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EVALUATION OF FINANCIAL STABILITY OF THE INSURANCE SECTOR IN MONGOLIA

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Highlights

- The study evaluates the financial stability of Mongolia’s insurance sector from 2019 to 2023.
- The analysis is based on the "Care rating" method and the Kennu ratio, commonly used internationally for financial assessment.
- Key indicators assessed include income ratio, liquidity ratio, and solvency indicators.
- The insurance sector in Mongolia is small, contributing less than 1% to GDP, compared to 10% in developed Asian markets.
- Findings highlight stable loss ratios but excessive operational expenses, affecting financial sustainability.
- The study underscores the need for improved risk management, better equity handling, and strategic financial stability planning.

Abstract

***I**ntroduction:* Insurance activity is defined as the obligation of an insurer to compensate for losses or provide an agreed indemnity in the event of an insured incident, as stipulated by the Insurance Law of Mongolia. Recent amendments to this law and the Law on Public and Local Government Property Procurement in 2022 expanded insurers' roles, allowing them to issue guarantees and sureties beyond contracting entities. The financial stability of insurance companies is a critical factor in ensuring their ability to meet financial obligations and maintain market confidence. In Mongolia, the insurance sector remains relatively small, necessitating a comprehensive evaluation of its financial health to support industry growth and stability.

***M**ethods:* This study utilizes the "Care rating" method, widely applied internationally for assessing the financial stability of insurance companies, alongside the Kennu ratio. The analysis covers financial reports and publicly available data from commercial insurance companies between 2019 and 2023.

Results: The findings indicate that while the loss ratio has remained stable, high operational expenses continue to challenge the sector's financial sustainability. Liquidity ratios demonstrate insurers' ability to meet short-term obligations, but solvency adequacy varies, highlighting inconsistencies in risk management strategies.

***D**iscussion:* The results underscore the necessity of enhancing financial stability through improved risk management and more efficient equity utilization. Given the limited contribution of the Mongolian insurance sector to GDP, strengthening financial resilience is imperative for its long-term development and competitiveness in the broader financial market.

Keywords

Insurance, financial stability, payment capacity, financial responsibility.

JEL classification: G21, G22, G23.

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Introduction

The financial stability of the insurance sector is a crucial aspect of economic resilience, influencing risk management and overall market confidence. In Mongolia, the insurance market is regulated under the Insurance Law, which was amended in 2022 to enhance industry operations. Despite these regulatory improvements, the sector remains underdeveloped compared to international standards, with a low contribution to GDP. Given the sector's critical role in the

broader financial system, understanding its financial health is essential for formulating effective policy recommendations and ensuring long-term sustainability.

Theoretical Basis

The behavior of market participants in the financial market can be explained by "Game Theory," which suggests that the market functions as a game, and providing accurate and truthful information is a crucial factor in saving time and costs. The "Lemon Market Theory" and "Signaling Theory," which are derived from Game Theory, address the issue of asymmetric information. In the "Lemon Market Theory," to avoid the creation of information asymmetry in the financial market, it is important to use third-party credit rating agencies, which provide market participants with the necessary information, aiming to eliminate "information asymmetry [1]. Nobel laureate G.A. Akerlof (1970), in his work on "Lemon Market Theory," argued that in the insurance sector, the inability to assess whether an entity can bear the risks of others indicates the presence of information asymmetry. Insurance participants, while agreeing on the risks covered by the contract, should ensure transparency regarding the insurer's financial capacity and risk-bearing ability, as this fosters trust with policyholders through open and accessible information. V.P. Crawford and Sobel (1982) emphasize the importance of having direct access to information for policyholders who are making decisions without prior knowledge [8]. Research by M. Battaglini (2002) [7], R.J. Aumann and S. Hart (2003) [1], V. Krishna and Morgan J. (2004) [3], M. Ottaviani and P.N. Sorensen (2006) [4], N. Kartik, Ottovanii M., and F. Squintani (2007) [5], S. Mullainathan, J. Schwartzstein, and A. Shleifer (2008) [6] also stress the importance of eliminating information asymmetry and highlight the significance of transparent and balanced information in decision-making.

Methodological Basis

Since 1970, the European Union has established limits for the payment capacity of insurance companies and has followed the "Solvency I" framework since 1997. In 2006, "Solvency II" was introduced to prevent insurers from facing payment capacity risks by introducing a comprehensive risk evaluation framework. This framework presented new standards for asset and liability evaluation. The "Solvency II" framework, implemented on January 1, 2016, provides insurance companies with the opportunity to create their own models, with a focus on ensuring these models are based on optimal risk management principles. Companies with limited internal capabilities can apply standard methods. The "CARE rating" method, widely used internationally, provides a standardized framework for evaluating the financial stability and payment capacity of insurance companies. This method involves three key indicators: the income ratio, liquidity ratio, and solvency indicators.

Income Ratio

Insurance companies require profitable operations to continue functioning. The profitability measurement in "CARE rating" focuses on an insurer’s strategy,

competitiveness, growth potential, and ability to generate sustainable profits efficiently. The "CARE rating" method analyzes the following functions (Fig 1).

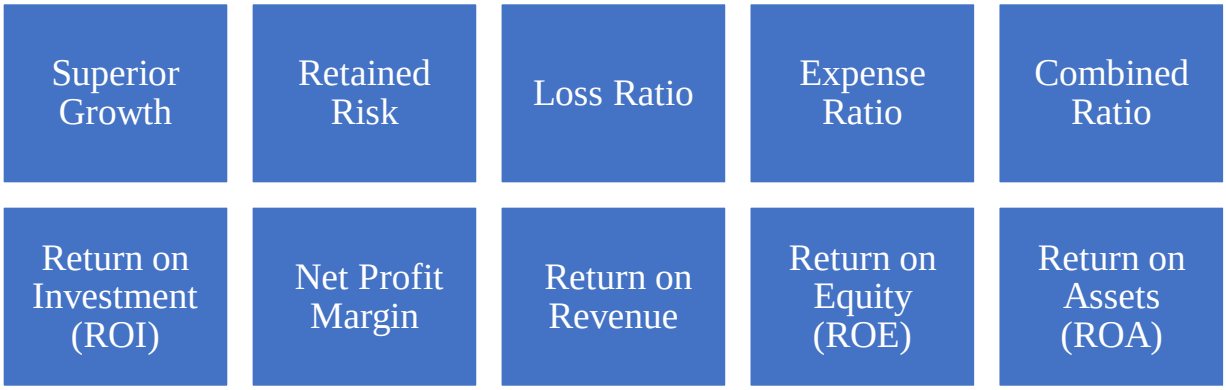

Fig. 1. Liquidity Ratio

Source: compiled by the authors using data from [2;3]

Good liquidity is essential for an insurance company to promptly fulfill its obligations to policyholders. The insurer's liquidity depends on its ability to meet financial obligations through reliable, diversified, and liquid cash or investments, or operational cash flows. A high level of liquidity enables insurers to meet unexpected cash needs without selling investments prematurely, avoiding potential losses due to temporary market conditions or tax implications. According to the "CARE rating" analysis method, the liquidity ratio is defined as follows (Fig 2).

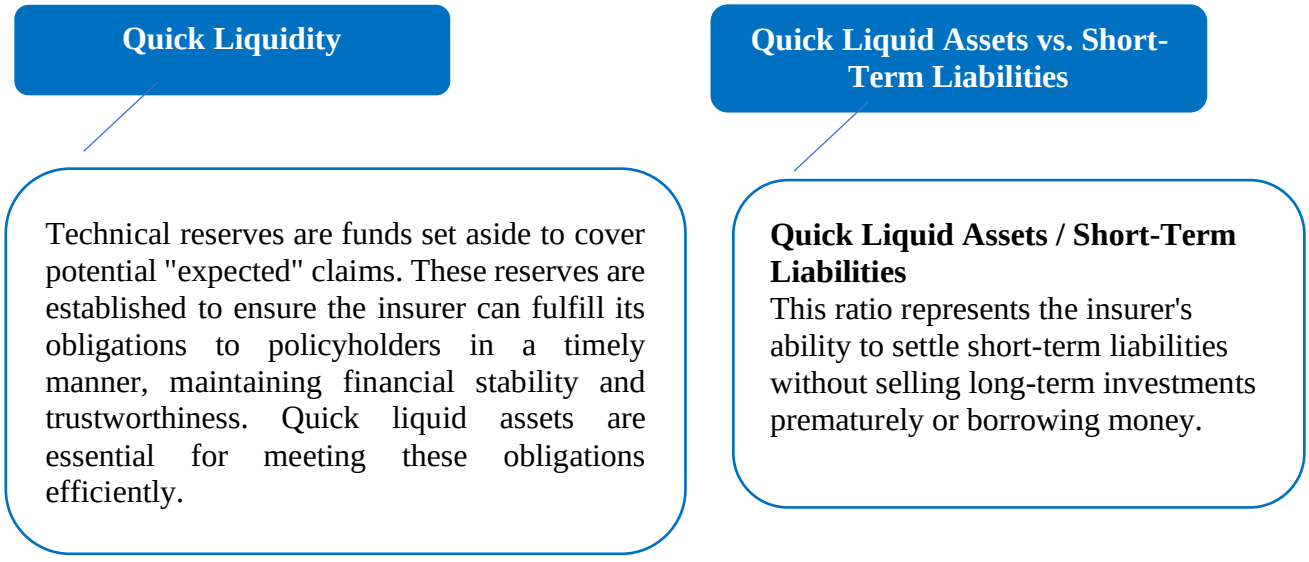

Fig. 2. Liquidity Ratio, analysis method

Source: compiled by the authors using data from [1;2]

Solvency Indicators

Solvency adequacy forms the foundation for fulfilling financial responsibilities and obligations toward policyholders.

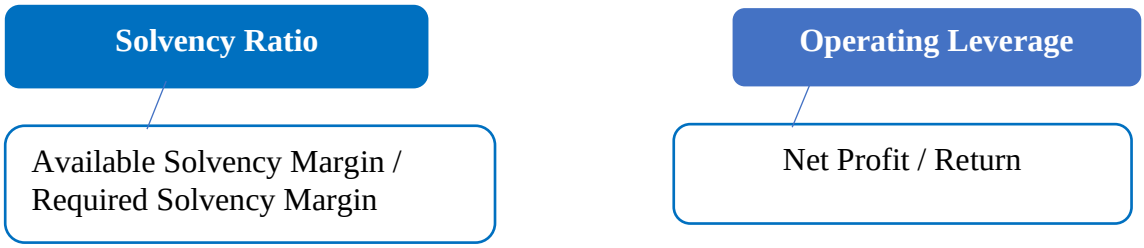

Fig. 3. Solvency Indicators

Source: compiled by the authors using data from [2; 4]

Current State of the Insurance Sector in Mongolia

As of the first quarter of 2024, the insurance market in Mongolia operates under the licenses granted by the Financial Regulatory Commission. The market includes 15 general insurance companies, 2 long-term insurance companies, 1 reinsurance company, 63 insurance intermediaries, and 24 insurance damage assessors.

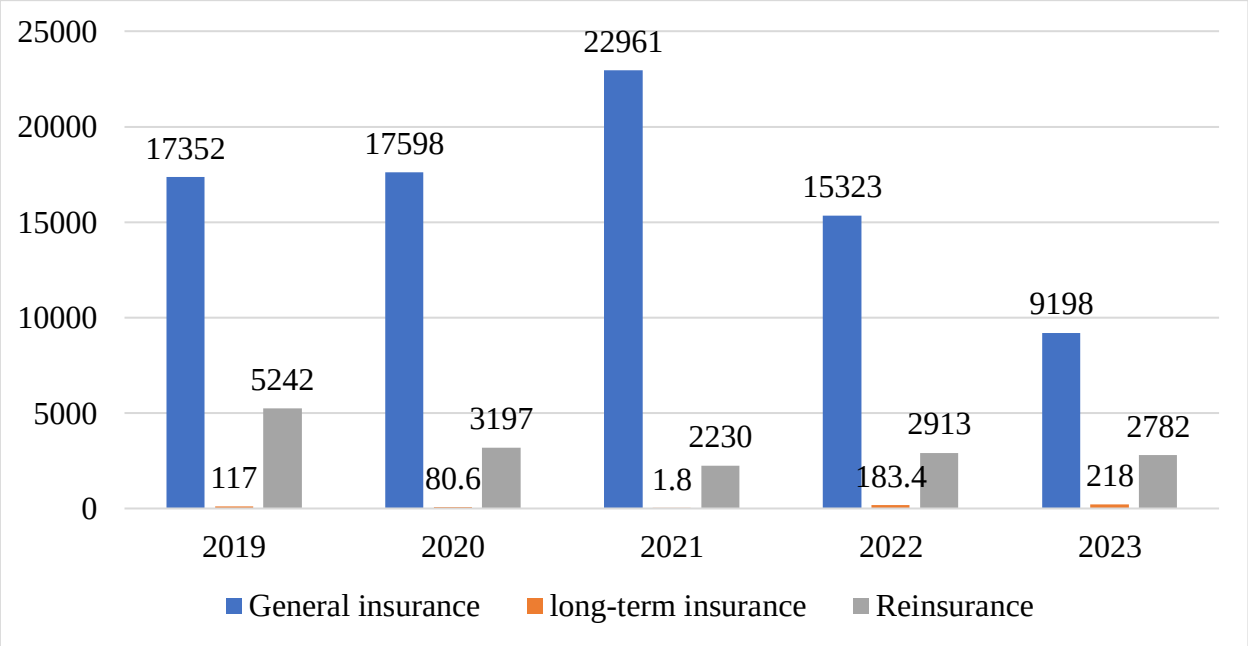

Fig. 4. Total Assets of Companies Operating in the Insurance Sector, billion MNT

Source: compiled by the authors using data from [11; 12]

As of December 30, 2023, the total assets of insurance companies reached 551.4 billion MNT, reflecting a 16.1% increase compared to the previous year. Over the past five years, the total assets of insurance and reinsurance companies experienced the highest growth in 2018, with an increase of 35.6%, while the lowest growth was recorded in 2020 at 4.4%. Minimal growth was observed during 2020–2022, but starting from 2023, a potential increase in the growth rate is evident.

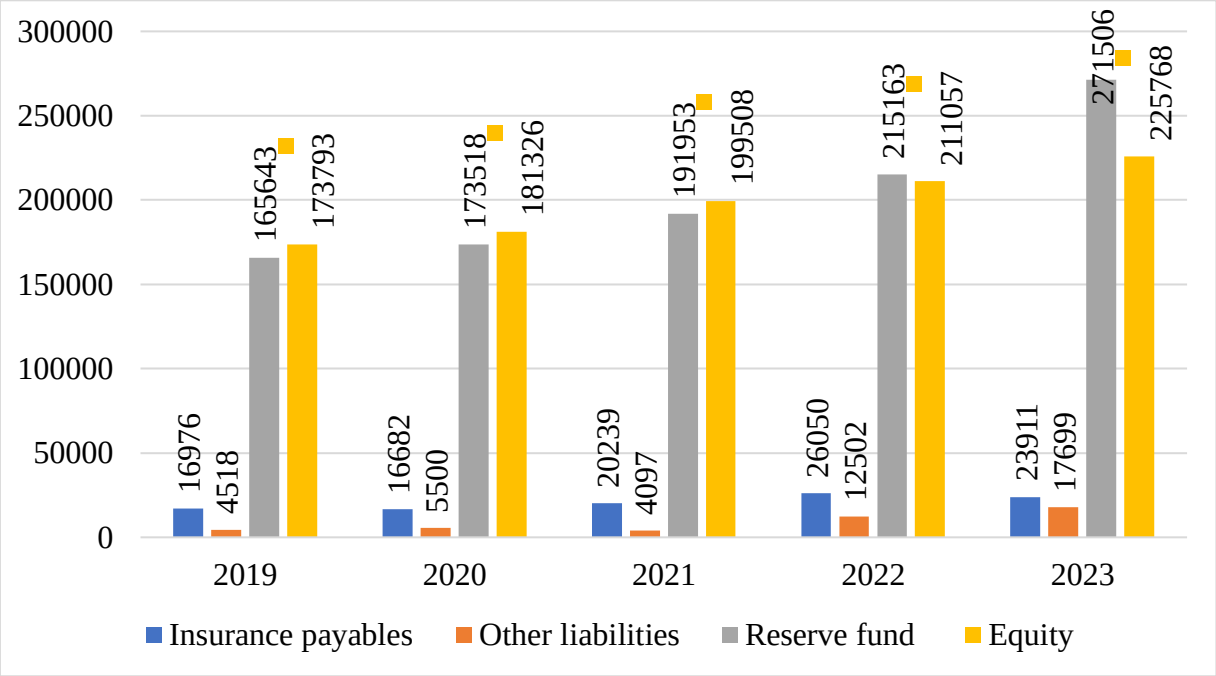

Fig. 5. Liabilities and Equity of the Insurance Sector, billion MNT

Source: compiled by the authors using data from [11; 12]

Out of the total liabilities, 10.8% and 1.2% are attributable to reinsurance and long-term insurance, respectively. Similarly, 13.7% and 5.6% of the equity, 12.5% and 1.2% of the reserve fund, 6% and 0.2% of other financial liabilities, and 0.1% of insurance payables are associated with reinsurance and long-term insurance, respectively.

Financial Stability and Solvency Analysis and Conclusion Based on Consolidated Information in the Insurance Sector

Using data from 2019–2023, the credit rating was assessed using the "CARE rating" analysis method, focusing on the following three indicators.

Table 1. Income Ratio Calculation

Indicator	Calculation formula
Premium Growth Rate	$(TPI_t - TPI_{(t-1)}) / TPI_{(t-1)} * 100$ TPI – Total Premium Income; t – Current Year; t-1 – Previous Year
Retained Risk	Net Premium / Total Premium Income
Loss Ratio	Net Claims Risk T / Earned Premium T
Expense Ratio	Operating Expenses / Earned Premium
Combined Ratio	Loss Ratio + Expense Ratio
Return on Investment (ROI)	Total Investment Income / Average Investment
Net Profit Ratio	Net Profit After Tax / Earned Premium
Revenue Yield	Profit Before Tax / Total Revenue
Return on Equity (ROE)	Net Profit After Tax / Average Equity
Return on Assets (ROA)	Net Profit After Tax / Average Total Assets

Source: compiled by the authors

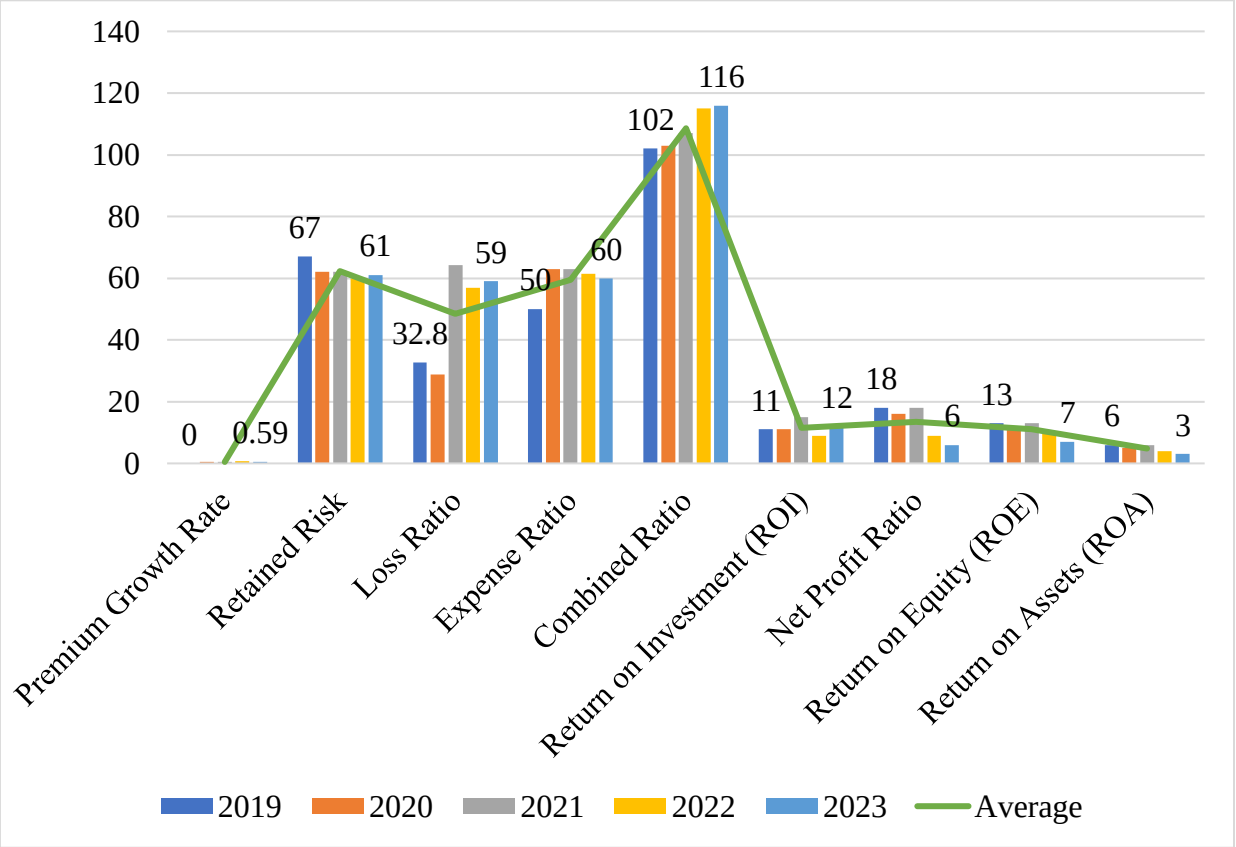

Fig. 6. Income Ratio Calculation

Source: Calculations by the authors

Income Ratio Analysis (2019–2023):

- The **loss ratio** remained stable and within acceptable limits, indicating that insurance companies' claims expenses are relatively steady and manageable.
- **Expense and combined ratios** exceeded acceptable thresholds, highlighting relatively high administrative and operational costs in the insurance sector.
- The **retained risk ratio** was inconsistent and failed to meet acceptable benchmarks, suggesting a need for improvement in risk management.
- **Return on investment (ROI)** was relatively stable during the period.
- **Return on assets (ROA)** showed consistent growth, contributing positively to the development of the insurance sector.

Liquidity Ratio Analysis:

- High liquidity ensures that insurers can fulfill obligations to policyholders promptly.
- Liquidity depends on reliable, diversified, and liquid assets or operating cash flows to meet financial responsibilities.
- Key indicators of liquidity include:

– **Technical reserves:** Funds set aside for anticipated claims.

– **Short-term liabilities as a percentage of liquid assets**, as assessed by the "CARE Rating" methodology.

The financial analysis of Mongolia's insurance sector from 2019 to 2023 indicates a stable loss ratio and steady ROI, suggesting resilience in managing claims and investments. However, high administrative costs and an inconsistent retained risk ratio point to inefficiencies that could undermine long-term stability. While ROA growth reflects positive sectoral development, the elevated expense and combined ratios highlight the need for cost optimization. Strong liquidity ensures insurers can meet obligations, but maintaining sufficient technical reserves and improving risk management strategies will be critical for enhancing financial sustainability.

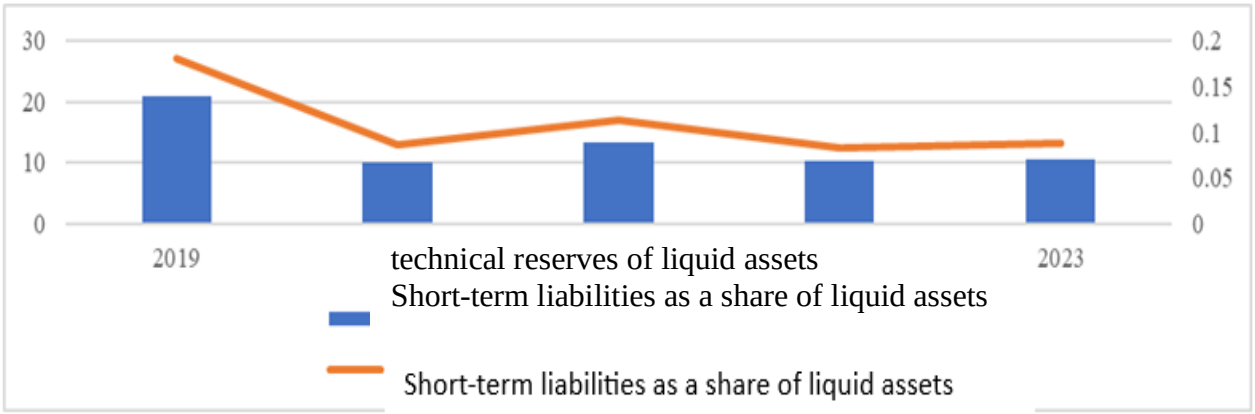

Fig. 7. Liquidity Ratio Calculation

Source: Calculations by the authors

Solvency Adequacy Analysis

Solvency adequacy forms the foundation for fulfilling obligations to policyholders. There is a **positive correlation between total assets and solvency adequacy**, meaning that an increase in total assets leads to enhanced solvency capacity. Additionally, the **total claims paid** have a positive correlation with solvency adequacy, indicating that rising claims payments necessitate an improvement in solvency capacity.

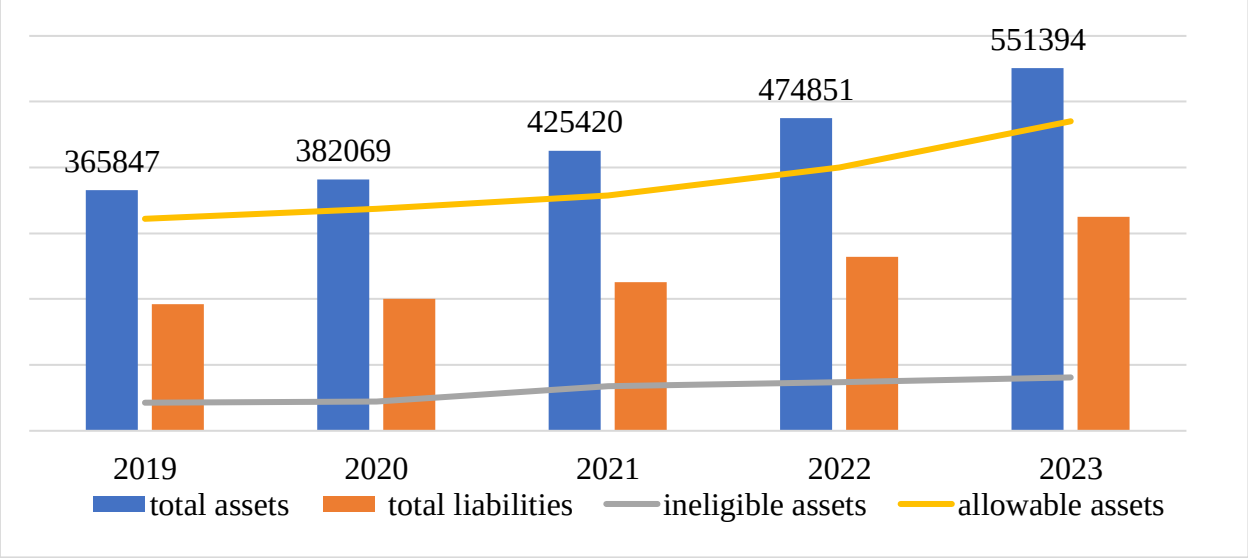

Fig. 8. Insurance Companies' Solvency, billion MNT

Source: Calculations by the authors

Using the "Care rating" analysis method, alongside the financial reports and numerical data from all insurance companies in the sector for the years 2019–2023, a financial ratio analysis was conducted in accordance with the regulations approved by the Financial Regulatory Commission. Table 2 presents the formulas for calculating the ratios, while Table 3 displays the calculated values.

Table 2. Ratio Indicators

№	Ratio Indicators	Definitions
1	Kenney Ratio	Total Premium Income/Owner's Equity
2	Net Risk Ratio	Net Premium Income/Owner's Equity
3	Receivables Test	Premium Receivables/Owner's Equity
4	Safety Ratio	Claims Net Reserve/Owner's Equity
5	Owner's Equity Proportion in Liabilities	Owner's Equity/Debts and Required Reserves by Regulator

Source: compiled by the authors using data from [10; 12]

Table 3. Ratio Indicators-calculation

№	Ratio Indicators	Optimal Ratio	2019	2020	2021	2022	2023
1	Kenney Ratio	100% < K < 300%	266%	254%	208%	144%	175%
2	Net Risk Ratio	Less than or equal to 300%	178%	159%	192%	92%	106%
3	Receivables Test	Greater than or equal to 20%	17%	29%	41%	21%	17%
4	Safety Ratio	Less than or equal to 250%	35%	56%	49%	47%	42%
5	Owner's Equity Proportion in Liabilities	Greater than or equal to 25%	30%	25%	22%	21%	24%

Source: Calculations by the authors

In the Kenney ratio, the net risk ratio positively affects the solvency ratio, while the solvency ratio is negatively impacted by the net risk ratio. The research indicates that increasing the net risk ratio, reducing reinsurance premiums, and properly managing owner's equity will significantly influence financial stability. From 2019 to 2023, while an increase in premium income positively impacted financial stability, the significant rise in the loss ratio and expense ratio indicates a trend toward financial instability in the sector.

Analysis highlights a sector undergoing financial adjustments, with decreasing risk retention and fluctuating solvency indicators. The declining Kenney Ratio and Owner’s Equity Proportion in Liabilities signal potential vulnerabilities, while improvements in the Safety Ratio and Net Risk Ratio suggest efforts toward risk mitigation. Strengthening capital management, improving premium collection efficiency, and optimizing risk retention strategies will be essential for ensuring long-term financial stability in Mongolia’s insurance sector.

Discussion

A detailed examination of Mongolia's insurance sector reveals significant financial stability challenges, despite maintaining a stable loss ratio. The declining Kenney Ratio and Owner's Equity Proportion in Liabilities indicate weakening capital adequacy, which could expose insurers to solvency risks. While the Net Risk Ratio suggests a more cautious approach to risk retention, its volatility raises concerns about inconsistent underwriting strategies. Additionally, high operational costs and inconsistent risk management practices hinder the sector's sustainability. Although liquidity levels are sufficient to meet short-term obligations, solvency remains uneven, necessitating improved capital management. The Receivables Test points to potential cash flow issues, which could affect liquidity management, despite generally strong short-term liquidity levels. Trends in the Safety Ratio suggest improved reserve management, but further strengthening of risk assessment frameworks is needed. Given the sector's limited contribution to GDP, strengthening financial resilience is essential. To address these challenges, insurers must focus on stabilizing solvency ratios, enhancing premium collection efficiency, and maintaining balanced risk retention strategies, while optimizing costs and improving regulatory oversight to ensure long-term growth and stability.

Conclusion

In developing countries, insurance premium income constitutes about 3% of the Gross Domestic Product (GDP), while in developed Asian countries, it makes up over 10%. In Mongolia, the financial market is dominated by the banking sector, which accounts for 95% of the market, while the insurance sector plays a leading role in the non-bank financial sector. However, the share of insurance premiums in Mongolia's GDP is less than 1%. Although many factors affect the development of the insurance industry, good financial stability and solvency are the foundations for expressing the future financial position of a company. Especially for insurance companies, these are critical indicators.

This study was conducted based on the "Care rating" method, a globally used approach to evaluate the financial capacity of insurance companies, and the Kenney ratio, in accordance with regulations and guidelines approved by the Financial Regulatory Commission, using open sector data from 2019-2023. For insurance companies, the size, structure, and changes in their capital base are fundamental indicators that reflect financial stability. A high solvency ratio and good financial stability will not only earn the trust of insurers but will also positively influence the development of the insurance market.

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