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## From Arrears to Earnings: Examining the Impact of Credit Risk on Kenyan Insurers

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### Abstract

The insurance industry is one of the non-bank financial industry with important roles in the economic sector of a country and contributes critically and uniquely both in developing and developed countries. However, in Kenya, poor profitability was a primary factor in the deterioration and eventual closing down of at least 9 insurance companies over the past decade. This investigation aimed to ascertain the effect of credit risk on profitability of Insurance firms in Kenya. The theoretical framework incorporated modern portfolio theory, extreme value theory and institutional theory. The study employed positivist philosophical approach and explanatory research methodology. The research encompassed a comprehensive examination of all 55 insurance entities registered with the Insurance Regulatory Authority in Kenya through 31st December 2022. Audited financial reports accessible through the Insurance Regulatory Authority and Association of Kenya Insurers digital platforms provided secondary data spanning 2014 through 2022. The Central Bank of Kenya and Kenya National Bureau of Standards supplied supplementary information. Analytical procedures encompassed descriptive statistics, panel regression methodology and Pearson's Product-Moment Correlation technique. Credit risk was found to have a negative and statistically significant effect on ROE, and a negative but insignificant effect on ROA. This suggests that an increase in unpaid or delayed premiums erodes firm profitability, especially from a shareholder value perspective. As a result, the study recommends that Insurance firms in Kenya should enhance their credit risk evaluation processes and underwriting standards, particularly for policyholders, corporate clients, and investment portfolios, to minimize defaults and claim-related financial losses.

**Key words:** *Credit risk, Profitability, Return on Equity, Return on Assets, Kenya*

### 1. Introduction

According to Tasdemir and Alsu (2024) by providing a range of services and products that help mitigate risks, protect individual and commercial assets, and facilitate financial stability, the insurance sector contributes to economic growth through various channels. Cristea, Marcu and Cârstina (2014) established the link between the insurance industry, proxied by insurance penetration, and economic growth, proxied by GDP per capita, to be causal. The Chartered Insurance Institute (2018) documents that safeguarding and protecting a party insured from the adverse effects of financial loss, as a result of injury or death (life assurance) or other loss or damage (general insurance), forms the basis of principle of insurance and risk management. The literature further indicates that this risk of loss or damage can be reduced by a firm or individual insuring with another party against the occurrence of a number of adverse situations, through the use of some form of 'policy'.

The Association of Kenya Insurers (2021) documents that out of the growth depicted in the global insurance market, 80% emanated from emerging markets. Additionally, in Africa, the insurance sector remains one of the least penetrated globally, yet it presents great opportunities for growth. In Kenya, a key objective and outcome of the Regulator is the promotion and development of the insurance industry, including improving insurer's financial soundness. Further, the IRA Strategic Plan covering the period 2018 – 2022 has been aligned to Kenya Vision 2030, The Big Four Agenda, Third Medium Plan (MTP III) 2018 – 2022, Sector Plan for Financial Services 2018 – 2022, Sustainable Development Goals and International and Regional Standards for insurance supervision (Insurance Regulatory Authority, 2018).

#### 1.1 Credit Risk

The Insurance Regulatory Authority (2017) defines Credit Risk as a firm's exposure to loss brought about by counterparty's failure to meet its contractual obligations or failing to service them on time. According to Moliterni (2024) and Brand (2018), Credit risk encompasses the threat of loss by virtue of a counterparty or issuer's failure to meet its obligations. Kiptoo, Kariuki and Ocharo (2021) contend that counterparties that are unable to meet their contractual obligations within a given frame face exposure to credit risk as a result of receivables turning non-performing. In this regard, insurance firms would in turn be exposed to financial distress in the absence of effective collection measures of the same.

Akotey and Abor (2013) further reiterate that as pertains to Credit risk, Insurers face two primary concerns. Firstly, the likelihood of reinsurers defaulting emanating from large cluster claims as a result of a natural catastrophic event. Secondly, adverse macro-economic conditions and insolvencies faced by insurers' funds borrowers may lead to the possibility of default. Apanga, Apiah and Arthur (2016) contend that despite the increasing importance of credit risk issues in policy debate relatively little research exists on the subject especially in developing countries. Simply put, research on credit risk management is still at its infancy in developing economies. Specifically, evidence on issues pertaining to credit risk management in sub-Sahara Africa remains scant.

According to Sisay (2017), the Credit risk of an insurance firm is quantified by the ratio of the amounts owed to the firm by premium debtors plus amounts due from reinsurer/s plus other receivables in proportion to the net assets (premium debtors + amounts due from reinsurer/s + other receivables / net assets). However, this study adopted the measure of outstanding premiums in proportion to gross premiums. A company ought not to have more than 10% of outstanding premiums. This is the measure of Credit risk proposed by the Insurance Regulatory Authority (2017). In this regard, we observed a compound annual growth rate (CAGR) in Credit risk of 4.18% and an overall growth rate over the study period of 38.76%.

**1.2 Profitability**

Hiogiu and Nnamocha (2018) and Malik (2011) propose that Profitability refers to the strength of a business to remain with surplus revenue after payment of all the expenses related to production and acts as an index and measure of a firm's efficiency. According to Dorofiti and Jakubik (2015) and Nguyen and Nguyen (2020), Profitability remains a key objective of a company's performance and financial management initiatives, depicting profit in relation to equity, asset investment, or sales. One of the key functions of a firm is boosting profitability as it forms sound basis through which business performance may be evaluated, future prospects may be analyzed and it serves as a reflection of shareholders' wealth.

**1.3 Insurance Firms in Kenya**

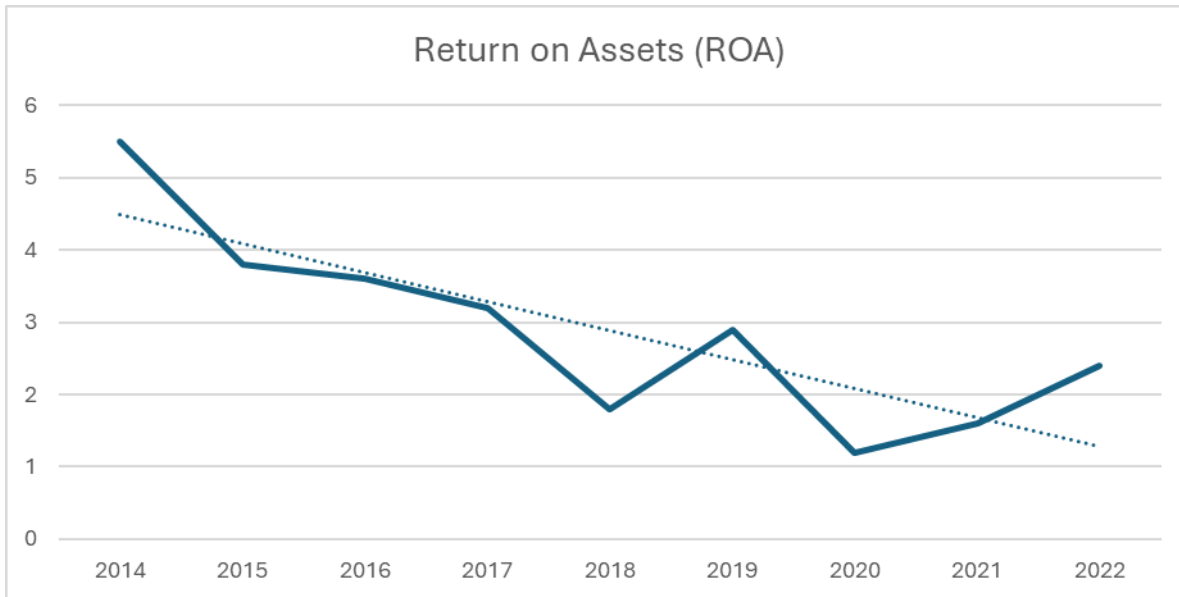
At the close of 2022, there were 55 Insurance firms registered by the IRA (Insurance Regulatory Authority, 2023). The Association of Kenya Insurers (2018) contends that over the years, the Kenya insurance industry has demonstrated great resilience.

**Table 1: Key Profitability Ratios for Insurers (%)**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2014-2022 Growth/Decline
<b>Return on Assets (ROA)</b>	5.5	3.8	3.6	3.2	1.8	2.9	1.2	1.6	2.4	-56.38%
<b>Return on Equity (ROE)</b>	16	11.4	9.9	9.7	4.9	9.7	3.4	6.2	8.4	-47.50%
<b>Return on Capital Employed (ROCE)</b>	18.0	11.4	14.2	10.4	4.0	15.0	4.7	9.8	13.3	-26.11%

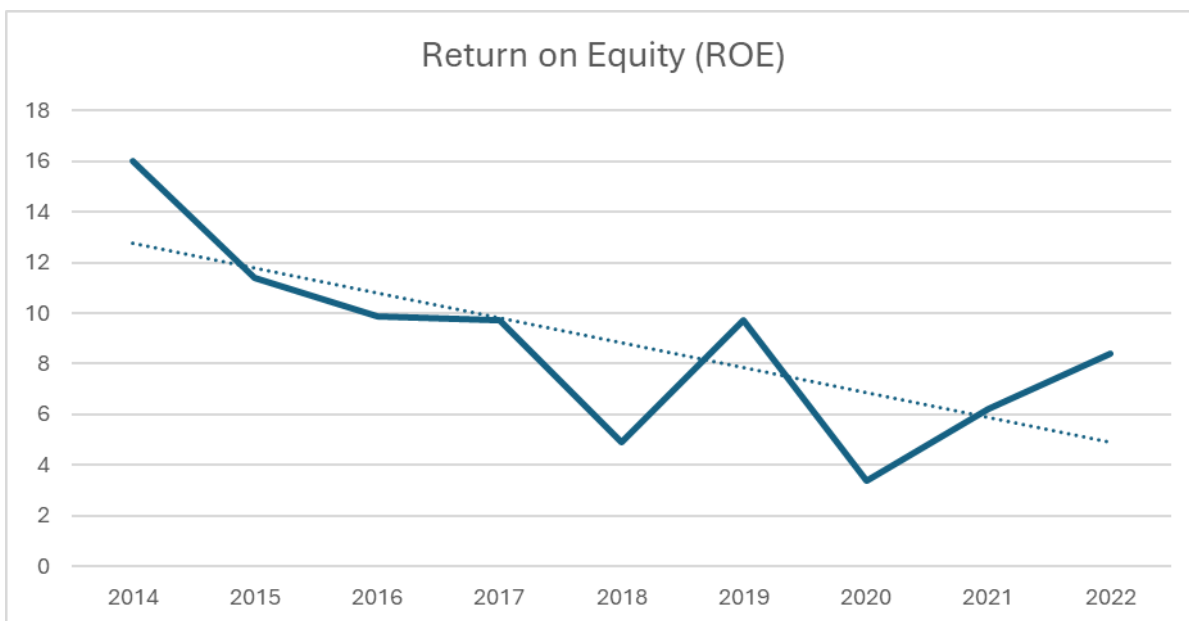
Source: IRA (2023)

Table 1 show that the Insurance industry profitability measures of Return on Assets (ROA) and Return on Equity (ROE) have been on the decline over the period 2014 – 2022. Over the period, ROA declined steadily from 5.5%, in 2014, to 2.4%, in 2022, despite a slight recovery in 2019 before resuming the decline in 2020 and thereafter a slight recovery in 2021 and 2022. ROE depicts a similar decline, from 16%, in 2014, to 5.2%, in 2020 and a slight recovery in 2021 and 2022, with the steepest decline occurring between 2017 and 2018 as a result of a steeper decline in Operating profit.



**Figure 1: Insurance Industry Trend of Return on Assets (ROA)**  
Source: IRA (2023)

Figure 1 captures the decline in Return on Assets (ROA) of Kenya insurance industry (2014 – 2022).



**Figure 2: Insurance Industry Trend of Return on Equity (ROE)**  
Source: IRA (2023)

Figure 2 captures the decline in Return on Equity (ROE) of Kenya insurance industry (2014 – 2022).

## 2. Statement of the Problem

The insurance sector in Kenya constitutes a critical component of the national financial system, both through its contribution to gross domestic product and its role in supporting the stability and efficiency of the wider financial services architecture. An analysis of industry performance over the period 2014–2022 indicates a notable deterioration in key profitability metrics. Specifically, Return on Equity (ROE) declined at a compound annual growth rate (CAGR) of  $-7.74\%$ , corresponding to an aggregate reduction of  $47.5\%$ , while Return on Assets (ROA) exhibited a CAGR decline of  $-9.85\%$ , resulting in an overall contraction of  $56.36\%$  during the same period. As articulated by Nguyen and Nguyen (2020), profitability remains a fundamental indicator of organisational performance and a key determinant of future strategic and operational prospects. Accordingly, the persistent decline in profitability represents a substantive risk to the long-term viability of the Kenyan insurance industry, despite its essential function within the financial sector and its wider contribution to economic development.

Empirical literature on the relationship between Credit risk and profitability reveals multiple methodological, contextual, and conceptual limitations that this study sought to address. Ekinici and Poyraz (2019), Gizaw, Kabede and Selvaraj (2015), Ogilo (2012), and Boahene, Dasah and Agyei (2012) used different estimation techniques, including basic correlation and descriptive methods exposing a methodological gap. Contextual gaps also remain prevalent, as most reviewed studies were conducted outside the Kenyan insurance sector. For instance, Ishmail (2024), Yusuf and Nafiu (2024), Al-Yatama *et al.*, (2020), Onsongo, Muathe and Mwangi (2020), Ekinici and Poyraz (2019), Sisay (2017), Petria, Caprarub and Ihnatov (2016), Saeed and Zahid (2016), Ebenezer and Omar (2013), and Boahene, Dasah and Agyei (2012) explored credit risk in settings such as commercial banking or international capital markets. While these studies contributed valuable insights into the role of non-performing loans, loan loss provisions, or credit ratios, their conclusions cannot be directly extrapolated to insurance firms.

A conceptual gap is also evident in the heterogeneity of variables used to define both credit risk and profitability. Prior researchers—including Ishmail (2024), Yusuf and Nafiu (2024), Mutua, Wamugo and Theuri (2023), Kiptoo, Kariuki and Ocharo (2021), Onsongo, Muathe and Mwangi (2020), Ekinici and Poyraz (2019), and Sisay (2017)—applied credit risk indicators such as loan-to-asset ratio, non-performing loan ratio, or credit default rate, which are more applicable to banking institutions than to insurance firms. Similarly, profitability indicators ranged from earnings per share and net margin to return on investment, many of which fail to reflect the capital structure and revenue model of insurers.

Additionally, empirical findings remain inconsistent. Some studies, such as those by Al-Yatama *et al.*, (2020), Eken and Kale (2013), Ogilo (2012), and Boahene, Dasah and Agyei (2012), documented a positive and significant association between credit risk and profitability. Conversely, a substantial number of studies including those by Ishmail (2024), Mutua, Wamugo and Theuri (2023), Kiptoo, Kariuki and Ocharo (2021), Fali, Nyor & Mustapha (2020), Tassew and Hailu (2019), Ekinici and Poyraz (2019), Maniagi (2018), Sisay (2017), Muriithi (2016), Gizaw, Kabede and Selvaraj (2015) and Ebenezer and Omar (2013), have reported a negative and statistically significant relationship. Hence, the inconsistencies observed across previous studies suggest the presence of unresolved empirical gaps shaped by geographical differences, methodological choices, and institutional environments. These limitations underscore the need for the present investigation, which situates its analysis within the Kenyan insurance industry and employs more contextually appropriate indicators and analytical approaches.

### 3. Objective of the Study

The main objective of the study was to determine the effects of credit risk on profitability of insurance firms in Kenya.

### 4. Literature Review

#### 4.1 Theoretical Review

##### 4.1.1 Modern Portfolio Theory

Modern Portfolio Theory (MPT), introduced by Harry Markowitz in 1952, presents an analytical model for evaluating how investment risk and return can be jointly optimized. The theory postulates that rational investors do not evaluate individual securities in isolation but consider the behavior of the entire portfolio. According to Markowitz (1952), an investor can construct an efficient portfolio by diversifying across assets that do not perfectly correlate, thereby reducing the overall portfolio risk without necessarily compromising return. This principle of diversification forms the central proposition of MPT and has significantly influenced financial decision-making in institutional environments.

In the context of insurance firms, MPT has practical implications for managing financial assets within an environment of uncertainty. Insurance companies must invest policyholder funds while ensuring that they maintain sufficient reserves to meet claims obligations. Applying the principles of MPT allows insurers to structure investment portfolios that mitigate exposure to Credit risk; The MPT offers a rigorous and systematic approach for managing Credit risk through diversification and quantitative analysis. The theory provides clear guidance on how to allocate resources across asset classes to achieve a desired balance between expected return and acceptable risk.

##### 4.1.2 Extreme Value Theory

Extreme Value Theory (EVT) was first formalized through the pioneering contributions of Fisher and Tippett (1928), Gnedenko (1943), and later refined by Gumbel (1958) and Pickands (1975). The theory was developed to address limitations in conventional statistical models when analyzing rare, extreme, or catastrophic events that lie in the tails of probability distributions. The EVT provides a scientifically grounded and practically relevant framework for modeling Credit risk arising from rare but significant events. Unlike traditional models that focus on average outcomes, EVT prioritizes the statistical characterization of extremes, which often determines the financial survival of insurance institutions.

The theory is particularly applicable to insurance firms operating in emerging markets such as Kenya, where volatility in economic and environmental conditions frequently leads to non-normal return distributions. Accordingly, EVT offers critical guidance for understanding and mitigating financial vulnerabilities within Kenya’s insurance sector.

**4.2 Empirical Literature**

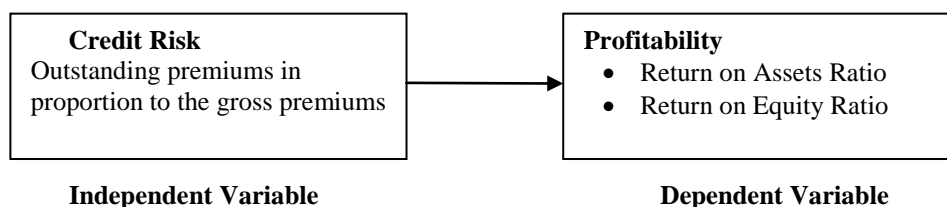
**4.2.1 Credit Risk and Profitability**

From the Kenyan perspective, Mutua, Wamugo and Theuri (2023) and Onsongo, Muathe and Mwangi (2020) explored credit risk in insurance and listed companies respectively. Their studies revealed that credit risk negatively affected profitability, underlining how poor credit controls and underwriting standards can erode returns. Nonetheless, these studies employed differing operational definitions and risk indicators, which may have limited comparability and depth of causal analysis. For example, the proxies used for credit risk and performance were not uniform, and the sectors examined varied. Additionally, their designs were largely descriptive and focused on broader financial risks rather than isolating credit risk effects specifically within the insurance industry. To fill this methodological gap, the current study refines the measurement of credit risk by focusing on outstanding premiums to gross premiums and aligns it with ROA as the profitability indicator, employing explanatory design for causal inference. The inclusion of firm size also introduces a layered analysis that accounts for institutional capacity in managing credit-related exposures.

Beyond Kenya, other regional studies such as those by Fali, Nyor & Mustapha (2020) and Sisay (2017) further emphasized the negative influence of credit risk on profitability, with both studies conducted in Nigeria and Ethiopia respectively. While they enrich the debate, they again differ in their choice of risk proxies and are embedded in different financial and regulatory ecosystems. For instance, Sisay’s study focused on Ethiopian insurers and showed that rising credit defaults were detrimental to asset performance. Yet, Ethiopia’s insurance penetration and market development are significantly different from Kenya’s. Moreover, Ogilo (2012), although a Kenyan study, centered on commercial banks and utilized CAMEL indicators, thereby offering insights that may not fully transfer to the insurance industry. These conceptual and methodological discrepancies underline the importance of the present study’s unique contribution: contextualizing credit risk within Kenya’s insurance framework using tailored indicators and accounting for firm-level characteristics that may moderate risk exposure and performance dynamics.

**4.3 Conceptual Framework**

The conceptual below framework depicts the relationships between the study variables credit risk and profitability.



**Figure 3: Conceptual Framework**

**5. Research Methodology**

The study was grounded in a positivist research paradigm, reflecting the view that the phenomena under investigation exist independently of the researcher and can be examined objectively. This philosophical orientation was appropriate given the study’s nature, its analytical requirements, and its focus on deriving empirically verifiable relationships over the specified period. As noted by Cazeaux (2017) and Zukauskas, Vveinhardt, and Andriukaitiene (2018), positivism assumes that observable events and their surrounding conditions are external to the researcher and amenable to objective measurement. In line with this paradigm, the study employed an explanatory research design. According to Saunders *et al.*, (2009), explanatory research seeks to uncover causal linkages between variables, enabling the researcher to analyze a phenomenon in order to clarify how one set of variables influences another.

This study adopted a panel regression model, going by the fact that both cross-sectional and time series dimensions are captured in the data (Greene, 2008). Consequently, the effect of credit risk on profitability was investigated using panel data analysis. The study adopted the following models:

$ROA_{it} = \alpha + \beta_1 CR_{it} + \epsilon_{it} \dots \dots \dots$  **Model 1**

$ROE_{it} = \alpha + \beta_1 CR_{it} + \epsilon_{it} \dots \dots \dots$  **Model 2**

Where:

$ROA_{it}$  = Return on Assets of Insurance firm  $i$  at time  $t$ .  
 $ROE_{it}$  = Return on Equity of Insurance firm  $i$  at time  $t$ .  
 $\alpha$  = The intercept  
 $\beta_1$  = Regression coefficient  
 $CR_{it}$  = Credit Risk for Insurance firm  $i$  at time  $t$ .  
 $\varepsilon_{it}$  = the error term

All the Insurance firms in Kenya registered by the Insurance Regulatory Authority formed the target population of this study. The Insurance Regulatory Authority (2023) indicates that at the end of 2022, there were 55 registered Insurance firms, which formed the target population. Additionally, all Insurance firms in Kenya are incorporated in the profitability statistics, ROA and ROE, depicted by industry averages. In view of this, all the insurance companies registered as of 31st December 2022 formed the Unit of analysis for the study. the study adopted a census approach.

## 6. Research Findings and Discussion

### 6.1 Descriptive Statistics

Descriptive statistics help in exhibiting the basic features of the data used in the study (Saunders, *et al.*, 2009). To attain annual results that are representative of the entire study population, yearly average values of the study variables are used. Subsequently, the descriptive analysis presents statistical data for the period of 2014–2022. Trend analysis results of the variables are provided herein.

**Table 1: Descriptive Statistics**

Variable	Obs.	Mean	Std. Dev.	Min	Max
Return on equity	495	0.0184	0.5976	-6.4189	7.4342
Return on assets	495	0.0185	0.0807	-0.7993	0.3628
Credit risk	495	0.2572	0.4060	0.0003	5.7099

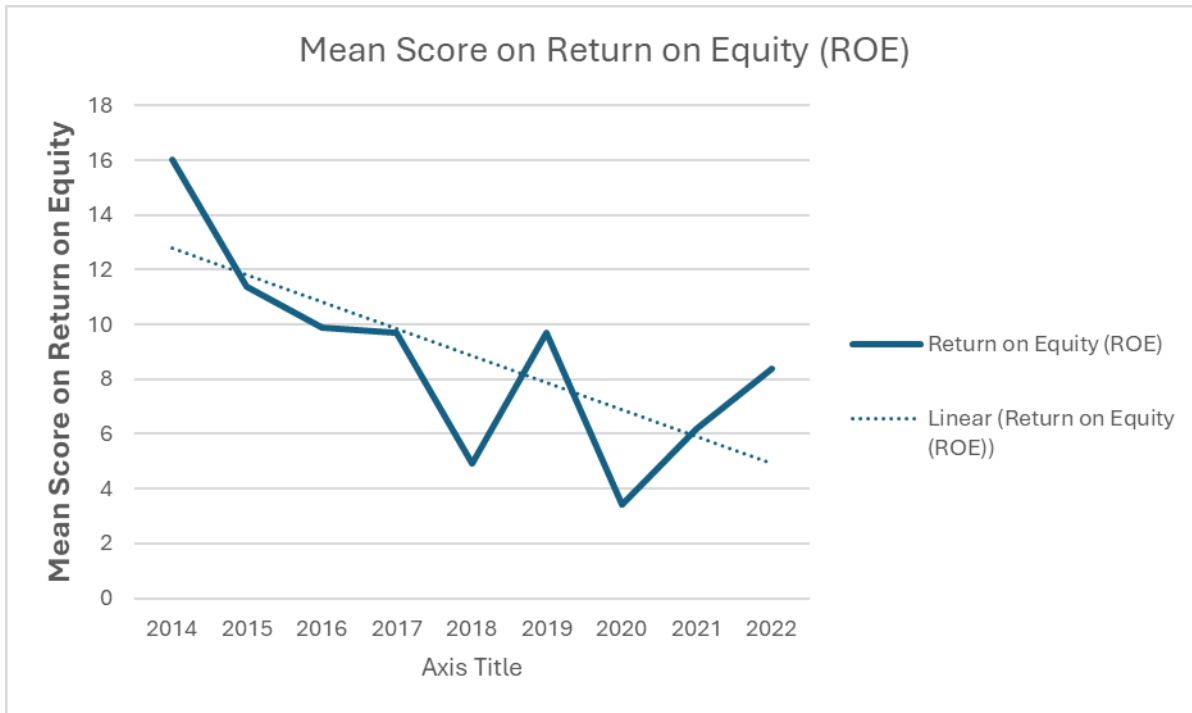
**Source: Research findings (2025)**

As depicted in Table 1, the study found that the average profitability of insurance firms in Kenya, as measured by Return on Equity (ROE), stood at 1.84% with a standard deviation of 0.5976, ranging from a minimum of -6.4189 to a maximum of 7.4342. Return on Assets (ROA) recorded a mean of 1.85%, a relatively modest figure, with values spanning from -0.7993 to 0.3628 and a standard deviation of 0.0807. These results suggest a mixed performance across firms, with significant disparities in their capacity to generate returns either from shareholder equity or total asset investment. The mean credit risk was considerably elevated, averaging 25.72%, exceeding the regulatory benchmark, and varied broadly across firms (SD = 0.4060; Min = 0.0003; Max = 5.7099).

### 6.2 Trend Analysis

#### 6.2.1 Return on Equity

The study sought to show the variation in Return on Equity (ROE) in insurance firms in Kenya for the period of the study. The means for the data was computed and used in the computation of the trend analysis, which is presented in Figure 4.

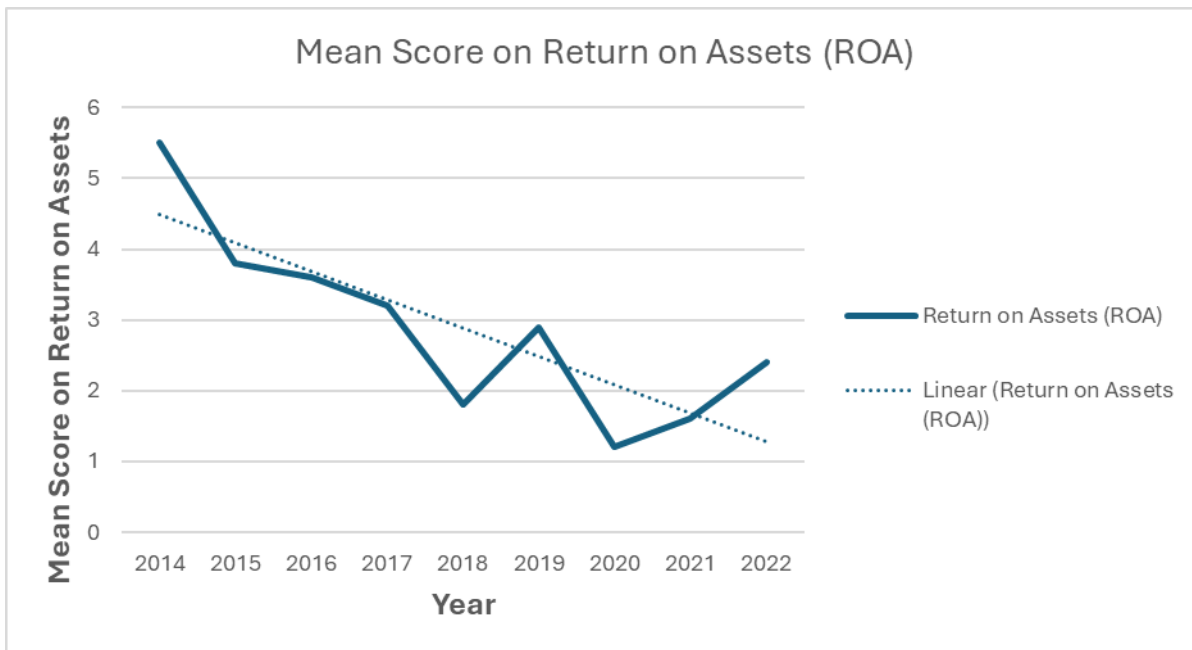


**Figure 4: Insurance Industry Trend of Return on Equity (ROE)**  
Source: IRA (2023)

Over the study period we observed a decline in the compound annual growth rate (CAGR) in ROE of -7.74% and an overall decrease of -47.5% over the period, despite slight recovery in 2019 and 2022, with the highest rates of decline occurring between the years of 2014 – 2015, 2017 – 2018 and 2019 – 2020 as shown by the findings in Figure 4. This may be explained by an overall decline in Profit before tax of -33.19%, while Shareholders funds saw an increase of 76.5% over the period.

#### 6.2.2 Return on Assets

The study sought to show the variation in Return on Assets (ROA) in insurance firms in Kenya for the period of the study. The means for the data was computed and used in the computation of the trend analysis, which is presented in Figure 5.

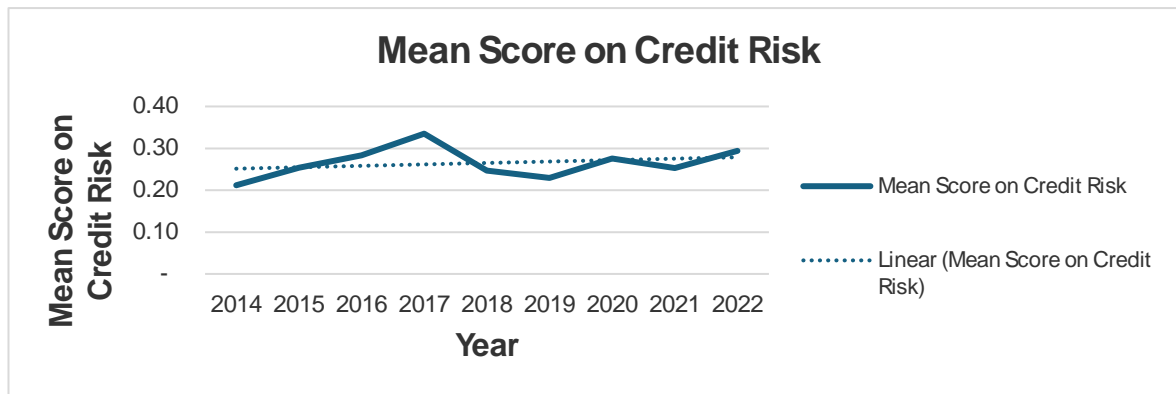


**Figure 5: Insurance Industry Trend of Return on Assets (ROA)**  
Source: IRA (2023)

Over the study period we observed a decline in the compound annual growth rate (CAGR) in ROA of -9.85% and an overall decrease of -56.36% over the period, despite slight recovery in 2019 and 2022, with the highest rates of decline occurring between the years of 204 – 2015, 2017 – 2018 and 2019 – 2020 as shown by the findings in Figure 5. This may be explained by an overall decline in Profit before tax of -22.61%, while Total assets saw an increase of 76.5% over the period.

### 6.2.3 Credit Risk

The study sought to show the variation in credit risk in insurance firms in Kenya for the period of the study. The means for the data was computed and used in the computation of the trend analysis, which is presented in Figure 6.



**Figure 3: Insurance Industry Trend of Credit risk**  
Source: IRA (2023)

Over the study period we observed a compound annual growth rate (CAGR) in Credit risk of 4.18% and an overall growth rate over the period of 38.76%, with the highest increase occurring in 2017 (0.33) followed by significant dip in 2018 (0.25) and 2019 (0.23) before reverting to the mean trend, as shown by the findings in Figure 3. This may be explained by the increase in Outstanding premiums during the period by 30.8%. Spierdijk and Koning (2014) and Bailey (2014) contend that key contributors towards increase in outstanding premiums would include financial difficulties as pertains to policy holders exacerbated by recessions or economic downturns, increases in premium Rates due to inflation, rising claims costs or market adjustments, regulatory or policy changes.

### 6.3 Correlation Analysis

The study conducted a correlation analysis as shown in Table 2.

#### 6.3.1 Credit Risk and Return on Equity

**Table 2: Correlation Analysis of Credit Risk and Return on Equity**

	Return on Equity	Credit risk
Return on equity	1.0000	
Credit risk	-0.6304	1.0000

Source: Research findings (2025)

Table 2 depicts the correlation between the study variables (Credit risk, return on Equity). The findings show that the link between Credit risks against Return on Equity (ROE) was a strong negative at -0.6304, and significant with a p value of 0.0000, which is less than 0.05. This implies that higher or lower credit risk significantly impacts profitability as measured by ROE, hence, firms exposed to higher default rates struggle with profitability.

#### 6.3.2 Credit Risk and Return on Assets

**Table 3: Correlation Analysis of Credit Risk and Return on Assets**

	Return on Assets	Credit Risk
Return on assets	1.0000	
Credit risk	-0.5707	1.0000

Source: Research findings (2025)

Table 3 depicts the correlation between the study variables (Credit risk, Return on Assets). The findings reveal a strong negative and statistically significant relationship between credit risk and Return on Assets (ROA), with a coefficient of -0.5707 and a p-value of 0.0000, indicating that higher credit risk substantially reduces firms' ability to generate returns from their assets, likely due to increased defaults and provisioning costs.

#### 6.4 Panel Regression Analysis and Hypothesis Testing

##### 6.4.1 Credit Risk and Return on Equity

Table 4 includes regression analysis of Credit risk and ROE. Random effects regression model was used.

**Table 4: Regression Analysis of Credit Risk and Return on Equity**

ROE	Coef.	Std. Err.	z	P>z
Credit risk	-0.2507	0.1026	-2.4400	0.0150
_cons	0.0346	0.0195	1.7800	0.0760

Source: Researcher (2025)

From the findings in Table 4, the following optimal model was developed:

$$ROE_{it} = 0.0346 - 0.2507CR_{it} + \varepsilon_{it}$$

Where:

$ROE_{it}$  = Return on Equity of Insurance firm i at time t.

$CR_{it}$  = Credit Risk for Insurance firm i at time t.

$\varepsilon_{it}$  = the error term

The study found a negative and statistically significant relationship was identified between credit risk and Return on Equity, with a coefficient of -0.2507 and a p-value of 0.0150. Consequently, the null hypothesis ( $H_{01}$ ) was rejected, indicating that elevated credit risk undermines profitability in Kenya's insurance sector. This implies that poor receivables management or exposure to default-prone clients can significantly reduce returns. These findings align with prior results from Muriithi (2016) and Ekinici and Poyraz (2019).

##### 6.4.2 Credit Risk and Return on Assets

Table 5 presents the regression analysis of Credit risks and Return on Assets. Random effects regression model was used.

**Table 5: Regression Analysis of Credit Risk and Return on Assets**

ROA	Coef.	Std. Err.	z	P>z
Credit risk	-0.1440	0.1252	-1.1500	0.2500
_cons	0.0367	0.0238	1.5400	0.1230

Source: Researcher (2025)

From the findings in Table 5, the following optimal model was developed:

$$0.0367 - 0.1440CR_{it} + \varepsilon_{it}$$

Where:

$ROA_{it}$  = Return on Assets of Insurance firm i at time t.

$CR_{it}$  = Credit Risk for Insurance firm i at time t.

$\varepsilon_{it}$  = the error term

The regression analysis showed a negative but statistically insignificant relationship between credit risk and ROA, with a coefficient of -0.1440 and a p-value of 0.2500, leading to the acceptance of the null hypothesis ( $H_{01}$ ). This implies that variations in credit risk do not significantly alter asset-based profitability within the sector. Despite the negative trend, the lack of significance suggests that other factors may play a stronger role in determining ROA. The result supports findings by Petria et al., (2016), who also observed an insignificant influence.

#### 7. Conclusions and Recommendations

The regression findings showed a negative and statistically significant effect of credit risk on ROE, while the effect on ROA was negative but statistically insignificant. The study therefore concludes that higher levels of credit risk, measured through

unpaid or overdue premiums, reduce profitability, particularly from the shareholders' perspective. The erosion of ROE indicates that excessive exposure to credit risk can strain capital adequacy and limit reinvestment capacity. Although ROA remained relatively unaffected, the overall financial structure of firms becomes weaker with poor credit performance. These findings highlight the importance of enforcing effective credit control policies, timely premium collection, and risk-based underwriting strategies to maintain profitability and operational resilience.

As a result, the study recommends that Insurance firms in Kenya should enhance their credit risk evaluation processes and underwriting standards, particularly for policyholders, corporate clients, and investment portfolios, to minimize defaults and claim-related financial losses. Additionally, firms should look to implement advanced risk assessment tools, such as credit scoring models and stress testing, to proactively manage and mitigate credit risk exposure. Also, strengthening credit collection processes and claims recovery mechanisms can reduce the financial burden caused by defaulting policyholders or counterparties. Further, since credit risk negatively impacts ROE, insurers should better diversify their investment portfolios, reducing excess exposure to risky credit instruments and focusing on high-quality, low-risk assets. With regard to theory, the findings suggest that traditional risk-return trade-off models may not fully explain the relationship between credit risk and profitability in insurance firms. Researchers should refine existing theories to incorporate industry-specific risk dynamics.

Based on the findings, Insurance Regulatory bodies in Kenya should enhance credit risk assessment frameworks for insurance firms, ensuring stricter due diligence in underwriting and investment decisions. They may also look to implement risk-based capital requirements that account for credit risk exposure to safeguard profitability and financial stability. Additionally, policymakers may establish stricter credit underwriting standards by mandating stronger credit screening processes for policyholders, corporate clients, and investment counterparties to minimize defaults. Further, regulators should guide insurance firms to diversify their investment portfolios to reduce overreliance on high-risk assets that may increase credit exposure.

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