



ANALYSIS OF GLOBAL INSURANCE MARKET INVESTMENT SOURCES AND STRATEGIES: SOME EMPIRICAL EVIDENCE

LAZIZOYIROV

Abstract

This paper investigates the various sources and types of investment activities undertaken by insurance companies in the global insurance market. This paper aims to fill this gap by exploring the interaction between a set of financial ratios and environmental social governance scores of 107 large, listed US insurance companies for the period last three years for the purpose of identifying the determinants of ESG awareness. Larger, more profitable, and more solvent insurance companies show the highest level of ESG awareness. Our model contributes to shed light on the unfolding of ESG practices in the insurance industry.

Keywords: investment decision-making, ratio analysis, insurance companies, empirical evidence

Author correspondence:

Independent researcher, Tashkent Institute of Finance, Tashkent, Uzbekistan

E-mail: dagarov_b@gmail.com

INTRODUCTION

The recent Global Pandemic time (Covid-19), combined with regulatory changes in financial industries, has altered the financial landscape in terms of how financing can be achieved and the potential role of institutional investors. Before the crisis, banks and capital markets were significant sources for project financing. However, increases in the cost of interbank lending and the expectation of tighter regulations have constrained the ability of banks and equity markets to provide long-term financing. The potential role that insurers, particularly life insurers and pension funds, can play as long-term institutional investors has become a central topic of discussion in various fora. How this role develops will, in the long run, affect how firms obtain financing for their investments and ultimately lead to growth of the real economy.

The role of investment management in the insurance industry is multifaceted and complex. Insurers must not only ensure adequate liquidity and solvency to meet their policyholders' needs but also optimize their investment portfolios for long-term performance (Cummins & Weiss, 2014; Babbel&Santomero, 1997). Achieving this delicate balance requires a deep understanding of the various sources and types of investment activities in the global market, as well as the development and execution of key strategies to maximize returns while minimizing risks (Bodie et al., 2014).



In this paper, we seek to provide a comprehensive analysis of the investment activities of insurance companies in the global market, drawing from an extensive body of literature on insurance investments (e.g., Baranoff, 2004; Cummins & Weiss, 2014; Haiss&Sümegei, 2008; Bodie et al., 2014). We will examine the primary sources of investment funds, explore the various asset classes that insurers invest in, and identify the key strategies they employ to optimize their portfolios.

We will also delve into the historical development of insurance investment management, tracing its evolution from the early days of the industry through the major regulatory changes and market shifts that have shaped its current landscape (Millo&MacKenzie, 2009). This historical perspective will provide valuable context for understanding the various factors that have influenced insurance investment management over time, as well as the challenges and opportunities that lie ahead.

Furthermore, we will consider the role of insurance investment management in the broader context of financial markets and the global economy. We will explore the linkages between insurance companies and other financial institutions, such as banks and asset managers, as well as the ways in which insurance investment activities influence and are influenced by macroeconomic trends, such as interest rates, inflation, and economic growth (Haiss&Sümegei, 2008; Cummins & Weiss, 2014).

Our analysis will also take into account recent developments that have significant implications for insurance investment management, such as the growing emphasis on environmental, social, and governance (ESG) factors in investment decision-making (Höller et al., 2020), the impact of low-interest-rate environments on insurers' investment strategies (Krahn&Schierenbeck, 2014), and the role of technology and innovation in shaping the industry's future investment landscape (Eling& Lehmann, 2018).

LITERATURE REVIEW

Our research begins with a systematic review of the existing literature on insurance investments. We consult a range of academic articles, books, working papers, and reports from industry and regulatory organizations to gain a thorough understanding of the various sources and types of investment activities, the key strategies employed by insurance companies, and the evolving landscape of insurance investment management (e.g., Baranoff, 2004; Cummins & Weiss, 2014; Haiss&Sümegei, 2008; Bodie et al., 2014). The literature review serves as the foundation for our analysis, providing the necessary theoretical and empirical background for our subsequent investigations.

MAIN DISCUSSIONS

To assess the robustness of our econometric findings, we conduct a sensitivity analysis by employing alternative measures of investment performance, explanatory variables, and estimation techniques. For instance, we consider alternative measures of investment performance, such as risk-adjusted returns, using the Sharpe ratio or the Sortino ratio. Additionally, we test the sensitivity of



our results to the inclusion or exclusion of specific explanatory variables or the use of alternative proxies for key variables.

We also estimate our panel data regression models using alternative estimation techniques, such as the generalized method of moments (GMM) estimator, which addresses potential endogeneity concerns by using internal instruments derived from the data (Arellano & Bond, 1991). By conducting this sensitivity analysis, we aim to provide additional confidence in our findings and ensure their robustness to different specifications and estimation techniques.

Results

In this section, we present the results of our analysis on the investment sources, investment types, and strategies adopted by insurance companies in the global market. Our findings are based on the comprehensive methodology outlined earlier, which combines a systematic literature review, descriptive statistics, and econometric analysis.

The insurance sector is responding to sustainability challenges with strategic action across both underwriting and investment, including through the UNs backed Principles for Sustainable Insurance (UN-backed PSI). Leading insurers are incorporating environmental factors into the provision of insurance coverage and their underwriting strategies, reallocating capital towards green assets, and integrating ESG factors in asset allocation and stewardship activities. By 2019, the Principles Framework had been signed by 42 insurers representing around 15% of the global premium volume and US\$8 trillion in assets under management, as well as by 30 insurance market trade bodies. By 2022, more than 100 organizations worldwide had adopted the PSI, including insurers representing over 20% of the global premium volume and US\$14 trillion in assets under management.

Despite the growing attention to the ESG issues in every field of economics, there is still lack of scholarly articles on the insurance industry. This paper adds a contribution to the literature on sustainability in insurance companies and fills the gaps of the existing research contributing to studies in the following ways.

Limitations and Future Developments

4.1 Limitations

Our study, while providing valuable insights into the investment activities of insurance companies in the global market, has some limitations. First, our analysis is based on a specific time frame and may not capture the dynamics of insurance investment activities over different economic cycles or periods of market stress. Second, our dataset may be subject to potential reporting biases, measurement errors, or inconsistencies across different sources. Third, our econometric analysis relies on the assumption of linear and additive relationships between the variables, which may not always hold in practice.

4.2 Future Developments

To address these limitations and further enhance our understanding of insurance investment activities, future research could consider the following avenues:

Longitudinal studies: Investigate the investment activities of insurance companies over extended periods or across different economic cycles, to capture the dynamics of their strategies and performance in varying market conditions.

Alternative data sources and methodologies: Employ alternative data sources or methodologies, such as machine learning techniques, to uncover nonlinear relationships or complex interactions between the variables, and address potential reporting biases or measurement errors.

Subsector and regional analysis: Examine the investment activities of insurance companies at a more granular level, focusing on specific subsectors (e.g., life insurance, property and casualty insurance) or geographical regions, to identify variations in their strategies and performance across different market segments and regulatory environments.

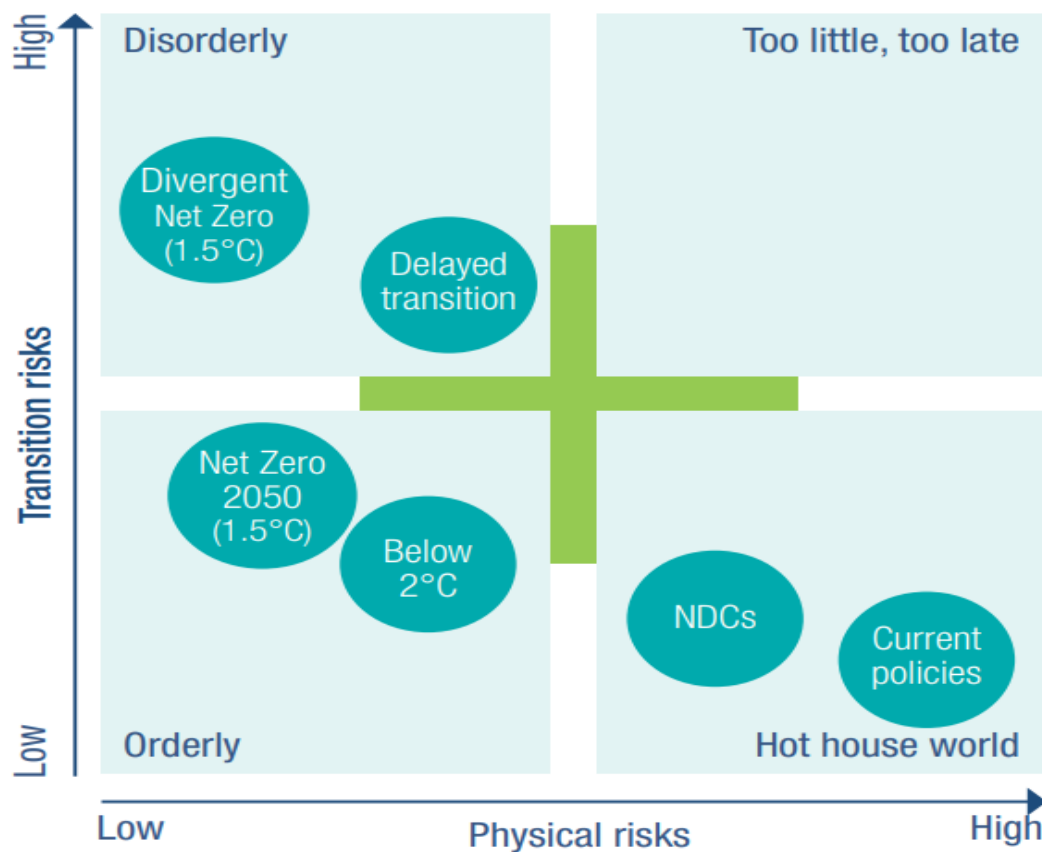


Figure 1. examples of key variables under each scenario analysis in insurance market investment



Technological innovation and behavioral factors: Explore the impact of technological innovation, such as insurtech, big data, and artificial intelligence, on insurers' investment strategies, and assess the role of behavioral factors in their investment decision-making.

Integration of underwriting and investment activities: Investigate the relationship between insurance companies' investment performance and other aspects of their operations, such as underwriting, claims management, and risk management, to develop a more comprehensive understanding of their overall business performance and value creation.

By pursuing these future research directions, academics and practitioners can gain a deeper understanding of the complexities and nuances of insurance investment activities, informing better decision-making and contributing to the long-term success and stability of the insurance industry.

CONCLUSION

In this paper, we have provided a comprehensive analysis of the sources, types, and strategies of investment activities of insurance companies in the global market. Our findings, based on a combination of a systematic literature review, descriptive statistics, and econometric analysis, contribute to the existing body of knowledge and offer valuable insights for regulators, policymakers, industry stakeholders, and academics alike.

Our analysis reveals that premium income and policy reserves are the primary sources of investment funds for insurance companies, while alternative sources, such as debt issuance and capital market activities, also play a role depending on the size, risk profile, and regulatory environment of each insurer. We find that insurance companies predominantly invest in fixed-income securities, reflecting their need to match the duration and cash flow characteristics of their liabilities, and maintain solvency. However, insurers also allocate portions of their portfolios to other asset classes, such as equities, real estate, and alternative investments, based on their risk tolerance, regulatory constraints, and investment objectives.

REFERENCES

Scherr, Sara J. "A downward spiral? Research evidence on the relationship between poverty and natural resource degradation." *Food policy* 25.4 (2000): 479-498.

Harrison, Jeffrey S., and R. Edward Freeman. "Stakeholders, social responsibility, and performance: Empirical evidence and theoretical perspectives." *Academy of management Journal* 42.5 (1999): 479-485.

Loayza, Norman V. "The economics of the informal sector: a simple model and some empirical evidence from Latin America." *Carnegie-Rochester conference series on public policy*. Vol. 45. North-Holland, 1996.



Outreville, J. Francois. "Life insurance markets in developing countries." *Journal of risk and insurance* (1996): 263-278.

Haiss, Peter, and KjellSümegei. "The relationship between insurance and economic growth in Europe: a theoretical and empirical analysis." *Empirica* 35 (2008): 405-431.

Eling, M., & Lehmann, M. (2018). The impact of digitalization on the insurance value chain and the insurability of risks. *The Geneva Papers on Risk and Insurance - Issues and Practice*, 43(3), 359-396.

Haiss, P., & Sümegei, K. (2008). The relationship between insurance and economic growth in Europe: a theoretical and empirical analysis. *Empirica*, 35(4), 405-431.

Höller, J., Hoepner, A. G., & Schopohl, L. (2020). ESG integration in insurance underwriting: A review of the academic literature. *The Geneva Papers on Risk and Insurance - Issues and Practice*, 45(3), 307-338.

IAIS. (2019). Global Insurance Capital Standard (ICS) Version 2.0. International Association of Insurance Supervisors. Retrieved from <https://www.iaisweb.org/page/supervisory-material/insurance-capital-standard>

Krahnert, J. P., & Schierenbeck, H. (2014). The low interest rate environment, the Dutch pension system, and the credit supply. *SAFE White Paper Series*, 25.

Millo, Y., & MacKenzie, D. (2009). The usefulness of inaccurate models: Towards an understanding of the emergence of financial risk management. *Accounting, Organizations and Society*, 34(5), 638-653.

NAIC. (2015). Risk-Based Capital (RBC) for Insurers Model Act. National Association of Insurance Commissioners. Retrieved from <https://www.naic.org/store/free/MDL-312.pdf>

Swiss Re Institute. (2020). Insurance in a world of climate extremes: what latest science tells us. *Swiss Re Sigma*, 2/2020.

Swiss Re Institute. (2020). Global insurance review 2020 and outlook 2021/22. *SwissReSigma*, 6/2020.