Zamara Consulting Actuaries Schemes Survey

December 2021





Introduction

We are pleased to present our 64th Investment Performance Survey for the period ending 31 December 2021.

This Survey covers 420 schemes with a total of K Shs 953.1 billion 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	2	
British American Asset Managers	25	
CIC Insurance	7	
Co-op Trust Investments	62	
Cytonn	3	
GenAfrica Asset Managers	95	
ICEA Lion Asset Management Limited	58	
NCBA Investment Bank Limited	2	
Old Mutual Investment Group Limited	83	
Sanlam Investments East Africa Limited	76	
Subtotal	420	953,113

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 Q4 2021



General Economic Review: The Kenyan economy grew at an average of 9.9% in the third quarter of 2021 compared to a contraction of 2.1% during a similar period in 2020. The strong performance was supported by government interventions and easing of Covid-19 restrictions. The Stanbic Purchasing Manager's Index recorded its highest reading in 14 months at 53.7. This indicated improvement in the health of the private sector economy and improving customer demand.

Inflation: Overall inflation declined to 5.7% at the end of the quarter compared to 6.9% the previous quarter. The decrease was attributed to a decrease in fuel prices and a higher base effect.

Currency Market: The Kenya Shilling depreciated by 2.3% during the quarter against the U.S. Dollar to close at Kshs 113.1, from Kshs 110.5 on 30 September 2021. The depreciation is attributable to rising uncertainties in the global market due to the Covid-19 pandemic, as investors continue to prefer holding their investments in dollars and other hard currencies.

Index	Q4	1 yr	3 yr³	5yr ³
NASI	(6.6%)	9.4%	5.8%	4.5%
Zamara Kenya Equity Index	(2.3%)	20.2%	9.2%	8.3%
NSE 25 Share Index	(4.4%)	9.6%	1.8%	1.2%
S&P Kenya Sovereign Bond Index	2.3%	9.8%	12.7%	14.0%
FTSE Bond Performance Index	2.3%	10.3%	12.7%	14.1%
91 Day Tbill	1.7%	7.0%	7.1%	7.6%
Inflation CPI K Shs	1.9%	5.7%	5.3%	5.9%
USD/K Shs ¹	(2.3%)	(3.5%)	(3.4%)	(2.0%)
MSCI ACWI Index ²	3.9%	12.7%	14.2%	10.1%
MSCI Emerging Markets ²	(4.0%)	(7.9%)	4.7%	5.3%
MSCI World Index ²	5.0%	16.3%	15.6%	10.8%

- 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 December 2021

the quarter with NASI & ZKEI losing 6.6% and 2.3% respectively. The equity performance was mainly driven by foreign investors remaining net sellers as investor sentiment was negative due to increased positivity rates owing to the emergence of the new Covid-19 variant.

Fixed Income: The Monetary Policy Committee retained the Central

Equity Market: The equity market was on a downward trajectory during

Fixed Income: The Monetary Policy Committee retained the Central Bank Rate at 7.0%. The committee's assessment in November 2021 cited that the accommodative policy was necessary to strengthen the ongoing recovery of the economy. The average yields for the 364-day, 182-day, and 91-day T-bills increased to 9.4%, 8.1%, and 7.3% during the quarter. The S&P Kenya Sovereign Bond Index gained 2.3% over the quarter compared to 3.5% in September 2021.

Offshore markets: Global equity markets posted mix performance over the quarter as the Emerging Markets Index lost 1.7% while the All Country World Index and All World Index gained 6.4% and 7.5% respectively in USD terms. The losses recorded by the Emerging market index were due to new strict regulations introduced in China that caused increased sell off of tech companies' stocks that has rallied in 2020.

Source: NSE, CBK, MSCI, KNBS





Key Highlights

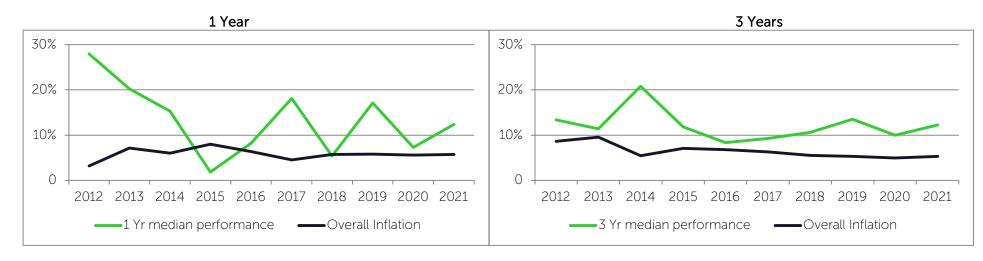
In the table below, we set out a summary of the median performance of schemes for each of the years from 31 December 2012 to 31 December 2021.

Period Ending 31 December	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Number of Schemes Participating	130	127	314	378	384	374	415	419	421	420
Total Assets K Shs Bn	171.8	217.1	479.4	535.8	596.5	677.3	756.9	885.0	951.8	953.1
1 Yr Median performance	28.0%	20.2%	15.3%	1.9%	8.2%	18.1%	5.4%	17.1%	7.3%	12.4%
3 Yr Median performance	13.4%	11.4%	20.8%	11.8%	8.4%	9.3%	10.6%	13.5%	10.0%	12.2%
Overall 1 year Inflation ¹	3.2%	7.1%	6.0%	8.0%	6.4%	4.5%	5.7%	5.8%	5.6%	5.7%
Overall 3 year Inflation ²	8.7%	9.6%	5.4%	7.1%	6.8%	6.3%	5.5%	5.3%	5.0%	5.3%

Notes:

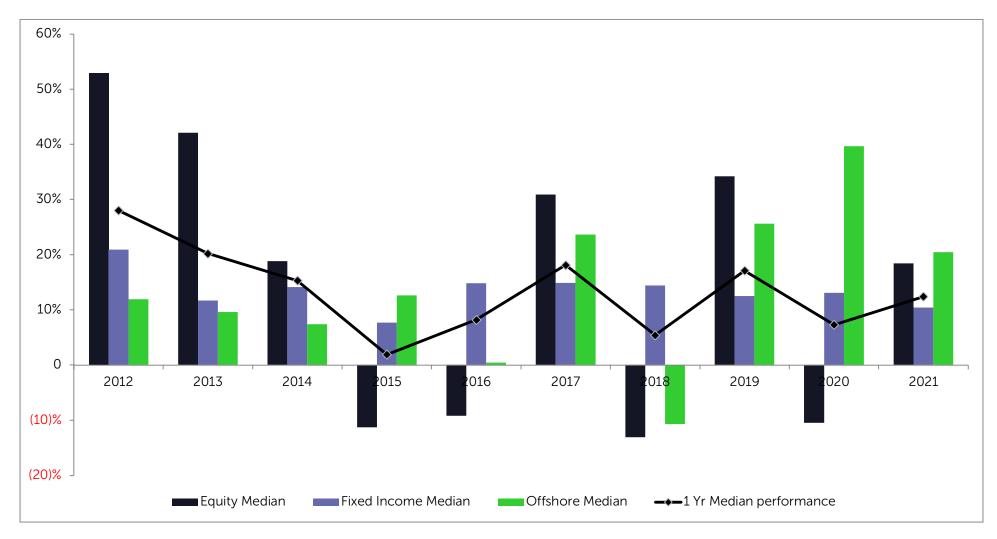
- 1. Based on KNBS Statistics 2012 2021: www.knbs.or.ke/
- 2. Calculated geometric average over 3 years.

The Survey indicates that the median scheme did not always outperform overall inflation over the 1-year. Over 1-year, median returns underperformed inflation in 2015 and 2018, 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 December for each of the last 10 years.

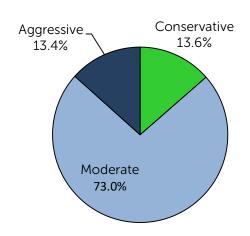
Risk Profile of Participating Schemes



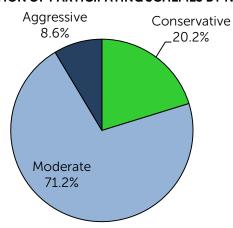
		STAT	ISTICS			
Risk Profile	Fixed Income Allocation*	I Number of Schemes I Scheme Percentage % I				
Conservative	Over 80%	85	20.2%	115,623	13.6%	
Moderate	65% to 80%	299	71.2%	621,582	73.0%	
Aggressive	Less than 65%	36	8.6%	113,728	13.4%	
Total		420	100.0%	850,933	100.0%	

^{*}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



420 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 moderate schemes; they comprise 71.2% of participating schemes and manage 73.0% of assets in this survey.

Conservative schemes make up 20.2% of number of participating schemes with 13.6% of assets under management. Aggressive schemes make up 8.6% of number of participating schemes with 13.4% of assets under management.

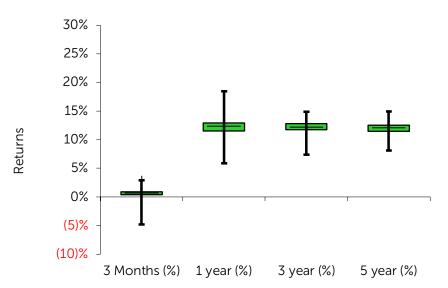
Analysis and Distribution of Returns for the Period



	3 Month	1 year	3 year*	5 year*
25th Percentile	0.4%	11.5%	11.8%	11.4%
Median	0.7%	12.4%	12.2%	12.1%
75th Percentile	0.9%	12.9%	12.8%	12.5%
Range of Returns	7.7%	12.6%	7.5%	6.8%
Average	0.7%	12.2%	12.2%	12.0%
Weighted Average	0.7%	11.8%	12.3%	11.9%

^{*}Annualised return





Over the quarter ended 31 December 2021, the median return of the participating schemes was 0.7%, compared to 3.4% in September 2021. The decline in performance has been attributed to losses in the equities market over the quarter.

Over the 1-year period to 31 December 2021, the median return of the participating schemes was 12.4% compared to 7.3% over a similar period in 2020. Performance in 2021 was positively impacted by the resilience in the equites market and offshore investments. In 2021, the Kenyan equities market recovered to record a growth of 9.4%, compared to an 8.6% decline in 2020 as measured by NASI.

Over the 3-year period to 31 December 2021, the median return of the participating schemes was an annualized 12.2%.

Over the 5-year period to 30 December 2021, the median return of the participating schemes was an annualized 12.1% with a range of returns of 6.8%.

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

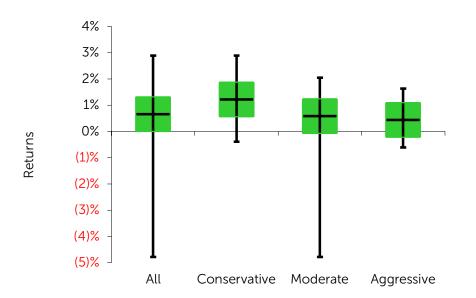
Analysis and Distribution of Returns



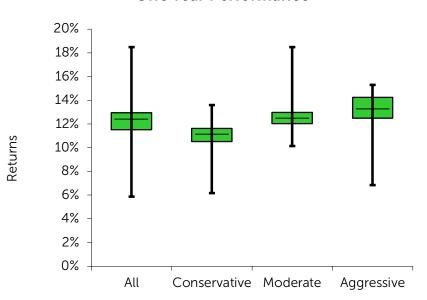
						Return D	Distribution					
		Conservati	ive Schemes			Moderate	Schemes			Aggressive	Schemes	
	3 Month	1 year	3 year*	5 year*	3 Month)	1 year	3 year*	5 year*	3 Month	1 year	3 year*	5 year*
25th Percentile	0.8%	10.5%	11.6%	11.7%	0.4%	12.0%	11.8%	11.4%	0.1%	12.5%	12.0%	11.2%
Median	1.2%	11.1%	11.9%	12.3%	0.6%	12.5%	12.3%	12.1%	0.5%	13.3%	12.4%	11.8%
75th Percentile	1.9%	11.6%	12.3%	12.6%	0.8%	13.0%	12.9%	12.5%	0.7%	14.2%	13.6%	12.5%
Range of Returns	3.3%	7.4%	6.0%	5.2%	6.8%	8.4%	5.3%	5.7%	2.2%	8.5%	7.5%	5.1%
Average	1.3%	11.0%	11.8%	12.0%	0.6%	12.5%	12.3%	12.0%	0.4%	13.0%	12.6%	11.8%
Weighted Average	1.5%	11.5%	12.1%	12.1%	0.6%	11.6%	12.4%	12.0%	0.6%	13.2%	12.5%	11.5%

^{*}Annualised return

Three Months Performance



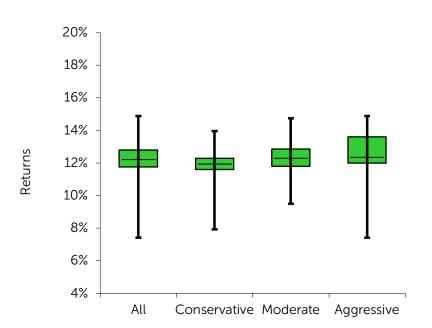
One Year Performance



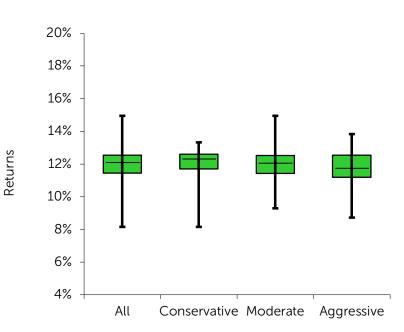
Analysis and Distribution of Returns







Five Year Performance



Conservative schemes posted the highest median returns over the 3 months and 5 years periods, aided by a higher allocation towards Fixed Income that performed strongly over these periods.

Aggressive schemes had the strongest performance median return over the 1 year and 3 year periods; on the background of better performance from the equities and offshore asset classes over these periods. Aggressive schemes have a higher allocation towards equities and offshore assets.

Asset Class Returns for 3 Months Ending 31 December 2021

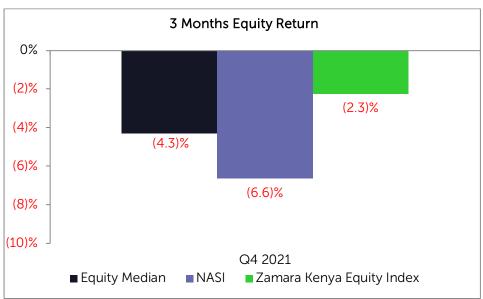


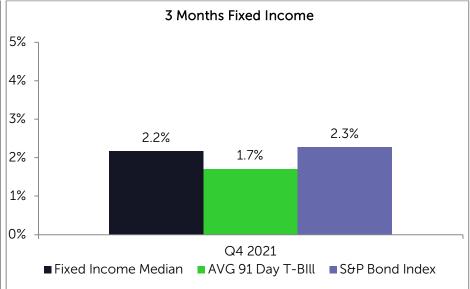
	Equity	Fixed Income	Offshore
25th Percentile	(4.7)%	2.0%	5.3%
Median	(4.3)%	2.2%	6.6%
75th Percentile	(3.9)%	2.3%	7.9%
Range of Returns	12.6%	3.4%	26.4%
Average	(4.3)%	2.2%	6.6%
Weighted Average	(4.4)%	2.3%	7.3%

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

Fixed Income: The fixed income median return outperformed the average 91 Day Treasury Bill, while underperforming the S&P Bond index.

Offshore: The offshore median return out-performed MSCI Emerging and MSCI ACWI indices, while underperforming the MSCI world Index.







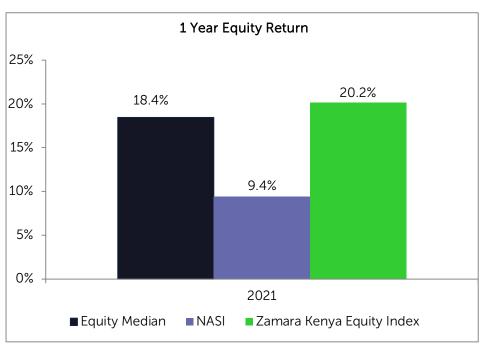


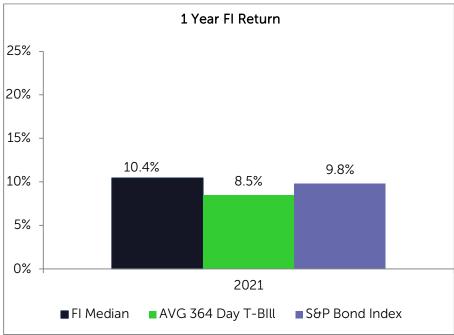
	Equity	Fixed Income	Offshore		
25th Percentile	17.5%	10.0%	11.2%		
Median	18.4%	10.4%	20.5%		
75th Percentile	19.9%	10.8%	22.0%		
Range of Returns	26.2%	7.5%	47.5%		
Average	18.5%	10.4%	17.6%		
Weighted Average	18.1%	10.5%	20.0%		

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

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

Offshore: The offshore median return out-performed MSCI Emerging, MSCI world and MSCI ACWI Indices.







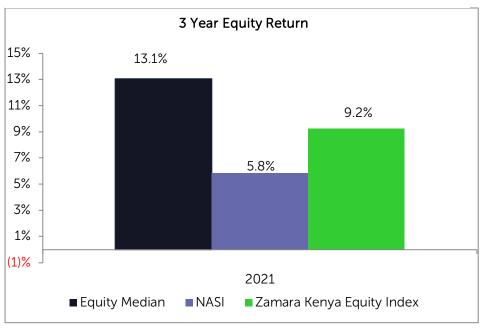
Asset Class Returns for 3 Years Ending 31 December 2021

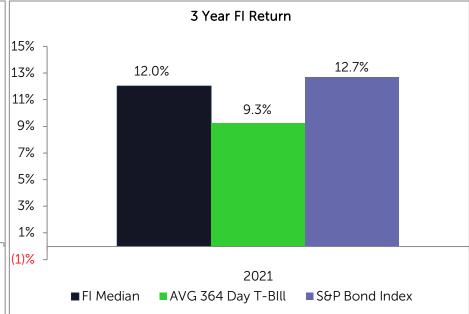
	Equity	Fixed Income	Offshore
25th Percentile	10.6%	11.7%	15.9%
Median	13.1%	12.0%	28.6%
75th Percentile	14.6%	12.4%	30.9%
Range of Returns	24.2%	7.0%	55.8%
Average	12.6%	12.0%	24.0%
Weighted Average	12.2%	12.1%	27.5%

Equity: The equity median return outperformed the NASI and 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, MSCI world and MSCI ACWI Indices.





Asset Class Returns for 5 Years Ending 31 December 2021

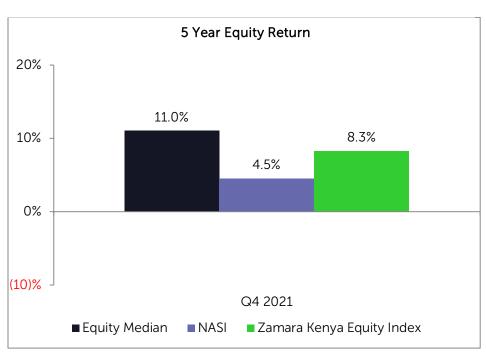


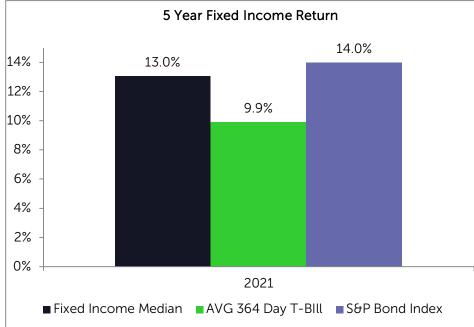
	Equity	Fixed Income	Offshore
25th Percentile	8.8%	12.6%	9.6%
Median	11.0%	13.0%	18.4%
75th Percentile	12.6%	13.4%	20.6%
Range of Returns	24.9%	6.7%	23.7%
Average	11.1%	13.0%	15.5%
Weighted Average	10.3%	13.1%	16.5%

Equity: The equity median return outperformed the NASI and 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, MSCI world and MSCI ACWI Indices.





Analysis of Asset Allocation for the Period Ending 31 December 2021



							Asset Cla	ass Allocatior	1							
	All Schemes					Conserva	itive Scheme	es .	Moderate Schemes					Aggressiv	ve Schemes	
	Equity	Fixed Income	Property	Offshore	Equity	Fixed Income	Property	Offshore	Equity	Fixed Income	Property	Offshore	Equity	Fixed Income	Property	Offshore
Average	21.8%	71.5%	5.3%	1.4%	11.6%	86.6%	1.6%	0.2%	24.0%	69.8%	4.8%	1.4%	27.2%	49.4%	18.5%	4.9%
Weighted Average	22.2%	65.1%	10.7%	2.0%	12.6%	84.3%	2.9%	0.2%	23.5%	66.3%	8.7%	1.5%	24.0%	45.0%	25.7%	5.3%
Range of Allocation	40.3%	96.4%	88.6%	14.3%	19.7%	73.6%	73.6%	6.4%	26.5%	58.5%	68.5%	7.0%	32.4%	61.1%	88.6%	14.3%
Median	22.5%	73.1%	-	-	13.3%	86.0%	-	-	21.4%	67.8%	-	-	29.0%	54.5%	9.3%	4.2%

For comparison, we include the asset allocation figures as shown in our September 2021 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	22.4%	70.9%	5.4%	1.3%	10.4%	86.0%	3.2%	0.4%	24.1%	70.2%	4.5%	1.2%	30.2%	49.8%	16.4%	3.6%		
Weighted Average	24.1%	60.7%	13.7%	1.6%	8.9%	61.4%	29.4%	0.2%	24.1%	65.9%	8.5%	1.5%	36.7%	38.2%	21.6%	3.5%		
Range of Allocation	70.8%	100.0%	100.0%	13.5%	199%	100.0%	100.0%	6.9%	25.8%	57.5%	66.7%	6.5%	62.9%	61.3%	88.6%	13.5%		
Median	19.6%	66.3%	-	-	11.7%	87.1%	-	-	21.7%	68.1%	-	-	31.6%	56.8%	-	3.0%		

22.1% of the Schemes participating in the Survey had an allocation to property.

38.6% 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 with allocations to equities and property decreased over the quarter.





Exchange Rates	Dec-2021	Dec-2020	Dec-2019	Dec-2018	Dec-2017	Dec-2016	Dec-2015	Dec-2014	Dec-2013	Dec-2012
KES/ USD	113.1412	109.1718	101.3365	101.8461	103.2317	102.4858	102.3114	90.5978	86.3097	86.0286
Inflation										
Headline	5.73%	5.62%	5.82%	5.71%	4.49%	6.35%	8.01%	6.02%	7.15%	1.73%
Food	9.09%	7.19%	10.02%	2.54%	4.68%	11.22%	13.26%	7.71%	10.41%	3.89%
Non-food	6.24%	3.07%	2.40%	13.47%	5.13%	0.06%	4.81%	4.45%	5.02%	3.20%
Interest Rates										
Central Bank Rate	7.00%	7.00%	8.50%	9.00%	10.00%	10.00%	11.50%	8.50%	8.50%	11.00%
Interbank Rate	4.95%	6.19%	5.46%	6.73%	6.91%	8.20%	6.87%	7.24%	12.19%	5.63%
Lending Rate		12.02%	12.24%	12.51%	13.64%	13.66%	18.30%	15.99%	16.99%	18.15%
Government Securities Yields										
AVG 91 Day T-Bill	6.95%	6.85%	6.87%	7.75%	8.34%	8.62%	10.58%	8.93%	8.92%	12.79%
AVG 182 Day T-Bill	7.57%	7.50%	7.82%	9.52%	10.43%	10.91%	11.97%	9.73%	9.29%	13.55%
AVG 364 Day T-Bill	8.52%	8.55%	9.48%	10.43%	10.95%	11.70%	12.63%	10.42%	10.79%	14.35%
Stock Market Indices										
NASI	9.43%	(8.59)%	18.50%	(17.97)%	28.39%	(8.48)%	(10.55)%	19.20%	44.05%	39.44%
Zamara Kenya Equity Index	20.16%	(18.57)%	33.19%	(11.60)%	29.40%	(7.99)%	(11.08)%	23.89%	41.66%	
MSCI World KES	24.87%	22.52%	24.56%	(11.64)%	20.99%	5.50%	9.83%	8.04%	24.50%	9.70%
MSCI ACWI KES	21.66%	22.55%	23.43%	(12.37)%	22.50%	5.81%	8.12%	7.17%	20.64%	9.12%
MSCI Emerging KES	0.79%	22.43%	14.85%	(17.76)%	35.33%	8.76%	(6.22)%	0.11%	(4.67)%	5.28%
Bond Indices										
FTSE Bond Index	10.26%	13.03%	14.88%	15.77%	16.50%	13.18%	8.62%	14.34%	10.28%	
S&P Sovereign Bond Index	9.82%	14.73%	13.55%	24.66%	7.78%	15.30%	5.53%	14.70%	15.87%	



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:

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Cliff Mayaka at cmayaka@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

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