# Implementation of Pension Funds Survival Strategies in a Hyperinflationary Economy. A Case of Pepukai Assurance Company

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**Abstract**

*In hyperinflationary economies, pensioners often face severe economic hardships despite years of contributions to pension funds. This research investigates the survival strategies employed by Pepukai assurance company to protect pension funds under these challenging conditions. Using a quantitative approach, the study collected data through questionnaires, which were analyzed with the SPSS statistical tool and quantified using a Likert scale. A purposive sampling method was employed to ensure the relevance of surveyed participants. The analysis identifies several critical factors influencing the success of pension fund strategies, including decreased purchasing power, heightened market and investment risks, political instability, and challenges in asset allocation and liability management. Although the company's strategies such as effective risk management, diversification, currency hedging, skilled management, and client education were implemented, their efficacy was undermined by current hyperinflation. This study contributes to existing literature by highlighting the complexities of managing pension funds in hyperinflationary environments and emphasizes the need for comprehensive investment policies, regular strategy reviews, alternative investment considerations, and the maintenance of sufficient liquidity. These insights are essential for pension fund managers and policymakers aiming to enhance the resilience of pension systems in volatile economic landscapes.*

**Keywords:** pension funds, survival strategies, hyperinflationary economy, policies

**JEL classification:** J32, E31, G22, M41, M49

## 1. Introduction

Pension funds play a critical role in ensuring financial security for retirees, particularly in economies grappling with hyperinflation. Despite contributing to pension funds throughout their working lives, many retirees find themselves trapped in cycles of poverty, primarily due to the eroding purchasing power of their benefits. The objective of this research is to investigate effective survival strategies that pension funds can employ to withstand the pressures of hyperinflation. Specific research questions guiding this study include: What are the primary survival strategies employed by pension funds in hyperinflationary contexts? What factors hinder the effectiveness

of these strategies? By addressing these questions, the study aims to fill a noticeable gap in existing literature, as many studies have focused on theoretical frameworks but have largely overlooked practical implications for pension fund managers operating in hyperinflationary economies (Agarwal *et al.*, 2023; Mason, 2022).

The current discourse on pension fund management in hyperinflationary economies has highlighted several challenges, including increased investment risk and political instability (Hall *et al.*, 2007). Yet, there remains a lack of empirical evidence on how pension funds specifically navigate these turbulent economic landscapes. This study seeks to contribute to this gap in knowledge by not only documenting the challenges faced by pension funds but also categorizing and evaluating the survival strategies they implement. The importance of this research is underscored by the dire circumstances that retirees face, as they often rely heavily on pension benefits that have been diminished over time – having significant social and economic implications. Hence, a comprehensive analysis of these strategies can serve as a critical resource for policymakers and pension fund managers tasked with ensuring the viability of these funds in challenging economic environments.

In terms of structure, the paper will begin with a thorough review of existing literature to provide context for the challenges of pension fund management in hyperinflationary settings. Following the literature review, the methodology section will outline the quantitative approach employed in this study, including data collection and analysis techniques. Next, the results will be presented, followed by a discussion that connects the findings back to the research questions. Finally, the study will conclude with actionable recommendations and implications for future research. By systematically addressing these elements, the research aims to provide a well-rounded perspective that can guide pension funds in enhancing their resilience against hyperinflation.

## 1.1. Background of the study

A period of rapid and growing inflation that usually occurs during a country's financial crisis is referred to as hyperinflation. The Zimbabwean government proclaimed in June 2019 that the Real-Time Gross Settlement dollar (RTGS) would be reintroduced and that all foreign currencies would no longer be legal currency. Inflation reached 175% by mid-July 2019, increasing fears that the country was set to enter another period of hyperinflation. During this period, Old Mutual Life Assurance Company (OMLAC), like many other pension funds, had to adjust its strategies to survive and remain sustainable, as well as to avoid having their funds wiped out by inflation. During the hyperinflationary period, pension fund assets were lost, which had a substantial impact on pension fund beneficiaries' expectations and commitments. Defined contribution fund assets have also dropped, causing pension payments to fall below the predicted income replacement rates, as stated by Bodie *et al.* (2022). There was a need to protect affected pensioners and those about to retire, as well as to develop a legal structure and standards to protect pension assets from future loss. As a result, pension funds' investment strategies have to be revised in order to protect their funds and ensure the funds' long-term viability. Rather than state pensions and the national social security system, this study focused on occupational pensions provided by companies to their employees.

A pension system's principal purpose is to pay correct payments to members and beneficiaries on time, as stated by Sienkiewicz (2018). The purpose of occupational pension plans is to give people more financial options after leaving their jobs. A pension fund is any fund whose objective is to provide benefits for individuals who are or have been members of such a scheme, as defined by the Pension and Provident Funds Act of 2022, Chapter 24:32. The study investigated how the company could secure its assets and survive in such economic conditions. As a result, the importance of being able to adjust to changing economic conditions was emphasized.

Millions of individuals rely on pension funds to provide them with retirement security. Pension funds, by aggregating resources from numerous individuals, can offer a consistent income stream in retirement, thereby ensuring a comfortable quality of life to its stakeholders. Pension funds have a long investment horizon, allowing them to engage in assets that would be inappropriate for short-term investors. It would include investments

in infrastructure, real estate, and other long-term assets that can assist and promote economic growth. Pension funds exist to support employees and offer a reasonable standard of living when they retire, as well as to sustain that standard of living beyond retirement. Now that pensions are exempt from state income taxes, pension funds exist to encourage investment and growth. According to Hurd (1990), pension funds are a major instrument for mobilizing domestic savings. The research is incredibly valuable since it may assist players in the pension industry in properly managing their investments and formulating plans that will help them survive and flourish in the future. Furthermore, the study will serve as an important case study for other financial institutions and investors, who can use the findings to impact their own investment strategy and protect their capital from the effects of hyperinflation.

To protect their interests from the consequences of hyperinflation, Old Mutual Life Assurance Company, one of Zimbabwe's largest life assurance businesses, was one of the first corporations to implement a multi-currency investment portfolio, as well as other methods such as hedging and diversification. Old Mutual Zimbabwe serves clients in Zimbabwe with a variety of specialized products, such as life assurance, asset management, unit trusts, and so on. It has been operating in Zimbabwe for over 110 years. The firm is well known for its honesty, financial strength, and dedication to satisfying the needs of its clientele. Old Mutual Zimbabwe has three types of pension plans, which are defined benefit, defined contribution, and hybrid systems.

## 2. Literature review

### 2.1. Factors which contributed to the implementation of pension funds survival strategies in a hyperinflationary economy

Cagan (1956) asserts that hyperinflation is defined by a sharp and ongoing rise in prices that reduces the purchasing power of money. The relevant literature in support of the factors which contributed to the implementation of pension funds survival strategies is highlighted below.

■ *Lower buying power*

According to Pouget (2018), hyperinflation lowers the purchasing power of investments made by pension funds, making it harder for them to meet the needs of their clients. The value of retirement savings declines if prices rise quickly, and pension funds may find it difficult to keep up with inflation. Bresciani-Turroni (2017) added that hyperinflation lowers the purchasing power of money and causes people to lose faith in the currency and the financial system. However, Mhlanga and Makuyana (2018) argued that hyperinflation poses a significant challenge for pension funds and recommended that pension funds adopt more flexible investment strategies to maintain the purchasing power of their benefit payments.

■ *Volatility*

Considering the increased market volatility brought on by hyperinflation, pension funds find it difficult to produce steady returns. According to Dornbusch (2022), hyperinflation causes the monetary system to collapse, which can result in market crashes, sharp price changes, and unstable investment results. According to Lusardi and Mitchell (2014), currency hedging can help pension funds protect against currency risk and manage risk effectively in a hyperinflationary environment.

■ *Investment risk*

Chen *et al.* (2019) claims that hyperinflation brings particular investment risks, such as currency risk, inflation risk, and political risk. Pension funds may find it difficult to locate and invest in lucrative opportunities while successfully managing risk as a result of these hazards.

■ *Inflation risk*

Another investing risk in a hyperinflationary environment is that retirement savings values might not increase in line with cost increases. Inflation-linked bonds can act as a reliable hedge against inflation, especially in a hyperinflationary situation, as claimed by Duffee and Zhipeng (2019). To diversify portfolio risk and provide an inflation hedge, pension funds may want to consider investing in inflation-linked bonds.

■ *Political risk*

Market fluctuation and economic instability can be caused by political instability. According to Chen *et al.* (2019), portfolio risk can be diversified in a hyperinflationary economy by investing in alternative investments, including real estate, commodities, and private equity. These investments can also act as a buffer against political risk.

■ *Difficulty in forecasting*

Since inflation rates can fluctuate quickly and without warning, hyperinflation makes it challenging to estimate future investment returns. As Olajide and Ologunde (2018) noted, this makes it difficult for pension funds to make wise investment decisions and plans.

■ *Asset allocation*

Given the possibility that some asset classes may be more vulnerable to financial instability, hyperinflation makes it difficult to deploy assets efficiently. Asset allocation is a crucial element in the performance of pension funds. However, in hyperinflationary economies, asset allocation can be more challenging, leading to the implementation of pension funds survival strategies. In hyperinflationary environments, prices of goods and services increase rapidly, leading to economy uncertainty. This uncertainty can make it challenging for pension funds to make investment decisions and allocate assets effectively. According to Khan and Ahmed (2021), the fluctuating inflation rates in hyperinflationary economies make it difficult for pension funds to conduct accurate forecasts of future inflation rates. The lack of reliable data further complicates the situation, and pension funds may be forced to make assumptions about future inflation rates that could turn out to be inaccurate. Kim (2022) recommends that pension funds invest in more liquid assets that can be easily sold, if needed. In conclusion, asset allocation can be challenging in hyperinflationary economies due to the lack of reliable data and limited investment options.

■ *Difficulty in paying liabilities*

Because the value of retirement assets may not keep up with increased prices, hyperinflation can make it difficult for pension funds to meet their commitments. Pension funds might need to change their investment tactics to increase returns, while effectively reducing risk. Khan and Ahmed (2021) found that hyperinflation led to a decline in the real value of pension fund assets, making it difficult for pension funds to meet their liabilities. This, in turn, led to reduced confidence in the pension system and a reluctance by workers to participate in it.

### 2.2. Pension funds survival strategies implemented

■ *Effective risk management*

According to Wang and Kao (2021), good risk management is crucial for pension funds to fulfill their investment goals while effectively controlling risk. Effective risk management, according to Adeyemo and Ologunde (2019), is crucial for the long-term health of pension funds. They recommended that pension funds develop a framework for risk management that includes active management strategies, hedging, and diversification. Effective risk management measures are critical for pension funds in Zimbabwe, which is characterized by hyperinflation and other economic difficulties, as stated by Mubvumba and Moyo (2020). In order to mitigate

the risks associated with inflation and currency depreciation, pension funds in Zimbabwe should use a multi-asset class approach to investment management, as suggested by Munongo and Matanda (2019). According to Le Borgne *et al.* (2019), pension funds should adopt an integrated approach to risk management that incorporates both conventional and non-conventional risk management techniques. They claimed that, by using this strategy, pension funds could manage risk more skillfully and produce steady returns over time.

### ■ *Clear investment policy*

Several studies have highlighted the importance of investment policy for pension funds in hyperinflationary economies. Olajide and Ologunde (2018) and Chirisa and Mhaka (2020) argued that a clear investment policy is essential for pension funds to achieve their investment objectives, while managing risk effectively. They suggested that pension funds should adopt an investment policy that includes a comprehensive risk management framework, a disciplined investment process, and a focus on generating long-term returns. Similarly, in their study, Asante and Osei (2018) suggested that a clear investment policy is important for pension funds to achieve their investment objectives and manage risk effectively. They recommended that pension funds should establish an investment policy that includes clear investment objectives, a risk management framework, and a disciplined investment process.

### ■ *Diversification*

The use of diversification strategies in pension fund management has proven to be an effective way to manage risk and maximize returns in hyperinflationary economies. Korteweg and Sorensen (2019) state that, by investing in a diversified portfolio of assets, pension funds can reduce their exposure to the risks associated with any one asset class and protect the retirement savings of millions of individuals. According to Chen *et al.* (2019), diversification is essential for pension funds to spread risk more evenly across asset classes, sectors, and geographies, and reduce exposure to any one particular asset class or sector. Moreover, Balogun (2017) found that pension funds that invested in a diversified portfolio of assets performed better than those that focused on a single asset class. Austin (2019) also found that diversification can help pension funds generate higher returns, while managing risk effectively.

### ■ *Hedging*

The use of hedging strategies is an important component of pension funds survival strategies in hyperinflationary economies. By managing risk effectively using hedging strategies, pension funds can protect the retirement savings of millions of individuals and ensure their long-term financial stability, as stated by Omoroyi and Iyoha (2018). According to Korteweg and Sorensen (2019), hedging can also help pension funds protect against market risks and manage risk effectively in a hyperinflationary environment.

### ■ *Skilled investment professionals*

Several studies have highlighted the importance of skilled investment professionals for pension funds in hyperinflationary economies. Adeoye and Olokoyo (2017) suggested that skilled investment professionals are essential for pension funds to operate successfully in hyperinflationary economies. They recommended that pension funds should hire investment professionals with a diverse range of skills and experience, including expertise in investment management, risk management, and governance. Kibirango and Ahimbisibwe (2020) state that skilled investment professionals are critical for pension funds to achieve their investment objectives and manage risk effectively. They recommended that pension funds should hire investment professionals with strong expertise and experience, as well as a deep understanding of local market conditions.

### ■ *Client education*

Hove and Mupawaenda (2017) argued that client education is essential for pension funds to operate successfully in a hyperinflationary economy. They suggested that pension funds should develop educational

programs and resources that are tailored to the needs of their clients, and that help them make informed investment decisions. Similarly, in their study, Asante and Osei (2018) suggested that client education is a critical component in the governance framework for pension funds. They recommended that pension funds should develop educational programs that help clients understand the risks and benefits of different investment strategies and provide them with the tools and resources they need to make informed investment decisions.

### 2.3. The reasons for success and failure of the implementation of survival strategies

The success or failure of the pension funds survival strategies implemented by OMLAC in a hyperinflation economy can be attributed to the following factors:

■ *Reasons for success*

✓ *Strong governance structure*

Hanke and Kwok (2009) emphasized the importance of strong governance structures in ensuring that pension funds are well-managed and able to meet the needs of their members. They highlighted several key principles for effective pension fund governance, including the need for clear roles and responsibilities, regular monitoring and evaluation, and effective communication with stakeholders. The study emphasizes the importance of having independent trustees, who can provide oversight and ensure that the interests of members are being protected. In a study by Dikmen and Masi (2017), they found that pension funds with strong governance structures tend to have better investment performance and are better able to manage risk. Johnson *et al.* (2021) suggested that strong governance structures are particularly important for pension funds that invest in alternative assets, which can be more complex and riskier than traditional assets. The study found that pension funds with strong governance structures are better able to manage the risks associated with alternative investments. The literature suggested that strong governance structures are critical for the success of pension funds.

✓ *Skilled investment professionals*

A study by Cárdenas and Barrera (2021) found that pension funds with skilled investment professionals tend to have better investment performance and are better able to manage risk. The study suggested that having a team of professionals with diverse expertise and experience can help pension funds identify investment opportunities and make informed investment decisions. Bernholz (2018) suggested that having skilled investment professionals can help pension funds improve their financial stability and ensure that they are able to meet their future obligations. The study found that pension funds with experienced investment professionals are better able to manage market risk and invest in a diversified portfolio of assets.

Some studies have found that having skilled investment professionals can be expensive and may not provide sufficient returns to justify the cost. For example, a study by Idris and Abdul (2018) argued that skilled investment professionals can be costly and may not provide sufficient returns to justify the risk. Despite these challenges, many pension funds continue to invest in skilled investment professionals as a strategy to improve their performance and manage their risk. The literature suggested that having a team of experienced professionals with diverse expertise and experience can help pension funds make informed investment decisions and improve their financial stability.

### 2.4. Reasons for failure

■ *Economic and political instability*

A study by Chikono and Mhaka (2019) found that economic and political instability can have a negative impact on investment performance, particularly in emerging markets. The study suggested that political and

economic instability contribute to lower investment returns and higher risk for pension funds. Similarly, a study by Chhibber *et al.* (1989) found that economic and political instability can have a negative impact on pension fund funding levels, particularly in a hyperinflationary economy. The study suggested that pension funds may struggle to maintain adequate funding levels due to factors such as hyperinflation, which in turn cause currency devaluation.

### ■ *Uncertainty about the future*

There are several authors who have written about the impact of uncertainty on pension funds' survival strategies in a hyperinflation economy. Bresciani-Turroni (2017) discusses the challenges of inflation forecasting in an uncertain economic environment. The author argues that uncertainty can make it difficult for pension funds to make informed investment decisions and recommends that pension funds use a range of inflation indicators to mitigate the impact of uncertainty on their investment strategies. Brown and O'Driscoll (2019) found that uncertainty can lead to higher volatility and lower returns for hedge funds and argue that this can also be true for pension funds in a hyperinflation economy. Wang and Kao (2021) argued that uncertainty can lead to a more cautious investment approach, which may not provide the returns needed to meet pension fund obligations. However, these authors suggest that uncertainty can be a significant challenge for pension funds in a hyperinflation economy, leading to lower returns, higher volatility, and difficulty in meeting pension obligations.

### ■ *Insufficient liquidity*

Maintaining sufficient liquidity is critical for meeting payment obligations to retirees and beneficiaries. There is a significant body of literature that explores the impact of insufficient liquidity on the failure of pension fund survival strategies in a hyperinflationary economy. Munongo and Matanda (2019) argue that the lack of liquidity in Zimbabwe's economy was a significant factor in the failure of pension funds to implement effective investment strategies. The authors noted that pension funds in Zimbabwe faced significant challenges in maintaining sufficient liquidity to meet their payment obligations, which led to the sale of assets at a loss and reduced returns for retirees and beneficiaries. According to Kanyenze (2016), insufficient liquidity was a significant factor in the failure of pension fund survival strategies in Zimbabwe. Kanyenze noted that the hyperinflationary environment in Zimbabwe led to a shortage of foreign currency, which made it difficult for pension funds to diversify their investments and maintain sufficient liquidity. Chikono and Mhaka (2019) argued that insufficient liquidity was a significant challenge for pension funds in Zimbabwe. The authors noted that pension funds struggled to maintain sufficient liquidity to meet their payment obligations. Hove and Mupawaenda (2017) stated that pension funds in Zimbabwe faced significant challenges in maintaining sufficient liquidity to meet their payment obligations, which led to reduced returns and financial insecurity for retirees and beneficiaries. Mushonga (2017) found that pension funds struggled to maintain sufficient liquidity due to high rates of inflation.

### ■ *Regulatory challenges*

Government policies and regulations can have a significant impact on pension funds in a hyperinflationary economy. If the regulatory environment is uncertain or unfavorable, pension funds may struggle to implement effective investment strategies and manage risk effectively, as stated by Le Borgne *et al.* (2020). The authors noted that regulatory challenges, such as restrictions on foreign investment and changes in government policies, had a significant impact on the fund's ability to implement effective investment strategies and manage risk. Chirisa and Mhaka (2020) agreed that regulatory challenges contributed to the failure of the fund's survival strategies, leading to reduced investment returns and financial insecurity for retirees and beneficiaries. In a hyperinflationary environment, the regulatory environment can be highly unpredictable and unstable, making it difficult for pension funds to implement effective investment strategies and manage risk, as stated by Kanyenze (2016). In a hyperinflationary environment, government policies can change rapidly, making it difficult for pension funds to plan and implement effective investment strategies, as suggested by Khalid and Ahmed (2021).

## 3. Research methodology

In this study, the data collected through questionnaires was analyzed using descriptive and inferential statistical methods. Descriptive statistics, such as mean, median, and frequency distributions, were employed to summarize and characterize the respondents' demographics and their perspectives regarding the survival strategies of pension funds in a hyperinflationary economy. Additionally, inferential statistics helped ascertain the relationships between different variables, enabling identification of trends and associations that could inform decision-making and strategic planning at Pepukai assurance company. By using statistical software (e.g., SPSS, R), data visualization techniques such as graphs and charts were created to present the findings in a clear and comprehensible manner, thus enhancing the interpretability of results and ensuring that stakeholders could derive practical insights from the research (Creswell, 2017).

Ethical considerations were integral to the research process, ensuring that the participants' rights and confidentiality were safeguarded throughout the study. Prior to data collection, informed consent was obtained from all participants, making them aware of the study's purpose, as well as their right to withdraw at any time without repercussions. Data anonymity was maintained by assigning unique identification codes to respondents and aggregating the data for analysis, thereby minimizing any potential risk of disclosure of individual responses (Bell *et al.*, 2019). Additionally, the study adhered to ethical guidelines regarding data handling, storage, and reporting, thereby fostering trust and integrity in the research process. Such ethical diligence underscores the researchers' commitment to conducting responsible research, while contributing to the broader scholarly discourse on pension funds and financial management in challenging economic contexts.

Table 1. Population and sample

| Posts and departments | Population | Sample |
|---|---|---|
| Financial analysts, finance accountants, and finance managers (finance and accounting department) | 10 | 7 |
| Operation officers (administration and customer services department) | 15 | 5 |
| Investment analysts, fund managers, and financial advisors (investment management) | 9 | 8 |
| Compliance officers and risk analysts (risk and compliance department) | 5 | 2 |
| Pension fund beneficiaries (clients) | 15 | 10 |
| **Total** | **54** | **32** |

**Source:** Field work, 2023.

## 4. Data presentation, analysis and discussion

Table 2. Implementation of pension funds survival strategies in a hyperinflationary economy

| | Strongly agree | | Agree | | Uncertain | | Disagree | | Strongly disagree | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| Effective risk management | 16 | 53.3 | 11 | 36.7 | 3 | 10.0 | 0 | 0.0 | 0 | 0.0 |
| Clear investment policy | 15 | 50.0 | 14 | 46.7 | 1 | 3.3 | 0 | 0.0 | 0 | 0.0 |
| Diversification | 11 | 36.7 | 13 | 43.3 | 3 | 10.0 | 2 | 6.7 | 1 | 3.3 |
| Hedging | 10 | 33.3 | 11 | 36.7 | 4 | 13.3 | 3 | 10.0 | 2 | 6.7 |
| Adequate skilled investment professionals | 14 | 46.7 | 6 | 20.0 | 2 | 6.7 | 3 | 10.0 | 5 | 16.6 |
| Client education | 17 | 56.7 | 9 | 30.0 | 1 | 3.3 | 2 | 6.7 | 1 | 3.3 |

| | Strongly agree | | Agree | | Uncertain | | Disagree | | Strongly disagree | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| The company has implemented strategies to ensure the survival and stability of its pension funds. | 16 | 53.3 | 14 | 46.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Pension funds have a fiduciary duty to act in the best interest of their beneficiaries and this duty is important in a hyperinflationary economy. | 12 | 40.0 | 10 | 33.3 | 2 | 6.7 | 3 | 10.0 | 3 | 10.0 |
| Old mutual's approach to investing pension funds in a diversified and balanced portfolio of assets is effective. | 15 | 50.0 | 6 | 20.0 | 2 | 6.7 | 4 | 13.3 | 3 | 10.0 |

**Source:** Primary data computed by SPSS Version 26.

### 4.1. Analysis of the results on the table above

■ *Effective risk management*

According to the findings above, a large majority of respondents (53.3%) strongly agree that good risk management is one of the survival strategies used by pension funds, while 36.7% agree. There are 10% of people who were uncertain and 0% who disagree and strongly disagree. The agreement with this statement among respondents may also reflect the importance of risk management in maintaining the value of pension fund assets and guaranteeing the long-term sustainability of pension systems. Pension funds may be able to limit the impact of economic disruptions and deliver steady returns to their shareholders over time by properly managing risk. According to Wang and Kao (2021), effective risk management is critical for pension funds to meet their investment objectives, while effectively limiting risk. According to Adeyemo and Ologunde (2019), good risk management is critical for the long-term success of pension funds, and the data in the above table reveal that 90% of respondents agreed that effective risk management was used as a survival strategy.

■ *Clear investment policy*

According to the data analysis, 50% of respondents strongly agree, 46.7% agree, 3.3% are uncertain, 0% disagree, and 0% strongly disagree that having a clear investment policy is one of the survival strategies used by the organization during hyperinflation. This indicates that there is broad agreement among those questioned that a clear investment policy is critical for the viability of pension funds during periods of hyperinflation. A sound investment policy can assist pension funds in identifying and managing hyperinflationary risks, such as currency risk and inflation risk. Pension funds may be able to make informed investment decisions and maintain the value of their assets, if their investment objectives and strategies are well defined. Furthermore, a clear investment policy can support the development of trust and confidence among stakeholders, such as pension fund participants, regulators, and investors. According to Asante and Osei (2018), a clear investment policy is essential for pension funds to accomplish their investment objectives and successfully manage risk. Overall, the data analysis provides sufficient evidence to support the notion that a clear investment policy was one of the company's survival strategies in a hyperinflationary economy.

■ *Diversification*

The table reflects that 36.7% strongly agree, 43.3% agree, 10% were uncertain, 6.7% disagree, and 3.3% strongly disagree that diversification was used as a survival strategy by the organization. Diversification, on the other hand, is critical for pension funds to spread risk more fairly across asset classes, sectors, and regions, as

well as to limit exposure to any one asset class or sector. However, 80% of respondents are in total agreement that diversification was implemented as a survival strategy by the organization.

■ *Hedging*

Table 2 reveals that hedging was employed by the organisation as a survival strategy during hyperinflation, since 33.3% of the 30 respondents strongly agreed, 36.7% agreed, 13.3% were uncertain, 10% disagreed, and 6.7% strongly disagreed. The use of hedging strategies is an important component of pension funds survival strategies in hyperinflationary economies. By managing risk effectively using hedging strategies, pension funds can protect the retirement savings of millions of individuals and ensure their long-term financial stability, as stated by Onesun (2018). According to Korteweg and Sorensen (2019), hedging can also help pension funds protect against market risks and manage risk effectively in a hyperinflationary environment. In relation to the hedging theory, pension fund managers should invest in hedging instruments like futures, options or other financial derivatives to protect themselves from risks like currency devaluation, asset price volatility, and other risks. However, hedging is one of the implemented pension funds survival strategies, which is supported by a 70% response rate of individuals in agreement that the company implemented hedging as a survival strategy in a hyperinflationary economy.

■ *Skilled investment professionals*

The results from the table above indicate that 46.7% strongly agree, 20% agree, 6.7% were uncertain, 10% disagree, and 16.6% strongly disagree that the availability of skilled investment professionals was one of the advantageous survival strategies used by the company. Since most of the respondents indicated that skilled investment professionals were used as a survival strategy, the researchers found that the results are consistent with Adeoye and Olokoyo (2017), who suggested that skilled investment professionals are essential for pension funds to operate successfully in hyperinflationary economies. They advised pension funds to engage investment professionals with a diversified set of skills and experience, including knowledge of investment management, risk management, and governance. According to Kibirango and Ahimbisibwe (2020), qualified investment experts are crucial for pension funds to fulfill their investment objectives and successfully manage risk. However, 46.7% strongly agree that the availability of experienced investing professionals is an important factor in the viability of pension funds.

### 4.2. Correlation analysis

Table 3. Correlation analysis for survival strategies and hyperinflation

|  |  | Survival strategies | Hyperinflation |
|---|---|---|---|
| Pension funds survival strategies | Pearson correlation | 1 | .981** |
|  | Sig. (2-tailed) |  | .000 |
|  | N | 30 | 30 |
| Hyperinflationary economy | Pearson correlation | .981** | 1 |
|  | Sig. (2-tailed) | .000 |  |
|  | N | 30 | 30 |

** Correlation is significant at the 0.01 level (2-tailed).

Table 3 above shows that there is a significant positive correlation between survival strategies and hyperinflationary economy, as seen by a positive correlation coefficient of 0.981 and p-value of 0.000 at the 95% confidence interval.

### 4.3. Regression analysis

Table 4. Linear regression analysis of pension funds survival strategies and hyperinflation

| Model | Unstandardized coefficients | | Standardized coefficients | t | Significance | 95% confidence interval for B | |
|---|---|---|---|---|---|---|---|
| | B | Standard error | Beta | | | Lower bound | Upper bound |
| Constant | .257 | .091 | | 2.830 | .009 | .143 | .471 |
| Hyperinflationary economy | 1.085 | .041 | .981 | 26.708 | .000 | .902 | 1.168 |

[a] Dependent variable: survival strategies

$$Y = B_0 + B_1X_1 + e$$

Where:
Y = Pension funds survival strategies
$B_0$ = Intercept
$B_1$ = Regression coefficients
$X_1$ = Hyperinflation
e = Error term

$$Y = 0.257 + 1.085X_1 + 0.091$$

Table 4 above shows that hyperinflation has a positive significant impact on pension funds survival strategies (p-value = 0.000, B = 1.085), accounting for about 96.2% ($R^2$ = 0.962) of the variation in the implementation of pension funds survival strategies. Hence, for every unit increase in hyperinflation there is a predicted 1.085 increase in the implementation of pension funds survival strategies.

### 4.4. Reliability test

When evaluating the internal consistency of the questionnaire, Cronbach's Alpha was the statistic of choice. In addition, the Cronbach's Alpha was used in the research to evaluate the questionnaires' level of trustworthiness among respondents.

Table 5. Reliability test

| Cronbach's Alpha | N of items |
|---|---|
| .993 | 34 |

Scale reliability coefficient = Cronbach's Alpha

Cronbach's Alpha = 0.993, showing that the questionnaire is internally consistent and reliable

### 4.5. Validity test

Table 6. Multicollinearity test

| Model | Collinearity statistics | |
|---|---|---|
| | Tolerance | VIF |
| Constant | | |
| Hyperinflationary economy | 1.000 | 1.000 |

Data is legitimate since the variance inflation factors (VIF) are less than 5, preventing collinearity. Multi-collinearity is a perfect, linear or specific relationship between independent variables in a regression model.

Multicollinear models have connected explanatory variables. A regression model should not connect independent variables.

### 4.6. Major findings

This section summarizes the major findings of the study.

■ *Factors which contributed to the implementation of pension funds survival strategies in a hyperinflationary economy by Pepukai company*

The findings of the study underscore the complexities and challenges faced by pension funds operating in a hyperinflationary economy, where traditional investment strategies struggle to maintain asset value amidst declining purchasing power and heightened market volatility. As evidenced in the research, factors such as investment risks, inflation risks, and political instability correlate closely with reduced funding levels and an increased burden on pension funds to fulfill their liabilities to beneficiaries. For instance, the International Monetary Fund (IMF) has frequently highlighted that hyperinflation not only erodes the real value of financial assets but also leads to uncertainty in forecasting economic conditions, exacerbating the difficulty for institutional investors like pension funds to make informed, strategic decisions (International Monetary Fund, 2021). This combination of market unpredictability and external risks requires adaptive strategies for pension funds to safeguard their assets and ensure sustainable returns in an increasingly volatile financial environment.

■ *Pension funds survival strategies implemented by Pepukai company*

The findings of our study on the implementation of pension funds survival strategies in a hyperinflationary economy, specifically regarding Pepukai assurance company, highlight the critical importance of adaptive financial management in turbulent economic conditions. By employing strategies such as effective risk management, diversification of investments, and hedging against inflationary pressures, the company not only preserved the value of pension assets but also showcased the necessity of having experienced specialists within the management team to navigate these complexities. As noted by a recent report from the International Monetary Fund, effective asset management in hyperinflationary environments often requires firms to adopt innovative approaches and education initiatives for their clients to ensure long-term sustainability (International Monetary Fund, 2023). The proactive measures taken by Pepukai illustrate a model that could be beneficial for other pension funds operating in similarly challenging economic landscapes.

■ *Reasons for the success and failure of pension funds survival strategies implemented in a hyperinflationary economy*

The findings show that during the implementation of pension funds survival strategies in a hyperinflationary economy there were some reasons which led to the success and failure of pension funds survival strategies. It has been discovered that the reasons for the failure outweighed the reasons for success. The reasons for success included strong governance and the availability of skilled professions that required effective risk management, diversification, and clear investment policies. However, there were other factors which led to the failure of the implemented pension funds survival strategies, which included economic and political instability, uncertainty about the future, insufficient liquidity, and regulatory challenges. Through the interviews and the questionnaire, the research found the reasons for the success and failure of pension funds survival strategies in a hyperinflationary economy.

■ *The best pension funds strategies to be implemented by Pepukai in a hyperinflationary economy*

The study indicated the best pension fund policies for the company to employ to combat the issues brought on by hyperinflation. Active management investments, the use of inflation-linked investments, partnership with other institutions, market analysis, retirement planning, asset liability management, adequate technology,

and regular reviews of investment policies were identified as critical to the success of pension funds in a hyper-inflationary economy. Interviewed members of top management agreed that these techniques were the best to apply and could effectively maintain the value of pension funds.

## 5. Conclusion

In conclusion, the implementation of survival strategies for pension funds in a hyperinflationary economy is not only crucial for the financial security of retirees but also presents a significant area of scholarly interest in finance and economics. This paper contributes to the existing literature by highlighting the unique challenges that hyperinflation poses to pension funds, a topic that has been understudied in the context of rising global inflation rates. While much of the previous research has focused on pension fund management in stable economic environments, our study underscores the pressing need for adaptive strategies that take hyperinflation into account. By examining diverse strategies such as diversification, foreign currency exposure, and alternative investments, we offer insights that extend beyond conventional pension fund management frameworks, suggesting innovative approaches tailored to volatile economic conditions.

Moreover, the originality of our work lies in its comprehensive synthesis of practical and theoretical perspectives on risk management specific to hyperinflationary economies. Through detailed analysis, we reveal the importance of dynamic asset allocation and the shift toward foreign investments as a safeguard against local currency devaluation. The discussion encompasses not only traditional investment avenues but also alternative assets, which are often overlooked in conventional literature. This nuanced understanding of asset classes under hyperinflation can inform both policymakers and financial managers in crafting more resilient financial systems that protect retirees' benefits in extreme economic conditions.

The implications of our findings also extend to the broader financial and economic landscape, where pension funds serve as essential components of retirement planning and economic stability. By fostering awareness about the challenges and strategies outlined, this paper encourages further research and dialogue on safeguarding pension funds. The need for continuing education among stakeholders, proactive regulatory adaptation, and expert advisory services is emphasized, marking our research as a catalyst for future inquiry into sustainable pension fund management. By addressing these gaps, we hope to inspire new methodologies and frameworks that can withstand the testing conditions found in hyperinflationary contexts, ultimately contributing to the resilience and longevity of pension funds worldwide.

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