the Insurance Sector. *Sakarya Economic Journal*, 70-91.

5. Born, P., & Bujakowski, D. (2022). Economic transition and insurance market development: evidence from post-communist European countries. *The Geneva Risk and Insurance Review*, 201-237.

6. Bulbul, S., & Kose, A. (2016). Fınancıal performance analysıs of the Turkısh ınsurance sector usıng the promethee method. *Marmara University Journal of Economic and Administrative Sciences*, 187-210.

7. Burca, A. M., & Batrinca, G. (2014). The determinants of financial performance in the Romanian insurance market. *International journal of academic research in accounting, finance and management sciences*, 299-308.

8. Chen, R., & Wong, K. A. (2004). The determinants of financial health of Asian insurance companies. *Journal of risk and insurance*, 469-499.

9. Dankiewicz, R., & Simionescu, M. (2020). The ınsurance market ın Romanıa: a macroeconomıc and a mıcroeconomıc approach. *Transformations in Business & Economics*, 248-261.

10. Hasanova, A. (2015). Life insurance and its role in the insurance system of Azerbaijan. *Journal of Qafqaz unıversıty- economıcs and admınıstratıon*, 95-101.

11. Ibrahimov, E., Huseynov, M., & Mammadova, A. (2015). *Practicum on insurance business.* Baku: MBM.

12. Ibrahimov, E., Huseynov, M., Salahov, E., & Abbasova, Y. (2017). *Insurance business. Textbook for high school students.* Baku: Ecoprint.

13. Joo, B. (2013). Analysis of Financial Stability of Indian Non Life Insurance Companies. *Asian Journal of Finance & Accounting*, 306-319.

14. Khankishiyev , B., & Abdullayev , P. (2004). *Insurance Business.* Baku: Maarif.

15. Malik, H. (2011). Determinants of insurance companies profitability: an analysis of insurance sector of Pakistan. *Academic research international*, 315–321.

16. Ozen, E., & Grima, S. (2020). The Turkish Life Insurance Market: An evaluation of the current situation and future challenges. *In Life Insurance in Europe*, 45-58.

17. Prokopchuk, O., Nesterchuk, Y., Tsymbalyuk, Y., & Rolinskyi, O. (2019). Current trends in agricultural insurance market operation in Ukraine. *Problems and Perspectives in Management,*, 57-75.

18. Wang, Y., Zhang, D., Wang, X., & Fu, Q. (2020). How does COVID-19 affect China's insurance market?. . *Emerging Markets Finance and Trade*, 2350-2362.

19. Zeynalli, E. (2020). A review of theoretical approaches to financial analysis. *Креативная экономика*, 2367-2382.

20. Zeynalli, E. (2021). Preliminary analysis of the financial situation of the business. *Republican scientific conference on "Regional economy: modern aspects and current issues* (ss. 225-229). Sumgait : SDU.

INNOVATIVE METHODOLOGY IN FINANCIAL ANALYSIS OF INSURANCE ORGANIZATIONS

Elay Zeynalli, Azerbaijan State Agricultural University, Ganja (Azerbaijan).
E-mail: elayzeynalli@yahoo.com

Insurance, as one of the main methods of distributing various risks that arise in an open market economy, is itself subject to certain risks. Its consistency, financial stability, as well as the sufficiency of financial results for the recovery of activities in the future are critical not only for insurance companies, but also for the regulatory body of financial bases and reinsurance subjects. It is important to ensure

financial stability and confidence in financial markets, especially for countries with transition economies that have transformed from a closed economy to an open one. The article includes the analysis of the insurance organizations of Azerbaijan. Based on a systematic approach, analysis, synthesis, graphical and statistical methods, the main indicators of the insurance market and insurance organizations for the last time have been studied.

The article examines the peculiarities of the formation and development of insurance relations in Azerbaijan, analyzes the stages of insurance development, assesses the impact of state decisions on the regulation of insurance organizations on their financial condition. The author has examined the dynamics of insurance premiums and insurance payouts in Azerbaijan over the past 11 years, the number of insurance organizations as the main participants in the insurance market, the number of concluded insurance contracts as the main indicator of the formation of insurance culture, and the prospects for the development of the insurance market.

The main purpose of conducting financial analysis in the insurance sector is to maintain trust in the financial markets, assess the reliability of the insurer and comply with public interests. The second part of the article examines the peculiarities of this process, methods of analysis, financial indicators used in planning and analysis of the process.

In the third part of the article, the main financial indicators of the life insurance companies operating in Azerbaijan for the last three years have been analyzed based on the financial statements, as well as financial indicators intended for use in the research process.

Based on the analysis results, the recommendations have been given regarding directions for the development of the insurance market in Azerbaijan, improvement of financial reporting in insurance organizations, improvement of financial inclusion and strengthening of the stability of insurance companies' activities.

Одержано 20.12.2022.