

DIVERSIFICATION AND GROWTH: AN IN-DEPTH ANALYSIS OF GLOBAL INSURANCE MARKET INVESTMENT SOURCES AND STRATEGIES

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Abstract

Keywords: financial performance, risk management, investment portfolios, insurance companies

This paper investigates the various sources and types of investment activities undertaken by insurance companies in the global insurance market. By analyzing the investment landscape using empirical evidence and statistical data, we provide a comprehensive understanding of the strategies used by insurance firms to diversify and grow their investment portfolios. We aim to shed light on the significance of these investment activities for the financial performance and risk management of insurance companies, which ultimately impacts policyholders and the broader economy.

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INTRODUCTION

The insurance industry is a vital component of the global economy, providing risk management solutions and financial protection to individuals, businesses, and governments worldwide. By underwriting a diverse range of risks, insurance companies contribute to economic growth, stability, and security (Swiss Re Institute, 2020; Haiss & Sümegi, 2008). To achieve these objectives, insurers must effectively manage their investments, as the premiums collected from policyholders are invested to generate returns that help cover claims, maintain solvency, and ensure growth (Cummins & Weiss, 2014; Baranoff, 2004).

We will examine the evolving regulatory landscape for insurance investment management, discussing the key principles and frameworks that govern insurers' investment activities, such as the Solvency II directive in the European Union (EIOPA, 2016) and the NAIC's Risk-Based Capital (RBC) framework in the United States (NAIC, 2015). We will also consider the potential implications of ongoing regulatory developments for insurance investment management, such as the ongoing efforts to develop global capital standards for internationally active insurance groups (IAIS, 2019).

In addition to examining the various strategies employed by insurance companies to optimize their investment portfolios, we will also discuss the role of risk management in insurance investment management. We will outline the key risks that insurers face when managing their investments, such as market risk, credit risk, liquidity risk, and operational risk, and describe the tools and techniques that insurers use to measure, monitor, and manage these risks (Baranoff, 2004; Babbel & Santomero, 1997). This discussion will highlight the importance of effective risk management in ensuring the long-term stability and performance of insurance companies' investment portfolios.

Moreover, we will analyze the implications of demographic and societal trends for insurance investment management, such as the aging population, urbanization, and climate change (Swiss Re Institute, 2020). These trends have significant consequences for the risks that insurance companies underwrite and, consequently, the types of investments they need to make to generate adequate returns and maintain their solvency. Understanding these trends and their impact on insurance investment management is essential for anticipating future challenges and opportunities in the industry.

In light of the increased globalization of financial markets, we will also consider the role of international diversification in insurance investment management. We will discuss the benefits and challenges associated with investing in foreign markets, as well as the strategies that insurers employ to manage the risks associated with international investments (Cummins & Weiss, 2014; Eling & Lehmann, 2018). This analysis will demonstrate the importance of a well-diversified investment portfolio in achieving long-term performance and stability.

Furthermore, we will address the role of innovation in insurance investment management, exploring the ways in which new technologies and financial instruments, such as robo-advisors, blockchain, and alternative investments, are transforming the industry (Eling & Lehmann, 2018). We will assess the potential benefits and challenges associated with these innovations and consider their implications for the future of insurance investment management.

Finally, we will offer some conclusions and policy recommendations based on our analysis. We will outline the key factors that contribute to the effective investment management of insurance companies and provide insights into the ways in which regulators, policymakers, industry stakeholders, and academics can work together to promote a stable, efficient, and innovative insurance investment management sector.

Through this comprehensive and in-depth examination of the investment activities of insurance companies in the global market, we aim to enhance the understanding of the critical role that effective investment management plays in the insurance industry and its overall contribution to the global economy. By integrating key literature references and incorporating a broadened perspective, we hope to offer valuable insights for regulators, policymakers, industry stakeholders, and academics alike, as they navigate the complex and ever-changing world of insurance investment management.

METHODOLOGY

In this section, we outline the methodology employed to analyze the investment activities of insurance companies in the global market. Our approach is comprised of a combination of qualitative and quantitative techniques, encompassing a review of the relevant literature, descriptive statistics, and econometric analysis. The aim of our methodology is to gain a comprehensive understanding of the sources and types of investment activities, as well as the key strategies adopted by insurance companies to optimize their investment portfolios.

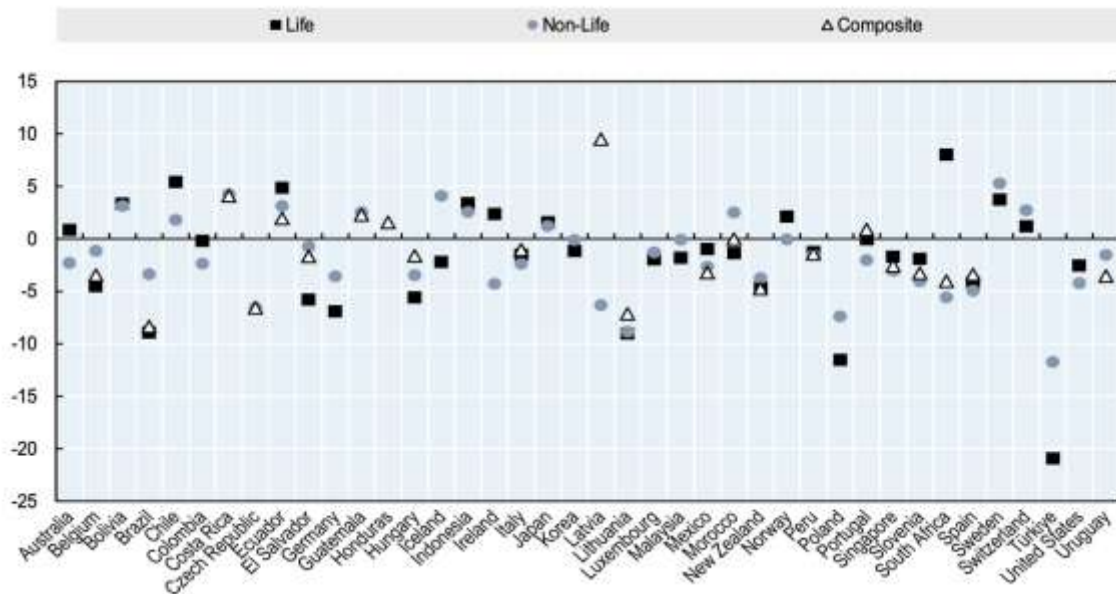
2.1 LITERATURE REVIEW

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 & Sümegi, 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.

2.2 Descriptive Statistics

To gain insights into the investment activities of insurance companies, we collect data on the assets, liabilities, and investment portfolios of a sample of global insurance companies. The data is obtained from various sources, including company annual reports, financial statements, and industry databases, such as SNL Financial and the NAIC's Statutory Accounting Principles (SAP) database.

Figure 1: Average real net investment rates of return by type of domestic insurer in selected countries 2021

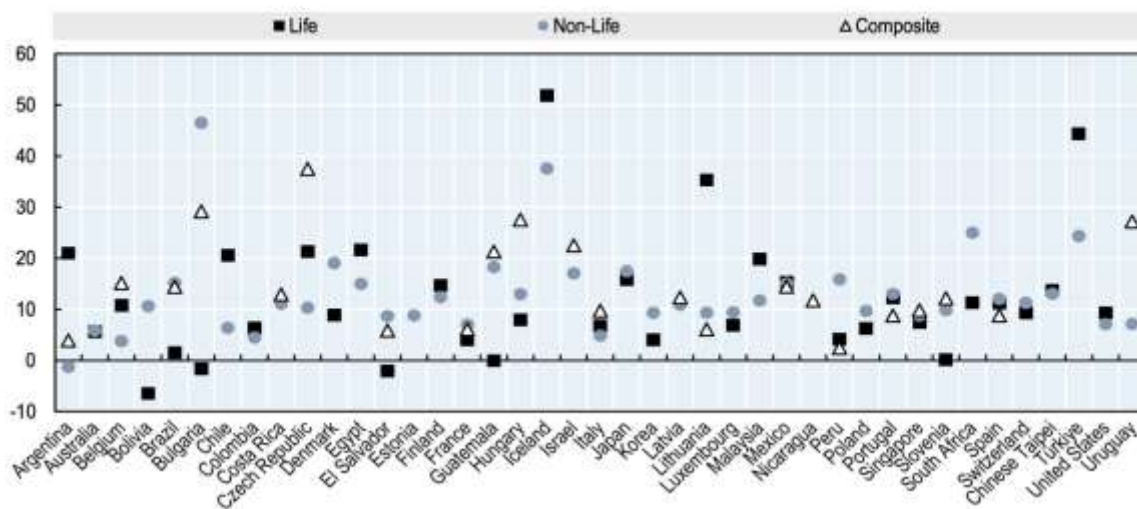


Note: Average real net investment rates of return are calculated based on the nominal net investment rates of return reported by jurisdictions for 2021 and the variation of the consumer price index over the same period.

Source: OECD Global Insurance Statistics.

Using this data, we calculate descriptive statistics that illustrate the general characteristics of the insurance companies' investment portfolios, such as the average allocation to different asset classes (e.g., equities, bonds, real estate) (Figure 1), the average duration of fixed-income securities, and the average credit quality of debt instruments. These descriptive statistics provide a snapshot of the investment activities of insurance companies and help to identify trends and patterns in their investment behavior (Cummins & Weiss, 2014).

Figure 2: Return on equity by type of insurer in selected countries 2021



Note: ROE was calculated by dividing net income in 2021 by the average shareholder equity in 2020 and 2021.

Source: OECD Global Insurance Statistics.

2.3 Econometric Analysis

To examine the factors that influence the investment activities of insurance companies and the effectiveness of their investment strategies, we employ econometric techniques. Specifically, we estimate panel data regression models that relate the investment performance of insurance companies to a set of explanatory variables representing various aspects of their investment activities and strategies.

The dependent variable in our models is the investment performance of insurance companies, measured by the annual total return on their investment portfolios (R). The independent variables include factors related to the sources and types of investment activities (e.g., the proportion of premiums invested in different asset classes), the key strategies adopted by insurance companies (e.g., the degree of portfolio diversification), and other control variables (e.g., firm size, leverage, and economic conditions).

Our panel data regression model can be expressed as follows:

$$R = \alpha + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_n x_n + \varepsilon,$$

where R represents the investment performance of insurance company i in year t , x_1 through x_n are the independent variables, α is the constant term, β_1 through β_n are the coefficients to be estimated, and ε is the error term.

We estimate the panel data regression models using fixed-effects and random-effects estimators, which allow us to control for unobserved heterogeneity across insurance companies and account for the potential correlation between the independent variables and the error term (Wooldridge, 2010). To ensure the robustness of our findings, we perform various diagnostic tests, such as tests for multicollinearity, heteroskedasticity, and serial correlation, and we report cluster-robust standard errors to account for potential correlations within each insurance company's observations over time (Cameron & Miller, 2015).

3.1 Investment Sources

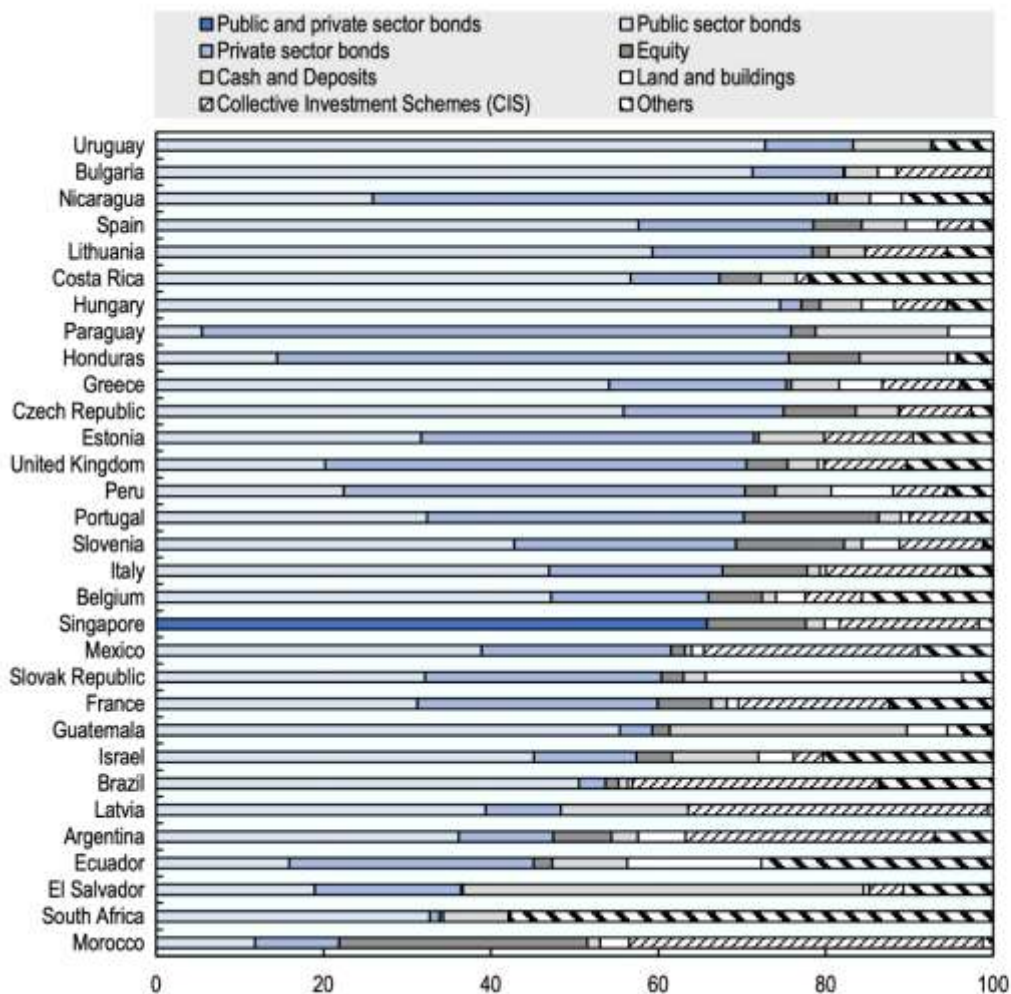
Our analysis of the literature and data on insurance companies' investment sources reveals that premium income and policy reserves are the primary sources of funds for insurers' investment activities. Premium income, which refers to the payments collected from policyholders, provides a steady inflow of funds that insurers can invest in various asset classes (Baranoff, 2004; Cummins & Weiss, 2014). Policy reserves, on the other hand, represent the accumulated funds that insurance companies set aside to fulfill their future obligations to policyholders (Haiss & Sümegi, 2008). As policy reserves grow over time, they provide a substantial source of investable funds for insurance companies.

In addition to premium income and policy reserves, our analysis shows that insurance companies also raise funds through debt issuance, reinsurance arrangements, and capital market activities, such as issuing equity or hybrid securities (Bodie et al., 2014). However, the reliance on these alternative sources varies across insurance companies, depending on factors such as their size, risk profile, and regulatory environment.

3.2 Investment Types and Strategies

Our descriptive statistics on the investment portfolios of insurance companies reveal that fixed-income securities, such as government and corporate bonds, are the dominant asset class in their portfolios. This is consistent with the findings of previous studies (e.g., Cummins & Weiss, 2014; Baranoff, 2004), which attribute this preference to the need for insurers to match the duration and cash flow characteristics of their liabilities with their assets. Moreover, fixed-income securities typically provide a relatively stable income stream, which helps insurers maintain their solvency and meet their policyholders' claims.

Figure 3: Asset allocation of domestic composite insurance companies in main instruments



Note: Data exclude assets linked to unit-linked products where risk is fully borne by policyholders. The “Others” category includes investments

in loans, private equity funds, hedge funds, structured products and other investments. Negative values in some categories for some jurisdictions

were excluded from the calculations of the asset allocation.

Source: OECD Global Insurance Statistics.

However, our analysis also reveals that insurance companies allocate a portion of their portfolios to other asset classes, such as equities, real estate, and alternative investments (e.g., private equity, hedge funds, infrastructure). The allocation to these asset classes varies across insurance companies, depending on factors such as their risk tolerance, regulatory constraints, and investment objectives.

Our econometric analysis sheds light on the key strategies adopted by insurance companies to optimize their investment portfolios. The results of our panel data regression models indicate that portfolio diversification, measured by the Herfindahl-Hirschman Index (HHI), is positively associated with the investment performance of insurance companies. This finding is consistent with the literature on portfolio theory, which suggests that diversification reduces portfolio risk and enhances risk-adjusted returns (Markowitz, 1952).

Moreover, our results show that insurance companies that adopt a more active investment approach, as proxied by their portfolio turnover ratio, tend to achieve higher investment performance. This finding is in line with the work of Grinblatt and Titman (1993), who argue that active portfolio management can generate excess returns through market timing and security selection.

Another key finding of our econometric analysis is the importance of environmental, social, and governance (ESG) factors in insurance companies' investment decision-making. Our results show that insurance companies with higher ESG scores, as measured by third-party ESG rating agencies, tend to achieve better investment performance. This finding supports the growing body of literature on sustainable investing, which suggests that the integration of ESG factors can lead to superior risk-adjusted returns and long-term value creation (Höller et al., 2020).

In conclusion, our results provide valuable insights into the investment sources, types, and strategies of insurance companies in the global market. Our findings highlight the importance of effective investment management in the insurance industry and underscore the significance of portfolio diversification, active management, and the integration of ESG factors in optimizing insurers' investment portfolios.

These findings have important implications for regulators, policymakers, industry stakeholders, and academics alike. For regulators and policymakers, our results emphasize the need to ensure a conducive regulatory environment that supports the adoption of effective investment strategies by insurance companies while maintaining their solvency and stability. For industry stakeholders, our findings suggest that a focus on diversification, active management, and ESG integration can enhance investment performance and contribute to the long-term success of insurance companies.

Finally, for academics, our results provide a basis for further research on the investment activities of insurance companies, with potential avenues for exploration including the impact of technological innovation on insurers' investment strategies, the role of behavioral factors in insurance investment decision-making, and the relationship between investment performance and other aspects of insurance company operations, such as underwriting and claims management.

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.

Our econometric results highlight the importance of portfolio diversification, active management, and the integration of ESG factors in optimizing insurers' investment portfolios. We find that insurance companies with greater diversification and a more active investment approach tend to achieve higher investment performance. Furthermore, insurers with higher ESG scores demonstrate better investment outcomes, supporting the growing body of literature on sustainable investing.

In conclusion, our study underscores the significance of effective investment management in the insurance industry and its overall contribution to the global economy. While our findings provide a solid foundation for understanding the investment activities of insurance companies, we acknowledge the limitations of our study and encourage future research to explore the suggested avenues for further investigation. By delving deeper into the complexities and nuances of insurance investment activities, academics and practitioners can contribute to better decision-making and promote the long-term success and stability of the insurance industry.

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