



FINANCING STRUCTURE AND FINANCIAL PERFORMANCE OF INDIVIDUAL PENSION FUNDS IN KENYA

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ABSTRACT

The purpose of the study is to investigate the effect of financing structure on the financial performance of individual pension funds in Kenya. The study specifically investigated the effect of retained earnings, amount of contributions, accruals and share capital structure on the financial performance of pension funds in Kenya. The study employed cross-sectional survey research design. A census of 47 individual pension schemes was selected out of a total 1308 registered pension funds in Kenya. Data was collected from the annual financial statements of the pension funds filed with RBA. Secondary data was collected using secondary data collection sheet. The collected data was edited, coded for processing using the Statistical Package for Social Sciences (SPSS v.29) and results were presented in frequency tables. Descriptive and inferential statistics was used to analyze information generated from the respondents. The study findings revealed that retained earnings and performance of individual pension schemes are positively and significantly correlated. This implies that an increase in retained earnings is associated with an increase in financial performance of pension funds. The study findings revealed that amount of contributions and performances are positively and significantly correlated. This implies that an increase in amount of contributions is associated with an increase in financial performance of pension funds. The study findings revealed that share capital and performance are positively and significantly correlated. The study findings revealed that accruals and performance are positively and significantly correlated. The study concludes that there is positive and statistically significant relationship between retained earnings, accruals, members' contribution and share capital on financial performance of individual pension schemes in Kenya. The study recommends that pension schemes should develop sustainable retention strategies to ensure financial stability. Policymakers may consider incentives for higher retained earnings, such as tax benefits or regulatory frameworks that encourage reinvestment of surpluses. Additionally, schemes should optimize their investment returns to support long-term fund sustainability.

Keywords: Share Capital Structure, Accruals Structure, Member Contributions Structure, Retained Earnings Structure

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INTRODUCTION

In the majority of industrialised nations, pension funds are a key source of long-term financing for the business sector (Bhat & Zaelit, 2017). In countries with strong and important capital markets, this intermediation occurs through a variety of processes. Pension funds buy long-term securities directly or indirectly, therefore boosting both the primary and secondary capital markets. Pension funds purchase long-term bonds (such as certificates of deposits) issued by banks in developed economies where universal banks predominate. This enables the banks to offer their corporate clients loans with a range of maturities (Amara & Aziz, 2017).

The company's choice of a long-term and short-term funding mix to acquire the assets needed for regular business operations is known as the financing structure. Generally speaking, a business has a wide range of various capital structures to select from (Karuma, 2018). It has the ability to issue both huge and small amounts of debt. It may set up lease financing, employ warrants, issue convertible bonds, enter into forward agreements, or engage in bond swap trading. It can issue hundreds of different securities in endless combinations, but it tries to identify the specific set of securities that will increase its market value the most. Numerous internal (micro) and external (macro) elements influence a company's financial structure. The main external elements that impact a firm's capital structure include macroeconomic factors including the government's tax policy, the rate of inflation, and the state of the capital markets. Enterprise capital structure is also impacted by micro factors, or the features of a certain business (Baral, 2017).

At the beginning of the COVID-19 pandemic in February and March 2020, the S&P 500 index plunged 34% globally in the US, which caused pension asset prices to fall as well. The markets then took off starting just a month later, driving returns into the black for fiscal year 2020 and up to 27% on average for fiscal 2021—the best annual

returns in more than 30 years (S&P Dow Jones, 2021). Pension fund returns have, however, decreased consistently this century despite the recent upswing, and a number of factors indicate that trend will continue. Future returns are projected to decline as market prices adjust because stock valuations are significantly higher than historical norms and because the Congressional Budget Office expects real gross domestic product (GDP) growth, a key factor in equity returns, to be lower in the following years than in fiscal 2021. Furthermore, with interest rates at record lows, expectations for returns on fixed-income assets like bonds are declining (Chasan, 2017).

Around the world, nations are actively working to improve their pension systems, often by increasing the use of financed pension plans run by the private sector in Africa (OECD, 2022). According to Stewart and Yermo (2017), only a small number of African nations have substantial publicly administered pension and social security systems, while several of them do offer pension coverage. Low assets under management, investments in short-term assets (mostly government securities), low returns on investments, and constrictive regulatory frameworks are characteristics of the pension industry in Sub-Saharan Africa (SSA) (Juergens & Galvani, 2020).

One thousand three hundred and eight (1,308) occupational pension plans and 49 individual pension schemes are included in the Kenyan RBA licenced pension schemes within the pension funds sector. 15% of the workforce is covered by the programmes. The Civil Service Scheme (CSS) accounts for 22% of this, the National Social Security Funds (NSSF) 67%, commercial schemes 10%, and individual schemes 1% (Soft Kenya, 2017). However, as of December 2011, pension managers have lost Kshs 17 billion (\$200 million), the first decline since the establishment of the sector regulator Retirements Benefits Authority (RBA) in 2002. According to Soft Kenya (2017), the downturn caused the value of pension assets to decline from

Kshs 420 billion (\$4.941 billion) in December 2010 to Kshs 403 (\$4,741 billion) in December 2011. During that time, the industry's typical return on investment fell to a negative 9.9%. The return for 2009 was - 4.28 percent.

Statement of the Problem

The growth of pension fund management institutions is crucial for maintaining the desired funding levels, improved equity market returns, achieving sustainable short- and long-term debts, defined financial structure, and high interest rates (Kirkendall, 2017). Pension fund management institutions are a special type of organisation because they hold long-term liabilities that belong to beneficiaries. Although private pension plans play a crucial role, the expansion of pension plans in Kenya is beset by a variety of challenges (Hannah, 2016), and there are no financial institutions in place to address inclusivity, ideal solutions, or the preferred investment mix.

On funding structure and financial performance, extensive literature has been produced. Omollo, Olweny, Oluoch, and Wamatanda (2021), for instance, focused their study on the financial structure and expansion of pension funds in Kenya. As the study concentrated on growth rather than financial success, contextual gaps were apparent. Consequently, Muli (2016) investigated insurance firm challenges in the management of pension funds in Kenya. However, the study present conceptual gaps as it did not address the financing structure in the context of pension funds. Makori (2017) studied asset liability management and pension schemes performance. This study sought to fill the literature gaps by investigating financing structure and financial performance of individual pension funds in Kenya.

Research Objectives

The general objective of this study was to investigate the effect of financing structure on financial performance of individual pension funds in Kenya. The study was guided by the following specific objectives:

- To establish the effect of retained earnings structure on financial performance of individual pension funds in Kenya
- To determine the effect of share capital structure on financial performance of individual pension funds in Kenya
- To explore the effect of members' contribution structure on financial performance of individual pension funds in Kenya
- To find out the effect of accruals on financial performance of individual pension funds in Kenya

LITERATURE REVIEW

Theoretical Framework

Market Timing Theory

According to the market timing theory, there is no ideal capital structure, financial decisions change with time, and the evolution of the capital structure must be viewed as the outcome of previous financing decisions. According to this notion, managers conduct a critical examination and will issue new shares if they think the existing ones would be overpriced. On the other side, when they are undervalued, they will purchase them again (Baker & Wurgler, 2016). An alternative interpretation of this theory suggests that capital structure dynamics are similar. According to Baker and Wurgler's research, companies with high leverage are those who raised money when stock prices were low, whereas those with low leverage raised money when share prices were high.

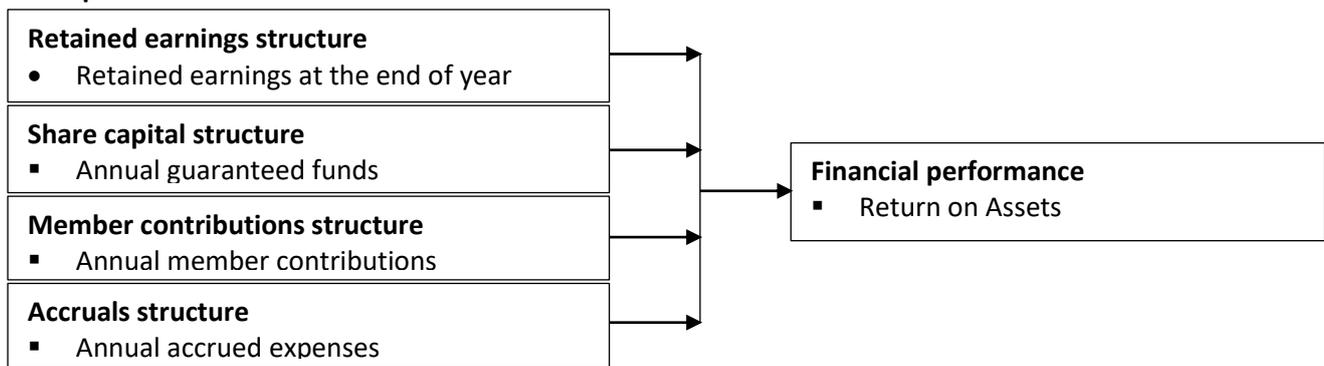
According to the hypothesis, corporations often issue equity promptly after receiving favourable information since there is less information asymmetry between the firm's management and investors. After the publication of favourable information, the corporations directly issue to potential investors to lessen the asymmetry problem. Regular information exchange can lead to an increase in stock prices for the firm, which opens up prospects for own timing.

Pecking Order Theory

The pecking order hypothesis is predicated on the idea that investors are aware of the potential for dealing with issues related to information asymmetry, such as managers' attempts to issue hazardous securities while they are overpriced. At the same time, being aware that shareholders would work to reduce this risk might prevent certain profitable ventures from being financed through the capital market. This idea, according to Pandey (2015), is predict

This idea is significant because it demonstrates how businesses define their capital structures by deciding to keep earnings rather than use debt to fund operations. This hypothesis will assist establish if profitable firms utilise less debt to support themselves in comparison to companies with lower profits because of their higher earnings. The theory will aid in determining whether distinct preference is given to internal finance over external finance, which is why it supports the long term debt structure variable, in connection to the influence of capital on performance from a financial perspective.

Conceptual Framework



Independent Variables

Dependent Variable

Figure 1: Conceptual framework

Empirical Review

To ascertain the effect of core capital on commercial bank profitability in Kenya, Nyagaka (2017) carried out a study. The purpose of the study was to ascertain how the core capital effect would affect profitability. According to the research, there is a positive linear relationship between core capital

Trade-Off Theory

According to the idea of trade-offs, the optimal level of debt is established by weighing the advantages of using debt financing against the costs associated with it. A highly successful company can thus use significant leverage to finance its operations or investments. According to the notion of trade-offs, most businesses attempt to strike a balance between the tax benefits of using leverage and the expenses related to its usage as a financing tool for investments in a business (Aliu, 2016).

For two key reasons—security and the costs of financial distress—the trade-off theory predicts that tangibility will be positively correlated with debt levels. First off, compared to intangible assets, physical assets often offer higher collateral values, which suggests that these assets can sustain a greater amount of debt. This hypothesis contends that the tax-shield effect, which results from the deduction of interest paid on debt, is the main advantage of using debt.

and profitability. Additionally, it demonstrated that core capital has an impact on 20% of profitability. This study found that banks have a responsibility to make sure their capital base is sufficient so they can provide loans and other essential financial services to their customers. This finding is consistent with earlier estimates that found that insufficient core

capital in the banks was a cause of less profitability in the commercial banks.

Karuma (2018) investigated the impact of loan financing on the financial performance of manufacturing companies in Nairobi. During the five-year period from 2013 to 2017, this study intended to examine the impact of short-term debt, long-term debt, interest rates, and corporation tax rates on the financial performance of manufacturing enterprises listed on the Nairobi Securities Exchange. The study used many models of linear regression. The data were analysed using descriptive statistics, correlation, and regression analysis. Software called SPSS (Statistical Package for the Social Sciences) was used to analyse the data. Debentures were discovered to be substantial to ROA, whereas bank overdrafts were not. Accounts payable was discovered to be significant to ROA.

Oguna (2016) conducted research on how capital structure affected the financial performance of companies listed on the NSE in the manufacturing, construction, and related sectors. The research design used in the study was descriptive. The study focused on 14 companies from the manufacturing, construction, and related industries that are listed on the NSE. The study made use of panel data and secondary data. The study employed SPSS to analyse the secondary data that was gathered. The study's conclusions showed that return on equity is impacted by both current and long-term debt.

METHODOLOGY

To conduct this investigation, a cross-sectional research design was used. According to Retirement Benefits Authority (2023), there are 1308 registered

Table 1: Test of Multi-collinearity

Variable	VIF	1/VIF
1 Retained earnings structure	1.06	0.9436
Share capital	1.04	0.9615
Members contribution structure	1.05	0.9524
Accruals structure	1.09	0.9174

a. Dependent Variable: Return on Investment

*Significance at the 0.05 level.

pension funds in Kenya. However, the study targeted individual retirement schemes which are 47.

Since the target population is small, the study adopted census technique.

The RBA-filled yearly financial statements and reports of the chosen pension funds served as the source of secondary data for this study. A secondary data collection sheet was used to gather the secondary data. The targeted individual pension funds got a structured secondary data collection sheet for filing.

As a data analysis tool, the Statistical Package for Social Sciences (SPSS version 29) was used to code and analyse the acquired data. From the gathered data, descriptive and inferential analyses were produced. Measuring central trends and measures of dispersion (mean and standard deviation) was done using descriptive statistics. To determine if the strength of the link between the independent factors and the dependent variable is statistically significant, regression analysis was used.

FINDINGS AND DISCUSSION

Diagnostic Test Results

The diagnostic tests were carried out which included normality test and multicollinearity test.

Test of Multicollinearity

Multicollinearity was tested using Variance Inflation Factor (VIF). VIF helps quantify the extent to which the variance of an estimated regression coefficient is increased due to multicollinearity. The results were as shown in Table 1.

As shown in Table 1, all the predictors (Retained earnings, share capital, members' contribution and accruals) had VIF values close to 1, suggesting minimal multi-collinearity among the independent variables. The mean VIF across all variables was 1.06, corroborating the notion that multi-collinearity was not a significant concern in the regression analysis.

Table 2: Correlation Matrix

	Statistic	df	Sig.
Standardized Residual	.128	46	.059

According to the results in Table 2, the p-value is 0.059 which is greater than 0.05 hence we fail to

Descriptive Statistics of the Variables

Descriptive analysis was done on secondary data obtained from the annual reports and financial statements of the 47 registered individual pension schemes.

Table 3: Retained Earnings Structure Summary

	Year	Mean	Std. Deviation
Retained Earnings Proportion	2020	0.4631	1.0491
	2021	0.3302	1.1338
	2022	0.3945	0.5837
	2023	.21183	0.4529

Table 3 presents descriptive results of retained earnings in terms of means and standard deviations. The analysis of retained earnings proportions in pension schemes over the years 2020 to 2023 reveals a general decline in the proportion of earnings retained. In 2020, pension schemes retained an average of 46.31% of their earnings, the highest among the four years. However, this proportion dropped to 33.02% in 2021, indicating a shift toward reduced retention of funds. Although there was a slight recovery in 2022, with retained earnings increasing to 39.45%, the downward trend resumed in 2023, where only 21.18% of earnings were retained, the lowest in the observed period.

Normality Test

For a linear regression, it is assumed that the error terms (residuals) have to be normally distributed. To check this assumption, the null hypothesis was that the errors are normally distributed and the alternative hypothesis is that the errors are not normally distributed.

reject the null hypothesis. Therefore, the normality assumption was not violated.

Retained Earnings Structure

The first objective of the study was to determine the relationship between retained earnings and Return on assets of pension funds in Kenya. Results are presented in Table 3.

The variability in retained earnings, as indicated by the standard deviation, was quite high in 2020 at 1.0491 and increased further in 2021 to 1.1338, suggesting significant differences in how various pension schemes managed their retained earnings. However, in 2022, the standard deviation decreased to 0.5837, and in 2023, it dropped further to 0.4529. This decline in variability suggests that pension schemes became more uniform in their approach to retaining earnings over time.

Share Capital Structure

The second objective of the study was to examine the relationship between share capital and Return on assets of pension funds in Kenya. Results are presented in Table 4.

Table 4: Share Capital Structure Summary

	Year	Mean	Std. Deviation
Share Capital Proportion	2020	0.2884	.9735
	2021	0.7119	1.0162
	2022	0.5731	0.6001
	2023	0.3255	0.5722

Table 4 presents descriptive results of share capital proportion in terms of means and standard deviations. In 2020, pension funds had an average share capital proportion of 28.84%, with a standard deviation of 0.9735, suggesting significant variation among different schemes. In 2021, there was a substantial increase, with the proportion rising to 71.19%, the highest in the observed period. However, the variability remained high, with a standard deviation of 1.0162, reflecting differing financing strategies among pension funds. By 2022, the share capital proportion declined to 57.31%, showing a shift away from high reliance on share capital. The standard deviation also decreased to 0.6001, indicating that pension funds were adopting

a more uniform approach in their financing structures. In 2023, the proportion further dropped to 32.55%, accompanied by a lower standard deviation of 0.5722, suggesting that pension funds had become more consistent in their financing strategies. Overall, while 2021 saw a peak in the use of share capital, the subsequent decline in 2022 and 2023 suggests a shift toward alternative financing mechanisms.

Members Contribution Structure

The third objective of the study was to determine the relationship between members' contribution and Return on assets of pension funds in Kenya. Results are presented in Table 5.

Table 5: Members Contribution Structure Summary

	Year	Mean	Std. Deviation
Member Contribution Capital Proportion	2020	0.1926	.3313
	2021	0.2035	.3558
	2022	0.2173	0.3212
	2023	0.3061	0.4102

Table 5 presents descriptive results of member contribution proportion in terms of means and standard deviations. The proportion of member contributions in the capital structure of pension schemes has shown a gradual increase from 2020 to 2023, indicating a growing reliance on member contributions as a financing source. In 2020, the mean proportion of member contributions stood at 19.26%, with a standard deviation of 0.3313, suggesting moderate variability across pension schemes. In 2021, the proportion slightly increased to 20.35%, accompanied by a higher standard deviation of 0.3558, indicating a slight rise in differences among schemes.

By 2022, the member contribution proportion rose further to 21.73%, while the standard deviation decreased to 0.3212, implying a more consistent approach across schemes. In 2023, there was a more significant increase to 30.61%, the highest in the period, with a standard deviation of 0.4102, showing increased variability in how different pension schemes relied on member contributions.

Accruals Structure

The fourth objective of the study was to examine the relationship between accruals and Return on assets of pension funds in Kenya. Results are presented in Table 6.

Table 6: Accruals Structure Summary

	Year	Mean	Std. Deviation
Proportion of Accruals	2020	0.0897	.2109
	2021	0.1422	.2584
	2022	0.0973	.1958
	2023	0.0886	.1837

The results in Table 6 shows that the proportion of accruals in the capital structure of pension schemes has remained relatively low over the years 2020 to 2023, with slight fluctuations. In 2020, the mean proportion of accruals was 8.97%, with a standard deviation of 0.2109, indicating moderate variation among pension schemes. In 2021, there was an increase to 14.22%, the highest in the observed period, with a higher standard deviation of 0.2584, suggesting greater differences in how schemes incorporated accruals into their financing structures.

However, in 2022, the proportion declined to 9.73%, while the standard deviation dropped to 0.1958, indicating reduced reliance on accruals and

more uniformity across schemes. This downward trend continued in 2023, where the proportion further decreased to 8.86%, with the lowest variability (standard deviation of 0.1837) over the four-year period. Overall, the results show that while 2021 registered a temporary increase in accruals, pension schemes have generally maintained a low and declining reliance on this funding source.

Panel Regression Analysis

The study adopted a panel regression model in assessing the effect of financing structure on financial performance of individual pension schemes in Kenya.

Table 7: Overall Financial Structure Regression Model Results

	Coefficients	Standard Error	t Stat	Prob.
Intercept	1.345171	0.281574	4.777318	0.000
Retained Earnings	0.050272	0.010188	4.934257	0.000
Share Capital	1.69E-10	3.96E-11	4.272936	0.000
Member Contribution	2.17E-09	8.94E-10	2.427969	0.016
Accruals Proportion	1.48E-08	6.68E-09	2.215826	0.027
R-Squared	.2115			
Adjusted R-squared	.2014			
F-statistic	18.2063			
Prob(F-statistic)	0.001			

The results in Table 7 present the fitness of model used of the regression model in explaining the study phenomena. The independent variables were found to be satisfactory in explaining financial performance (ROA). This is supported by coefficient of determination also known as the R square of 21.2 percent. This implies that 21.2% variation in Return on Assets is accounted for by independent variables.

Table 7 provides the results on the analysis of variance (ANOVA). The results indicate that the model was statistically significant. Further, the

results imply that the independent variables are a good predictor of financial performance. This was supported by an F statistic of 18.2063 and a p value (0.000) which was less than the conventional probability of 0.05 significance level.

Regression of coefficients results in table 7 shows that retained earnings with a coefficient of 0.0503 suggests that a one-unit increase in retained earnings is associated with a 5.03% increase in the dependent variable, holding all other variables constant. On share capital structure, the coefficient of 1.69E-10 is very small, suggesting that share

capital has only a marginal positive impact on the dependent variable. The coefficient of member contribution is $2.17E-09$ which suggests that member contributions have a small but positive effect on the dependent variable. On accruals, the coefficient of $1.48E-08$ suggests that an increase in accruals proportion has a positive effect on the return on assets.

Discussion of Key Findings

The first objective of the study was to establish the effect of retained earnings on financial performance of individual pension funds in Kenya. Regression of coefficients results in table 7 shows that retained earnings and performance (ROA) are positively and significantly related ($r=0.050272$, $p=0.000$). This finding agrees with Edom and Aganyi (2015) conclusion that accumulated profit retained in the business has the potential of boosting future earnings. On hypothesis testing, since the p-value is less than conventional 0.05, null hypothesis that there is no significant effect of retained earnings on financial performance of individual pension funds in Kenya is, therefore, rejected.

The second objective sought to determine the effect of share capital on financial performance of individual pension funds in Kenya. Regression of coefficients results in table 7 shows that share capital and performance (ROA) are positively and significantly related ($r=1.69E-10$, $p=0.000$). The results agree with Mwenda, (2011) who also concluded that core capital is linearly related with profitability as measured using Return on Equity (ROE) across all the three tiers of banks, tier group one, tier group two and tier group three used in the study. On hypothesis testing, since the p-value is less than conventional 0.05, null hypothesis that there is no significant effect of share capital on financial performance of individual pension funds in Kenya is, therefore, rejected.

The third objective sought to examine the effect of members' contribution on financial performance of individual pension funds in Kenya. Regression results further indicates that amount of contributions and performance (ROA) are positively

and significantly related ($r=2.17E-09$, $p=0.0158$). Also, this result concurs with those of Okeyo (2016) who asserted that the density of contributions that pension funds receive from the contributors is a very important determinant of their performance. On hypothesis testing, since the p-value is less than conventional 0.05, null hypothesis that there is no significant effect of members' contribution on financial performance of individual pension funds in Kenya is, therefore, rejected.

The fourth objective of the study was to determine the effect of accruals on financial performance of individual pension funds in Kenya. It was established that accruals and performance (ROA) are positively and significantly related ($r=1.48E-08$, $p=0.0274$). This result agrees with the findings of Bloomfield, Gerakos and Kovrijnykh (2015) who estimated the firm-level rate at which working capital accruals convert into future cash flows. On hypothesis testing, since the p-value is less than conventional 0.05, null hypothesis that there is no significant effect of accruals on financial performance of individual pension funds in Kenya is, therefore, rejected.

CONCLUSIONS

The study concludes that there is positive and statistically significant relationship between retained earnings and financial performance of individual pension funds in Kenya. Retained earnings are therefore critical component of financing structure for individual pension schemes.

The study concluded that there is a positive and significant association between share capital and financial performance of individual pension funds in Kenya. The implication of the finding is that share capital is essential in boosting profitability of individual pension schemes in Kenya. Share capital is therefore an important element of the Pension funds' financing structure.

The study concluded that there is a positive and significant association between amount of contributions and financial performance of individual pension funds in Kenya. It also

established that there is positive and statistically significant relationship between amount of contributions and performance of individual pension schemes. The implication of the finding is that amount of contributions by members are paramount in increasing return on assets of Pension Funds in Kenya. Member's contributions are therefore important part of the Pension funds' financing structure.

The study concluded that there is a positive and significant association between accruals and financial performance of the individual pension funds in Kenya. The implication of the finding is that accruals are vital in enhancing profitability of individual pension funds in Kenya. As such, accruals are critical component of financing structure for individual pension funds in Kenya.

RECOMMENDATIONS

The study recommends that pension funds should develop sustainable retention strategies to ensure financial stability. Policymakers may consider incentives for higher retained earnings, such as tax benefits or regulatory frameworks that encourage reinvestment of surpluses. Additionally, funds

should optimize their investment returns to support long-term fund sustainability.

It is recommended that pension funds should strike a balance between share capital and other funding sources to enhance financial stability. Regulators should assess whether policies affecting share capital levels encourage sustainable growth. Encouraging diversified investment portfolios may also reduce over-reliance on share capital.

Pension funds should enhance member engagement and contribution incentives to sustain growth. Policymakers should strengthen enforcement of mandatory contributions to ensure consistent funding. Financial literacy programs should also be introduced to encourage higher voluntary contributions for long-term retirement security.

Pension funds should explore alternative financing mechanisms to supplement retained earnings, share capital, and member contributions. Financial innovation, such as structured long-term investments, may provide more stable funding options. Additionally, schemes should ensure efficient liability management to minimize excessive reliance on accruals.

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