# Zamara Consulting Actuaries Schemes Survey

March 2023





### Introduction

We are pleased to present our 69<sup>th</sup> Investment Performance Survey for the period ending 31 March 2023.

This Survey covers 426 schemes with a total of K Shs 1.05 trillion of assets under management.

We acknowledge and thank each of the participating Fund Managers for providing the necessary asset and performance data in a timely manner.

Fund Manager	Number of Participating Schemes	Value of Assets Under Management ( KShs m)
African Alliance Kenya Investment Bank Limited	7	
Apollo Asset Managers	1	
British American Asset Managers	18	
CIC Asset Managers	11	
Co-op Trust Investments	61	
Cytonn Asset Managers	3	
GenAfrica Asset Managers	97	
ICEA Lion Asset Management Limited	58	
NCBA Investment Bank Limited	3	
Old Mutual Investment Group Limited	89	
Sanlam Investments East Africa Limited	78	
Subtotal	426	1,049,164

Some schemes did not qualify to be included in the Survey. This was due to one or more of the following reasons:

- Incomplete data.
- Data received did not pass sense checks.
- Responses to queries were not received as at the date of issuing this report.

### Market Commentary Q1 2023



**General Economic Review**: The economic activity is estimated to have decelerated in the first quarter of 2023 as the Stanbic Bank Kenya Purchasing Manager Index stood at 49.2 in March 2023 compared to 51.6 at the end of the previous quarter. Readings above 50.0 signal an improvement in business conditions, while readings below 50.0 show a deterioration.

**Inflation:** Overall inflation rate averaged 9.2% at the end of the quarter compared to 9.1% at the end of the previous quarter. The elevated inflation was caused by high prices for fuel and food items. The depreciation of the Shilling against the dollar has put pressure on the cost of living due to more expensive imports like fuel.

**Currency Market:** The Kenya Shilling depreciated by 6.8% during the quarter against the U.S. Dollar to close at K Shs 132.3 from K Shs 123.4 at the end of the previous quarter. The Shilling has been depreciating amid the aggressive rise of U.S. interest rates to tame inflation since last year, leading to an appreciation of the dollar and sustained shortage in the local market.

Index	Q1	1 yr	3 yr³	5yr <sup>3</sup>
NASI	(11.5%)	(27.6%)	(5.1%)	(10.0%)
Zamara Kenya Equity Index	(1.9%)	(4.7%)	7.4%	(2.3%)
NSE 25 Share Index	(5.2%)	(16.8%)	(1.6%)	(9.8%)
S&P Kenya Sovereign Bond Index	2.2%	8.9%	10.1%	11.8%
91 Day Tbill	2.3%	8.7%	7.5%	7.4%
Inflation CPI K Shs	1.7%	9.2%	7.2%	6.0%
USD/K Shs <sup>1</sup>	(6.8%)	(13.1%)	(7.5%)	(5.3%)
MSCI ACWI Index <sup>2</sup>	14.6%	4.6%	22.7%	10.9%
MSCI Emerging Markets <sup>2</sup>	11.1%	(0.2%)	13.8%	2.1%
MSCI World Index <sup>2</sup>	15.0%	5.3%	24.0%	12.1%

- Negative implies Shilling depreciated, positive implies Shilling appreciated.
- 2. Returns are Kenya Shilling adjusted
- For periods more than 1-year; returns are annualized
- 4. All values are as at 31 March 2023

Source: NSE, CBK, MSCI, KNBS

**Equity Market:** The year-to-date performance (YTD) for NASI, NSE 25, and Zamara Kenya Equity Index (ZKEI) remained in the red, With NASI having the biggest fall at a drop of 11.5% and the NSE 25 and the ZKEI posting YTD losses of 5.2%, and 1.9%, respectively. NASI was affected more by the fall in the share price of the market's largest listed firm Safaricom, which dropped by 25.1%.

Equity performance was mainly driven by foreign investors exiting the markets due to interest rate hikes in developed markets and continued concerns about macroeconomic conditions.

**Fixed Income:** The Monetary Policy Committee increased the Central Bank Rate (benchmark interest rate for the market) by 0.75% to 9.50% at the end of the quarter, citing sustained inflationary pressures, elevated global risks, and their potential impact on the domestic economy. The increase was the fourth rate rise in the last six monetary policy meetings, totaling 2.5% of increases since May 2022.

The average yields on short-term government debt instruments took an upward trajectory day, 182-day, and 91-day T-bills averaging 10.6%, 10.0%, and 9.6%, respectively, during the quarter.

The S&P Kenya Sovereign Bond Index gained 2.2% over the quarter, compared to 2.5% in December 2022.

Offshore markets: Global equity markets recorded gains over the quarter, buoyed by receding recession worries in developed markets. Gains came despite the collapse of Silicon Valley Bank in the USA, which caused significant volatility in bank shares. The Emerging Markets Index, the All Country World Index, and the All-World Index gained 4%, 7%, and 7%, respectively, in USD terms. The Federal Reserve raised its reference interest rate by 0.25% to a target range of between 4.75% and 5%.



## **Executive Summary and Key Highlights**

### **Key Highlights**

In the table below, we set out a summary of the median performance of schemes for each of the years from 31 March 2014 to 31 March 2023.

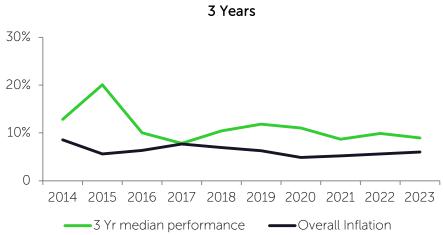
Period Ending 31 March	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of Schemes Participating	126	317	373	379	389	417	415	421	430	426
Total Assets K Shs Bn	224.6	490.4	535.3	582.5	717.9	808.3	852.4	969.2	1051.2	1,049.2
1 Yr Median performance	15.9%	14.9%	1.4%	7.8%	22.6%	5.6%	5.7%	14.2%	9.2%	3.5%
3 Yr Median performance	12.8%	20.1%	10.0%	7.8%	10.4%	11.8%	11.0%	8.7%	9.9%	9.0%
Overall 1 year Inflation <sup>1</sup>	6.3%	6.3%	6.5%	10.3%	4.2%	4.3%	6.1%	5.9%	5.6%	9.2%
Overall 3 year Inflation <sup>2</sup>	8.6%	5.6%	6.3%	7.7%	6.9%	6.2%	4.9%	5.2%	5.6%	7.2%

#### Notes:

- 1. Based on KNBS Statistics 2014 2023: www.knbs.or.ke/
- 2. Calculated geometric average over 3 years.

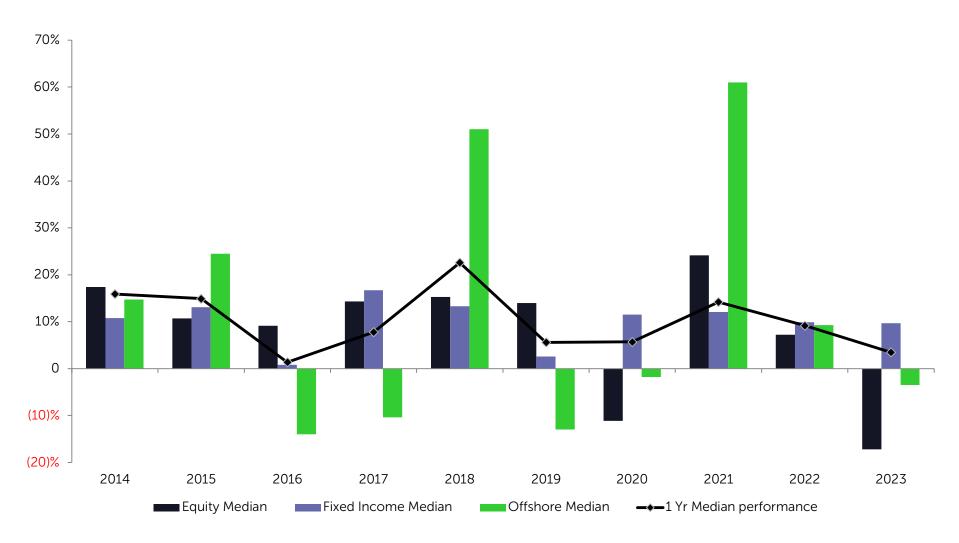
The Survey indicates that the median scheme returns underperformed inflation in 2016, 2017, 2020 and 2023, as shown in the 1-year chart below. Over 3-years, median returns have outperformed inflation in all periods as shown in the 3-year chart below.







# **Executive Summary and Key Highlights**



The chart above shows the median performance trend of the three asset classes (equity, fixed income and offshore) as at 31 March for each of the last 10 years.

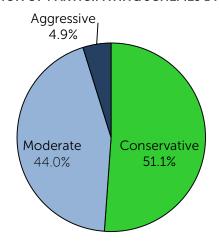
## **Risk Profile of Participating Schemes**



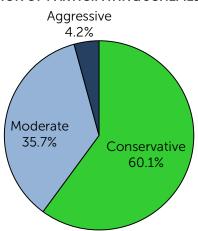
		STAT	ISTICS		
Risk Profile	Fixed Income Allocation*	Number of Schemes	Assets Under Management K Shs m*	Asset Percentage %	
Conservative	Over 80%	256	60.1%	483,068	51.1%
Moderate	65% to 80%	152	35.7%	415,694	44.0%
Aggressive	Less than 65%	18	4.2%	45,974	4.9%
Total		426	100.0%	944,736	100.0%

<sup>\*</sup>Asset allocation shown above and used to determine the above profiles excludes property

### DISTRIBUTION OF PARTICIPATING SCHEMES BY ASSET SIZE



### DISTRIBUTION OF PARTICIPATING SCHEMES BY NUMBER



426 Schemes qualified for inclusion in the Survey on the basis of being segregated arrangements with at least 3 months return periods.

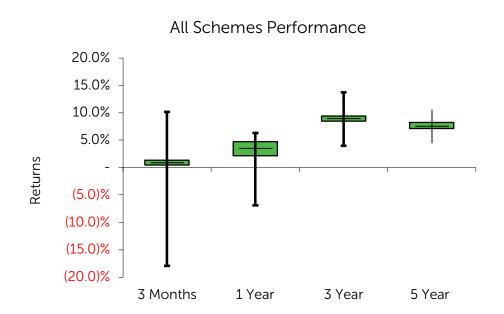
The survey is dominated by conservative schemes; they comprise 60.1% of participating schemes and manage 51.1% of assets in this survey.

## Analysis and Distribution of Returns for the Period



	3 Month	1 year	3 year*	5 year*
25th Percentile	0.4%	2.1%	8.5%	7.1%
Median	0.9%	3.5%	9.0%	7.6%
75th Percentile	1.3%	4.7%	9.4%	8.2%
Range of Returns	8.5%	28.1%	13.2%	9.8%
Average	0.9%	3.7%	8.9%	7.7%
Weighted Average	0.8%	3.1%	8.8%	7.4%

<sup>\*</sup>Annualised return



Over the quarter ended 31 March 2023, the median return of the participating schemes was 0.9%, compared to 2.3% in December 2022. Performance in the first quarter of 2023 was negatively impacted by inflationary pressures and ongoing geopolitical tensions.

Over the 1-year period to 31 March 2023, the median return of the participating schemes was 3.5% compared to 9.2% over a similar period in 2022.

Over the 3-year period to 31 March 2023, the median return of the participating schemes was an annualized 9.0%.

Over the 5-year period to 31 March 2023, the median return of the participating schemes was an annualized 7.6%.

The box plots on the next page show our analysis of the median and range of returns of the participating schemes categorized by risk profile: conservative, moderate and aggressive schemes.

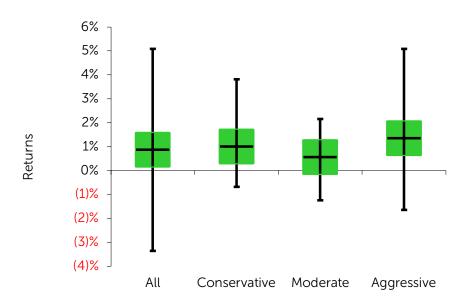
# **Analysis and Distribution of Returns**



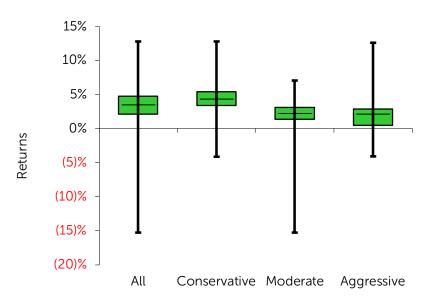
						Return [	Distribution						
		Conservati	ive Schemes			Moderate	Schemes			Aggressive	Schemes		
	3 Month	1 year	3 year*	5 year*	3 Month)	1 year	3 year*	5 year*	3 Month	1 year	3 year*	5 year*	
25th Percentile	0.7%	3.4%	8.7%	7.4%	0.2%	1.4%	8.3%	6.9%	0.4%	0.4%	8.4%	6.7%	
Median	1.0%	4.3%	9.2%	8.1%	0.6%	2.2%	8.7%	7.2%	1.1%	1.2%	8.6%	7.3%	
75th Percentile	1.6%	5.4%	9.6%	8.5%	1.0%	3.1%	9.1%	7.6%	2.3%	3.1%	10.1%	7.7%	
Range of Returns	4.5%	17.0%	8.5%	9.8%	3.4%	22.4%	11.6%	4.9%	6.7%	16.7%	8.1%	3.7%	
Average	1.1%	4.7%	9.1%	8.1%	0.6%	2.2%	8.6%	7.2%	1.5%	2.6%	8.8%	7.0%	
Weighted Average	1.0%	4.2%	9.1%	8.1%	0.5%	2.1%	8.5%	7.0%	1.5%	1.3%	9.1%	7.0%	

<sup>\*</sup>Annualised return

### **Three Months Performance**



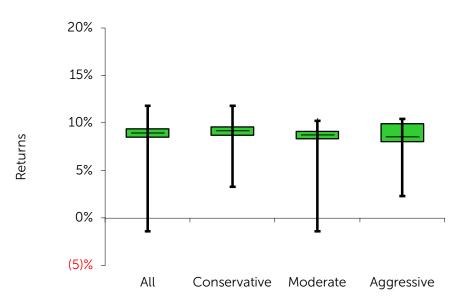
### **One Year Performance**



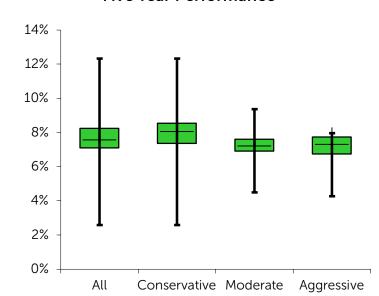
### **Analysis and Distribution of Returns**







### **Five Year Performance**



Aggressive schemes posted the highest median return over the quarter despite the low performance of local equities as offshore equities recorded gains over the period.

Returns

Conservative schemes posted the highest median returns over the long term as Quoted Equities and Offshore asset classes suffered losses during these time periods.

# Asset Class Returns for 3 Months Ending 31 March 2023

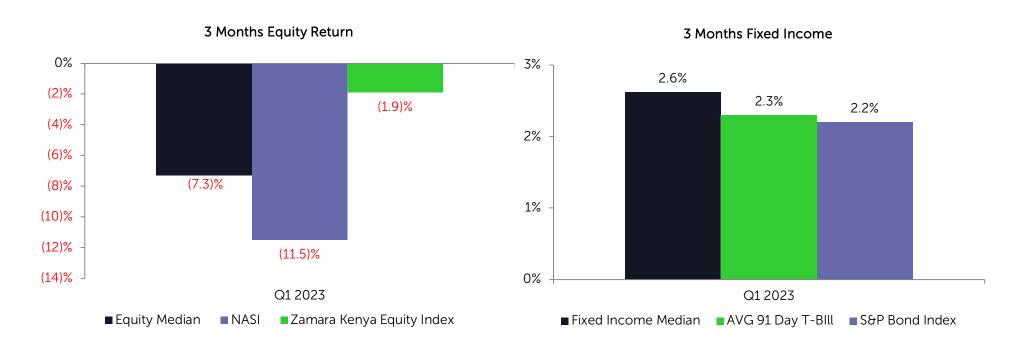


	Equity	Fixed Income	Offshore		
	Equity	TIXEG ITTESTITE	011311010		
25th Percentile	(8.5)%	2.5%	15.6%		
Median	(7.3)%	2.6%	17.2%		
75th Percentile	(5.9)%	2.7%	19.4%		
Range of Returns	35.5%	3.7%	30.8%		
Average	(7.1)%	2.6%	16.8%		
Weighted Average	(7.2)%	2.6%	16.1%		

**Equity**: The equity median return underperformed Zamara Kenya Equity Index, while outperforming NASI.

**Fixed Income**: The fixed income median return outperformed the 91 Day Treasury Bill and the average S&P Bond Index.

**Offshore:** The offshore median return outperformed MSCI Emerging, MSCI ACWI indices and the MSCI world Index.





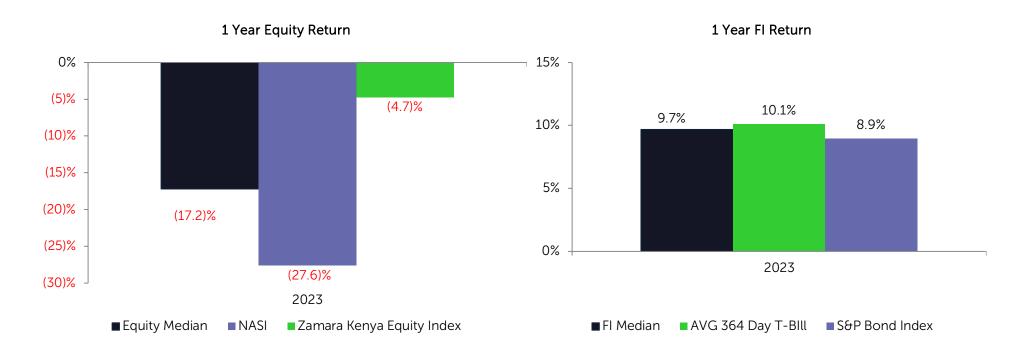


	Equity	Fixed Income	Offshore		
25th Percentile	(19.3)%	9.3%	(6.9)%		
Median	(17.2)%	9.7%	(3.5)%		
75th Percentile	(14.3)%	10.0%	1.7%		
Range of Returns	52.0%	10.0%	39.3%		
Average	(16.6)%	9.7%	(1.6)%		
Weighted Average	(16.4)%	9.6%	0.3%		

**Equity**: The equity median return outperformed NASI, while underperforming the Zamara Kenya Equity Index.

**Fixed Income**: The fixed income median return underperformed the average 364 Day Treasury Bill while outperforming the S&P Bond index.

**Offshore**: The offshore median return underperformed the MSCI ACWI, MSCI world and MSCI Emerging Indices.





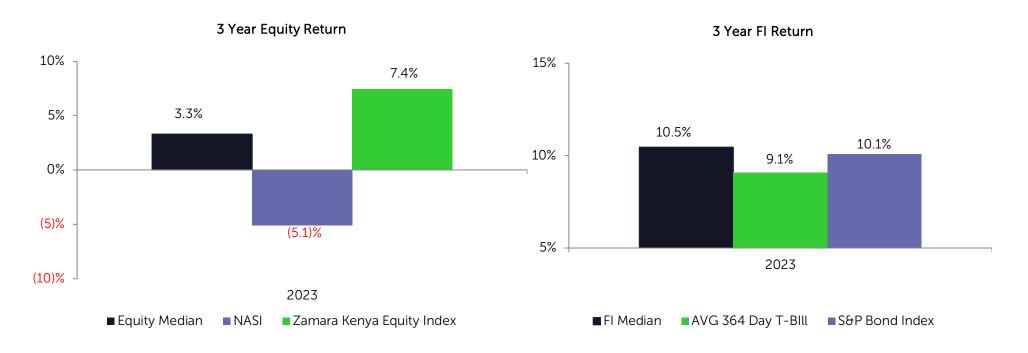
## Asset Class Returns for 3 Years Ending 31 March 2023

	Equity	Fixed Income	Offshore		
25th Percentile	2.3%	10.2%	12.9%		
Median	3.3%	10.5%	17.6%		
75th Percentile	4.3%	10.7%	21.3%		
Range of Returns	28.2%	9.9%	36.4%		
Average	3.3%	10.4%	14.9%		
Weighted Average	3.2%	10.5%	19.1%		

**Equity**: The equity median return outperformed the NASI while underperforming the Zamara Kenya Equity Index.

**Fixed Income:** The fixed income median return outperformed the average 364 Day Treasury Bill and the S&P Bond Index.

**Offshore:** The offshore median return out-performed MSCI Emerging index but underperformed the MSCI world and MSCI ACWI Indices.





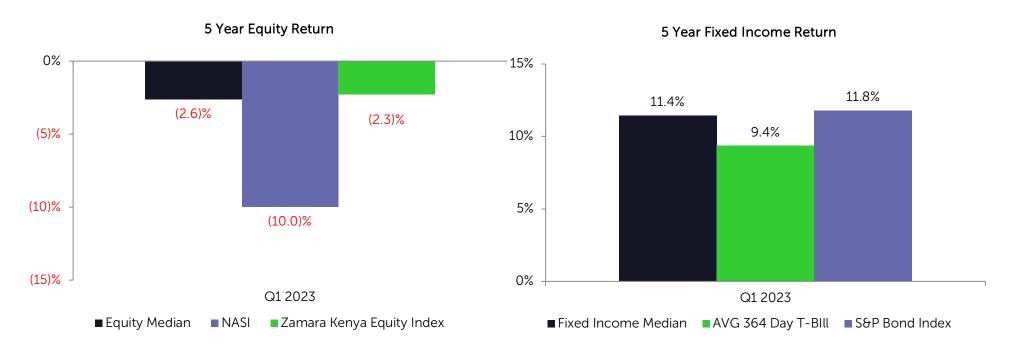
### Asset Class Returns for 5 Years Ending 31 March 2023

	Equity	Fixed Income	Offshore		
25th Percentile	(3.7)%	11.2%	7.5%		
Median	(2.6)%	11.4%	11.2%		
75th Percentile	(0.9)%	11.8%	12.6%		
Range of Returns	29.3%	6.2%	25.8%		
Average	(1.9)%	11.4%	9.8%		
Weighted Average	(1.5)%	11.5%	10.7%		

**Equity**: The equity median return outperformed the NASI while underperforming the Zamara Kenya Equity Index.

**Fixed Income**: The fixed income median return outperformed the average 364 Day Treasury Bill but underperformed the S&P Bond Index.

**Offshore**: The offshore median return out-performed MSCI Emerging and MSCI ACWI indices but underperformed the MSCI World index.





# Analysis of Asset Allocation for the Period Ending 31 March 2023

	Asset Class Allocation																
	All Schemes					Conservative Schemes				Moderate Schemes				Aggressive Schemes			
	Equity	Fixed Income	Property	Offshore	Equity	Fixed Income	Property	Offshore	Equity	Fixed Income	Property	Offshore	Equity	Fixed Income	Property	Offshore	
Average	15.8%	76.2%	5.7%	2.2%	13.0%	81.6%	5.0%	0.4%	19.9%	71.3%	5.9%	2.8%	19.9%	44.3%	23.6%	12.3%	
Weighted Average	16.4%	72.0%	9.9%	1.8%	13.0%	78.2%	8.2%	0.5%	19.3%	68.7%	9.4%	2.6%	17.4%	40.2%	34.5%	7.9%	
Range of Allocation	49.0%	99.9%	98.2%	57.5%	20.0%	98.2%	98.2%	7.6%	25.4%	61.6%	77.0%	11.0%	49.0%	59.0%	91.7%	57.5%	
Median	16.7%	80.2%	-	-	14.5%	82.8%	-	-	17.8%	70.7%	-	2.9%	18.4%	47.5%	11.8%	5.2%	

For comparison, we include the asset allocation figures as shown in our December 2022 report.

	Asset Class Allocation																
	All Schemes					Conservative Schemes				Moderate Schemes				Aggressive Schemes			
	Equity	Fixed Income	Property	Offshore	Equity	Fixed Income	Property	Offshore	Equity	Fixed Income	Property	Offshore	Equity	Fixed Income	Property	Offshore	
Average	18.1%	75.6%	5.2%	1.1%	12.7%	83.1%	3.9%	0.3%	22.3%	70.5%	5.7%	1.5%	30.1%	47.1%	19.0%	3.8%	
Weighted Average	18.8%	69.4%	10.5%	1.3%	12.3%	78.3%	9.1%	0.3%	21.8%	67.9%	8.8%	1.5%	26.1%	41.3%	27.2%	5.4%	
Range of Allocation	52.5%	96.3%	88.2%	11.5%	19.9%	89.3%	87.2%	6.1%	27.7%	54.7%	67.8%	6.2%	44.5%	61.1%	88.2%	11.5%	
Median	18.1%	75.6%	-	-	14.9%	83.5%	-	-	20.2%	68.5%	-	1.2%	29.4%	51.3%	11.7%	3.8%	

21.6% of the Schemes participating in the Survey had an allocation to property.

37.8% of the Schemes participating in the Survey had an allocation to offshore assets.

The Survey indicates that the average scheme's exposure to fixed income and offshore increased while allocation to equities decreased over the quarter.

# **Historical Economic Indicators**



	Mar-2023	Mar-2022	Mar-2021	Mar-2020	Mar-2019	Mar-2018	Mar-2017	Mar-2016	Mar-2015	Mar-2014	Mar-2013
Exchange Rates	Mar-2025	Mar-2022	Mar-2021	Mar-2020	Mar-2019	Mai-5018	Mar-2017	Mar-2010	Mar-2012	Mar-2014	Mar-2013
KES/ USD	131.2	114.95	109.51	104.69	100.75	100.85	103.00	101.33	92.34	86.44	85.64
Inflation											
Headline	9.2%	5.6%	5.9%	5.3%	4.3%	4.2%	10.3%	6.5%	6.3%	6.3%	4.1%
Food	13.4%	9.9%	6.7%	10.6%	2.8%	2.2%	18.6%	9.4%	11.0%	8.3%	2.9%
Non-food	7.5%	4.9%	4.0%	2.6%	8.2%	9.0%	2.5%	3.5%	2.9%	4.4%	4.8%
Interest Rates											
Central Bank Rate	9.5%	7.0%	7.0%	7.3%	9.0%	9.5%	10.0%	11.5%	8.5%	8.5%	8.5%
Interbank Rate	6.4%	5.0%	5.5%	5.2%	2.6%	6.1%	3.9%	3.8%	8.3%	7.3%	8.4%
Lending Rate			6.5%	7.1%	7.2%	8.2%	7.1%	7.2%	6.6%	6.6%	6.5%
Government Securities Yields											
AVG 91 Day T-Bill	8.8%	7.0%	6.8%	6.9%	7.5%	8.3%	8.2%	11.0%	8.8%	9.0%	10.2%
AVG 182 Day T-Bill	9.5%	7.7%	7.4%	7.7%	9.1%	10.4%	10.4%	12.6%	9.7%	9.6%	10.9%
AVG 364 Day T-Bill	10.1%	8.7%	8.3%	9.8%	10.1%	11.0%	11.1%	13.3%	10.5%	10.6%	12.3%
Stock Market Indices											
NASI	(27.6)%	(1.8)%	20.2%	(16.3)%	(17.6)%	46.5%	(11.5)%	(15.8)%	21.7%	22.0%	60.5%
ZKEI	(4.7)%	10.5%	17.7%	(14.7)%	(15.8)%	54.1%	(10.8)%	(14.6)%	28.9%	15.3%	
MSCI World KES	5.3%	14.0%	45.1%	(8.7)%	2.1%	9.1%	14.3%	3.9%	11.1%	17.8%	12.7%
MSCI ACWI KES	4.6%	10.9%	45.5%	(9.6)%	0.7%	10.3%	14.6%	2.9%	10.4%	15.2%	11.4%
MSCI Emerging KES	(0.2)%	(9.0)%	48.3%	(16.7)%	(9.4)%	19.5%	16.4%	(5.8)%	4.7%	(2.8)%	2.2%
Bond Indices											
FTSE Bond Index	-	10.1%	13.1%	12.3%	16.0%	17.8%	14.2%	8.6%	10.2%	16.6%	
S&P Sovreign Bond Index	8.9%	10.4%	10.9%	13.7%	15.5%	6.5%	13.8%	7.6%	9.9%	16.8%	
oor borreigh borna mack	0.570	10.170	10.570	10.770	10.070	0.070	10.070	7.070	3.570	10.070	



# Zamara Consulting Actuaries Schemes Survey FAQs

### What is the Z - CASS Survey?

The Z - CASS Survey is an industry first initiative of Zamara Actuaries, Administrators and Consultants Limited and analyses the returns of retirement schemes invested in segregated vehicles with both discretionary and non-discretionary mandates. Schemes invested on an insured deposit administration basis are excluded as well as schemes having incomplete performance periods or returns.

### What does the Consulting Actuaries Schemes Survey mean to a trustee?

One of the benefits of having a scheme based Survey is that retirement scheme trustees are given the opportunity to compare the performance of their scheme relative to their peers within the broader retirement scheme industry. The Survey considers the returns over a rolling one (1) three (3) year and five (5) year period and trustees can gain valuable insight into how similar sized schemes performed over the same period.

The Survey further analyses the allocation across four broad asset classes: equity, fixed income, property and offshore. The asset class allocation analysis is based on a point in time, which corresponds with the Survey reporting period. The benefit of this is that trustees can gain valuable insight into how similar sized schemes are invested and how asset class allocation contributed to their specific scheme's performance. Attribution performance for property asset class was unavailable from the data provided and hence excluded from the Survey.

### Important issues to be aware of

The Survey is based on individual scheme returns rather than fund manager performance. Trustees also need to be aware that the schemes in the Survey differ in terms of their risk profiles, investment mandates and fund manager reporting bases (as a consequence of the absence of a uniform reporting basis by the fund managers). These factors may have an impact on the reported performance. It should also be noted that performance should not be assessed over the short-term and past performance is not necessarily a guide to future performance.

For specific Consulting Actuaries Schemes Survey queries, contact:

Neha Datta at ndatta@zamara.co.ke
Lewis Rapando at lrapando@zamara.co.ke
Cliff Mayaka at cmayaka@zamara.co.ke
Berryl Bunyasi at bunyasib@zamara.co.ke



### **Glossary of Terms**

#### **Annualised**

To convert an investment return into an equivalent one-year rate of return.

#### **Asset Class Allocation**

The allocation of a scheme's assets between different asset classes. i.e. equity, fixed income and interest, property and offshore investments.

#### **Average**

The mean or simple average of the schemes' performance and asset class allocation.

### **Discretionary Investment Mandate**

This refers to the level of freedom (i.e. discretion) given to a fund manager by the trustees to invest the scheme's assets in accordance with the fund manager's best investment view. In many instances broad parameters are set by the trustees but the fund manager has complete autonomy in the investment decision making.

#### Inflation

Inflation is defined as a continued increase in the general level of prices and represents the cost of living index. Overall inflation includes in the 'basket' fuel and food stuffs, while underlying inflation excludes these from the 'basket'.

### Median

The median is the return or weighting of the middle scheme (irrespective of size) when all the schemes' returns and asset allocations are ranked in order of performance or weighting. The median is not skewed by a wide range of returns or asset class weightings.

### Non-Discretionary Investment Mandate

This refers to the degree of prescription to how the scheme's assets are invested and is the opposite of a fully discretionary mandate. The Trustees will be involved in the investment decision making and will instruct the fund manager how and in which assets to invest.

#### Percentile

Or quartile is one quarter of a sample. If returns of a scheme are ranked in a league table, then, for example, a second quartile ranking indicates that 25% of the schemes performed better and 50% achieved a lower return. i.e. the return in the second quarter or 25% of returns.

#### **Performance Attribution**

The composite performance broken down between the asset classes to determine how the respective classes contributed to the overall performance i.e. to which asset classes the performance was attributed.

#### Return

The increase in the value of an investment over a period of time, expressed as a percentage of the value of the investment at the start of the period.

### **Weighted Average**

The mean or average of the schemes weighted according to the size of the assets under management.



### Disclaimer

In preparing this Survey, we have used data supplied by the fund managers of the participating schemes. The data has been checked for reasonability where possible. While all possible care is taken in the compilation of the Survey to ensure that this document is accurate in all material respects, reliance is placed on information received from the fund managers.

Whereas the above constitutes the participating schemes per manager in the Survey, it is not representative of the total schemes under management by the various fund managers

This document has been prepared for use by clients of Zamara Actuaries, Administrators and Consultants Limited Any other third party that is not a client of Zamara Actuaries, Administrators and Consultants Limited and for whose specific use this document has not been supplied, must be aware that Zamara Actuaries, Administrators and Consultants Limited shall not be liable for any damage, loss or liability of any nature incurred by any third party and resulting from the information contained herein. The information contained herein is supplied on an "as is" basis and has not been compiled to meet any third party's individual requirements. It is the responsibility of any third party to satisfy himself or herself, prior to relying on this information that the contents meet the third party's individual requirements.

Nothing in this document, when read in isolation and without professional advice, should be construed as solicitation, offer, advice, recommendation, or any other enticement to acquire or dispose of any financial product, advice or investment, or to engage in any financial transaction or investment. A third party should consult with an authorised financial advisor prior to making any financial decisions.

Zamara has taken all reasonable steps to ensure the quality and accuracy of the contents of this document and encourages all readers to report incorrect and untrue information, subject to the right of Zamara to determine, in its sole and absolute discretion, the contents of this document. Irrespective of the attempts by Zamara to ensure the correctness of this document, Zamara does not make any warranties or representations that the content will in all cases be true, correct or free from any errors. In particular, certain aspects of this document might rely on or be based on information supplied to Zamara by other persons or institutions. Zamara has attempted to ensure the accuracy of such information, but shall not be liable for any damage, loss or liability of any nature incurred by any party and resulting from the errors caused by incorrect information supplied to Zamara.

Reasonable use of the Survey may be made for purposes of comment and study provided that full acknowledgement is made to Zamara Actuaries, Administrators and Consultants Limited.