

ANALYSIS OF THE RATIO OF INSURANCE PREMIUMS TO CLAIMS: BASED ON PRACTICAL EXAMPLES

Eldor Nozimov

Samarkand Institute of Economics and Service
Senior Lecturer, Department of "Investment and
Innovations"

ORCID: 0000-0003-1580-8654

eldornozimov@gmail.com



Abstract. *This study examines the ratio of insurance premiums to claims, a key indicator of financial performance and risk management efficiency in insurance companies. By analyzing practical examples from the insurance market, the research highlights the relationship between collected premiums and paid claims, identifying trends that impact profitability, solvency, and operational stability. The study also explores factors influencing the premiums-to-claims ratio, including risk assessment, underwriting practices, product diversification, and claim settlement efficiency. Findings suggest that maintaining an optimal balance between premiums and claims is essential for ensuring financial sustainability, enhancing competitiveness, and supporting long-term growth in the insurance sector.*

Keywords: *Insurance premiums; claims; premium-to-claims ratio; financial performance; risk management; underwriting; solvency; operational efficiency; insurance profitability; claim settlement.*

INTRODUCTION

The ratio of insurance premiums to claims is a critical indicator of financial performance and operational efficiency in the insurance sector. It reflects the ability of insurance companies to balance collected premiums against paid claims, ensuring profitability, solvency, and sustainable growth. An optimal premium-to-claims ratio indicates effective risk management, sound underwriting practices, and operational efficiency, while a disproportionate ratio may signal financial instability or inefficiencies in claim settlement processes.

Insurance companies employ various strategies to manage this ratio, including careful risk assessment, diversified product offerings, actuarial calculations, and timely claim management. The relationship between premiums and claims is influenced by market conditions, regulatory requirements, and the company's financial policies. Analyzing practical examples from real-world operations provides insights into trends, challenges, and best practices for maintaining a healthy balance between income and liabilities.

In the context of Uzbekistan, understanding the premiums-to-claims ratio is particularly important as the insurance market continues to develop and modernize. The study examines real examples from the local market, highlighting factors that affect the ratio and strategies implemented by companies to improve financial performance. This research aims to provide practical insights and recommendations to ensure the sustainable growth of insurance companies while maintaining policyholder trust and financial stability.

LITERATURE REVIEW

The ratio of insurance premiums to claims is a widely recognized metric for assessing the financial health and operational efficiency of insurance companies. According to Rejda and McNamara (2017), this ratio provides crucial insights into the balance between revenue generation through premiums and the outflow of funds for claims settlement, highlighting the effectiveness of risk management and underwriting practices. Vaughan and Vaughan (2018) further emphasize that a sustainable premiums-to-claims ratio is essential for maintaining solvency, profitability, and market credibility.

Empirical studies suggest that the ratio is influenced by multiple factors, including underwriting standards, product diversification, claim management efficiency, and market competition (Enz, 2000; Outreville, 2013). Companies that apply actuarial analysis and data-driven risk assessment tend to maintain a healthier balance, reducing the likelihood of financial losses and insolvency.

Research on emerging markets, including Uzbekistan, indicates that insurance companies are increasingly adopting best practices to optimize the premiums-to-claims ratio. Abdukarimov (2021) notes that strategic pricing, diversified insurance portfolios, and effective claim processing mechanisms contribute significantly to financial sustainability. Moreover, modern technologies such as automated claim management systems and predictive analytics enhance the ability of insurers to monitor trends, detect anomalies, and adjust pricing policies accordingly (KPMG, 2021; Deloitte, 2022).

Overall, the literature underscores that maintaining an optimal premiums-to-claims ratio is critical for the operational and financial success of insurance companies. It requires a combination of robust regulatory compliance, efficient internal management, data-driven decision-making, and technological integration to ensure sustainable growth and policyholder confidence.

METHODOLOGY

This study employs a mixed-methods approach to analyze the ratio of insurance premiums to claims in the insurance sector, using both quantitative data analysis and qualitative assessment based on practical examples. The methodological framework is designed to evaluate financial performance, risk management efficiency, and operational practices of insurance companies.

The quantitative component relies on statistical data obtained from the Insurance Market Development Agency of Uzbekistan (IMDA), the Ministry of Economy and Finance, and company-level financial reports. Key metrics include total premiums collected, total claims paid, claims ratios by insurance product types, and solvency indicators. Descriptive statistics and trend analyses are applied to identify patterns, evaluate the balance between premiums and claims, and assess the overall financial health of companies.

The qualitative component involves the analysis of practical examples and case studies from leading insurance companies in Uzbekistan. These examples

provide insights into how companies manage underwriting policies, claim settlement procedures, pricing strategies, and risk mitigation practices. Interviews with financial managers and insurance professionals supplement the case study analysis, offering perspectives on operational challenges and strategies for maintaining a favorable premiums-to-claims ratio.

Additionally, the study incorporates comparative analysis to benchmark local practices against international best practices in premiums-to-claims management. This approach allows for identifying gaps, potential improvements, and strategies to optimize financial performance.

By combining statistical evaluation, case studies, and expert insights, the methodology provides a comprehensive understanding of the factors influencing the premiums-to-claims ratio and the effectiveness of measures employed by insurance companies to maintain financial sustainability.

ANALYSIS AND RESULTS

The analysis of the premiums-to-claims ratio in Uzbekistan's insurance sector reveals significant insights into the financial performance and risk management efficiency of companies. Data from the Insurance Market Development Agency of Uzbekistan (IMDA) and selected company reports indicate that the ratio varies across insurance types, reflecting differences in underwriting practices, claim frequency, and risk exposure.

One key finding is that life insurance products generally exhibit a lower claims ratio compared to property and casualty insurance, due to predictable risk patterns and actuarially calculated premiums. Conversely, property insurance and health insurance tend to have higher claims ratios, influenced by natural hazards, medical cost inflation, and occasional catastrophic events. This highlights the importance of effective risk assessment, proper pricing strategies, and reinsurance arrangements to maintain financial stability.

Case studies of leading insurance companies in Uzbekistan demonstrate that companies employing data-driven underwriting and automated claim management systems maintain more balanced ratios. For example, insurers using predictive analytics to assess risk factors can adjust premium levels, reduce fraudulent claims, and optimize claim settlement procedures. This leads to a healthier balance between premiums collected and claims paid, enhancing overall profitability and solvency.

The analysis also identifies challenges affecting the premiums-to-claims ratio. Limited data availability, inadequate claim monitoring processes, and inconsistent risk assessment practices among smaller insurers can result in higher claims ratios and financial strain. Additionally, market fluctuations and unforeseen events, such as extreme weather conditions, can temporarily disrupt the balance between premiums and claims.

Overall, the findings suggest that maintaining an optimal premiums-to-claims ratio requires a combination of robust underwriting, strategic pricing, risk diversification, reinsurance, and technological integration. Insurance companies that implement these measures effectively demonstrate improved financial performance, enhanced policyholder confidence, and sustainable growth in the insurance market.

CONCLUSION AND RECOMMENDATIONS

The analysis of the premiums-to-claims ratio in Uzbekistan's insurance sector demonstrates that maintaining a balanced ratio is essential for financial stability, profitability, and operational efficiency. The study shows that life insurance products generally maintain a lower claims ratio due to predictable risk patterns, whereas property and health insurance experience higher claims ratios due to variable risk exposure and occasional catastrophic events. Effective risk assessment, proper pricing strategies, reinsurance arrangements, and technological integration are key factors in achieving an optimal balance between premiums collected and claims paid.

Practical examples indicate that insurance companies using data-driven underwriting, predictive analytics, and automated claim management systems achieve better control over the premiums-to-claims ratio. These measures reduce fraudulent claims, improve claim settlement efficiency, and allow companies to adjust premiums accurately based on risk profiles, resulting in enhanced profitability and solvency. Conversely, smaller insurers or those with limited access to advanced tools often face higher claims ratios, which may threaten financial sustainability.

To strengthen the balance between premiums and claims, several recommendations are proposed. Companies should invest in modern risk assessment technologies, implement automated and transparent claim management systems, and adopt strategic reinsurance policies to mitigate high-value risks. Regular monitoring of financial indicators, staff training on actuarial and risk management practices, and adherence to regulatory solvency standards are also crucial. Furthermore, insurers should diversify their product portfolios to spread risk across different insurance lines and market segments.

By adopting these strategies, insurance companies can maintain an optimal premiums-to-claims ratio, ensure long-term financial stability, enhance policyholder trust, and contribute to the sustainable development of the insurance sector in Uzbekistan.

REFERENCES

1. Abdugarimov, A. (2021). *Financial performance and risk management in Uzbekistan's insurance sector*. Tashkent: Economics Publishing.
2. Deloitte. (2022). *Global insurance outlook 2022: Premiums, claims, and financial efficiency*. New York: Deloitte Insights.
3. Enz, R. (2000). *The S-curve relation between per-capita income and insurance penetration*. The Geneva Papers on Risk and Insurance, 25(3), 396–406.
4. Nozimov, E. (2025). FINANCING OF INVESTMENT PROJECTS FROM THE FUNDS OF THE FUND FOR RECONSTRUCTION AND DEVELOPMENT

OF UZBEKISTAN. *International Journal of Artificial Intelligence*, 1(3), 1292-1296.

5. KPMG. (2021). *Insurance industry 4.0: Financial performance and risk analytics*. London: KPMG Reports.
6. Makhmudov, S. (2022). *Premiums-to-claims ratio and solvency in Uzbekistan's insurance companies*. *Journal of Financial Services*, 14(3), 45–58.
7. Nozimov, E., & Suyarova, S. (2025). IMPROVING AGRICULTURAL INSURANCE IN UZBEKISTAN: RISK MODELS AND NEW MECHANISMS. *Integration of Innovative Education and Training*, 1(4), 54-63.
8. Outreville, J. F. (2013). *The relationship between insurance and economic development: A theoretical and empirical analysis*. *Journal of Risk Finance*, 14(2), 110–145.
9. Rejda, G. E., & McNamara, M. (2017). *Principles of Risk Management and Insurance* (13th ed.). New York: Pearson.
10. Nozimov, E., & Nasriddinova, Y. (2025). IMPROVING THE RISK MANAGEMENT AND ACTUARIAL ASSESSMENT SYSTEM IN DEVELOPING THE PERSONAL INSURANCE MARKET. *Integration of Innovative Education and Training*, 1(4), 50-53.
11. Vaughan, E. J., & Vaughan, T. (2018). *Fundamentals of Risk and Insurance* (12th ed.). Hoboken, NJ: Wiley.
12. Nozimov, E., Sadinova, M., & Dusnazarova, B. (2025). MODERNIZATION OF INSURANCE SERVICES BASED ON DIGITAL TECHNOLOGIES AND ITS EFFICIENCY. *Integration of Innovative Education and Training*, 1(4), 45-49.
13. Insurance Market Development Agency of Uzbekistan (IMDA). (2024). *Annual report on insurance premiums and claims in Uzbekistan*. Tashkent: IMDA.
14. Ministry of Economy and Finance of the Republic of Uzbekistan. (2023). *Statistical bulletin on insurance claims and financial performance*. Tashkent.