Zamara Consulting Actuaries Schemes Survey

December 2018







We are pleased to present our 52nd Investment Performance Survey for the period ending 31 December 2018. In this edition, we introduce 3 months performance analysis.

This Survey covers 415 schemes with a total of K Shs 756.9 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 (K Shs m)
African Alliance Kenya Investment Bank Limited	8	
Apollo Asset Managers	4	
British American Asset Managers	27	
CIC Insurance	7	
Co-op Trust Investments	51	
GenAfrica Asset Managers	94	
ICEA Lion Asset Management Limited	34	
Old Mutual Investment Group Limited	74	
Sanlam Investments East Africa Limited	80	
Stanlib Investments	36	
Subtotal	415	756,884

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.

Executive Summary and Key Highlights



Key Highlights

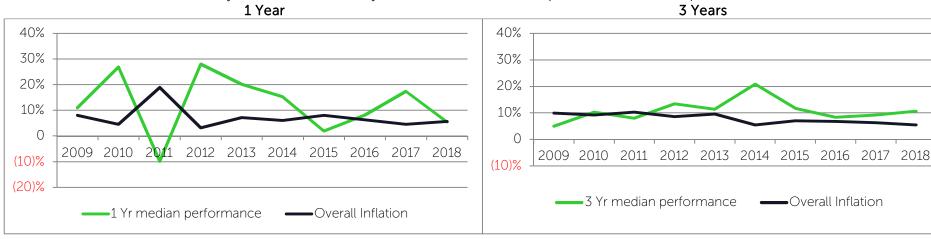
We set out in the table below, a summary of the median performance of schemes for each of the years from 31 December 2009 to 31 December 2018.

Period Ending 31 December	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of Schemes Participating	125	124	127	130	127	314	378	384	374	415
Total Assets K Shs Bn	106.9	137.4	130.9	171.8	217.1	479.4	535.8	596.5	677.3	756.9
1 Yr Median performance	11.0%	26.9%	(9.9)%	28.0%	20.2%	15.3%	1.9%	8.2%	18.1%	5.4%
3 Yr Median performance	5.0%	10.3%	8.0%	13.4%	11.4%	20.8%	11.8%	8.4%	9.3%	10.6%
Overall 1 year Inflation ¹	8.0%	4.5%	18.9%	3.2%	7.1%	6.0%	8.0%	6.4%	4.5%	5.7%
Overall 3 year Inflation ²	9.6%	9.2%	10.3%	8.7%	9.6%	5.4%	7.1%	6.8%	6.3%	5.5%

Notes:

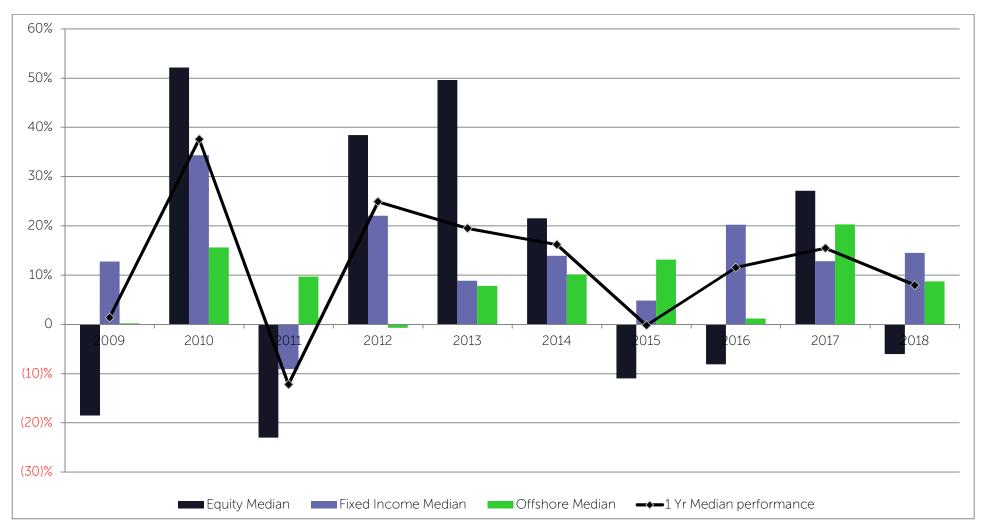
- 1. Based on KNBS Statistics 2006 2018: www.knbs.or.ke/
- 2. Calculated geometric average over 3 years.

The Survey indicates that the median scheme did not always outperform overall inflation over the 1 year period. Over 1 year, median returns underperformed inflation in 2011, 2015 and 2018 as shown in the 1 year chart below. Over 3 years, median returns have outperformed inflation except for 2009 and 2011.



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.

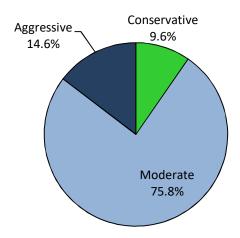
Risk Profile of Participating Schemes



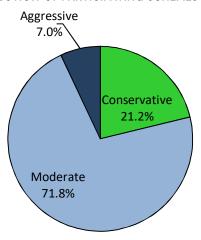
		STAT	ISTICS		
Risk Profile	Fixed Income Allocation*	Number of Schemes	Scheme Percentage %	Assets Under Management K Shs m	Asset Percentage %
Conservative	Over 80%	88	21.2%	73,033	9.6%
Moderate	65% to 80%	298	71.8%	573,818	75.8%
Aggressive	Less than 65%	29	7.0%	110,033	14.6%
Total		415	100.0%	756,884	100.0%

^{*}Asset allocation used to determine the above profiles excludes property

DISTRIBUTION OF PARTICIPATING SCHEMES BY ASSET SIZE



DISTRIBUTION OF PARTICIPATING SCHEMES BY NUMBER



415 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 71.8% of participating schemes and manage 75.8% of assets in this survey.

Conservative schemes make up 21.2% of number of participating schemes but only 9.6% of assets under management. 76.1% of the conservative schemes are schemes with assets under management of less than K shs 1 billion.

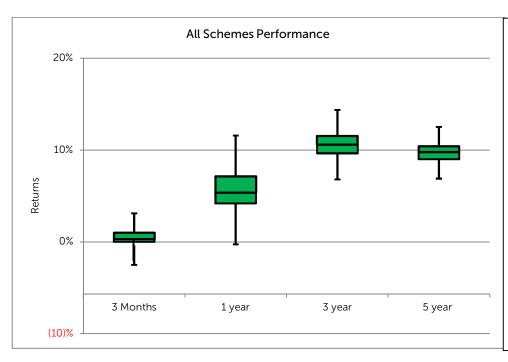
Aggressive schemes make up 7.0% of number of participating schemes with 14.6% of assets under management. 65.5% of the aggressive schemes have assets worth more than K shs 1 billion. Low equity valuations over the guarter made a number of schemes move to less aggressive risk profiles.

Analysis and Distribution of Returns for the Period Ending 31 December 2018



	3 Month	1 year	3 year*	5 year*
25th Percentile	(0.4)%	4.2%	9.6%	9.0%
Median	0.3%	5.4%	10.6%	9.8%
75th Percentile	1.0%	7.1%	11.5%	10.4%
Range of Returns	6.7%	17.5%	12.3%	6.9%
Average	0.3%	5.7%	10.5%	9.6%
Weighted Average	(0.0)%	5.2%	9.8%	8.9%

^{*}Annualised return



Over the quarter to December 2018, the median of the participating schemes was 0.3% with performance pulled down by the equity performance.

Over 1 year, the median return of the participating schemes was 5.4% compared to 18.1% over a similar period in 2017. The decline is a result of the stock market plummeting in 2018 after a strong performance in 2017.

Over 3 years, the median return of the participating schemes was an annualised 10.6%; aided by strong and consistent performance from the Fixed Income market.

Over 5 years, the median return of the participating schemes was an annualised 9.8% with a range of returns of 6.9%. However, the range between the 25^{th} and 75^{th} percentile was only 1.4%.

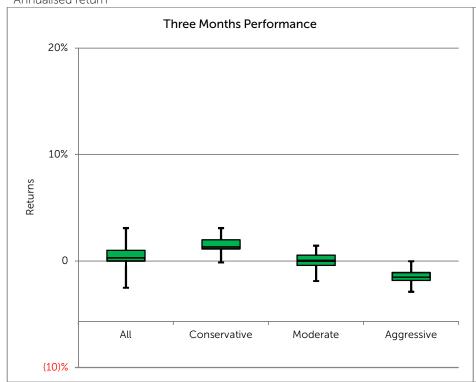
The box plots on the next page show our analysis of the median and range of returns of the participating schemes categorized by risk profile: conservative, moderate and aggressive schemes

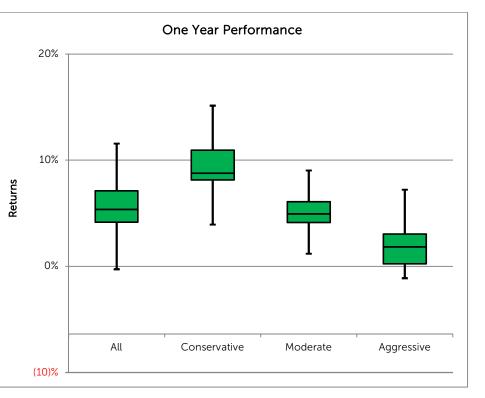
Analysis and Distribution of Returns for the Period Ending 31 December 2018



						F	Return Distril	oution				
		Conservativ	ve 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	1.1%	8.1%	11.5%	10.4%	(0.4)%	4.1%	9.5%	8.9%	(1.8)%	0.4%	7.8%	7.4%
Median	1.3%	8.8%	11.9%	10.6%	0.1%	4.9%	10.4%	9.6%	(1.5)%	1.9%	9.2%	8.3%
75th Percentile	2.0%	10.9%	12.5%	11.1%	0.6%	6.1%	11.2%	10.1%	(1.1)%	3.0%	10.1%	9.4%
Range of Returns	3.5%	15.2%	12.3%	5.8%	3.5%	11.9%	6.7%	5.9%	4.7%	9.5%	5.4%	5.2%
Average	1.6%	9.4%	11.9%	10.7%	0.0%	5.0%	10.3%	9.4%	(1.5)%	1.9%	9.0%	8.5%
Weighted Average	1.6%	9.4%	12.1%	10.7%	0.1%	5.2%	9.8%	9.0%	(1.5)%	1.9%	8.3%	8.1%

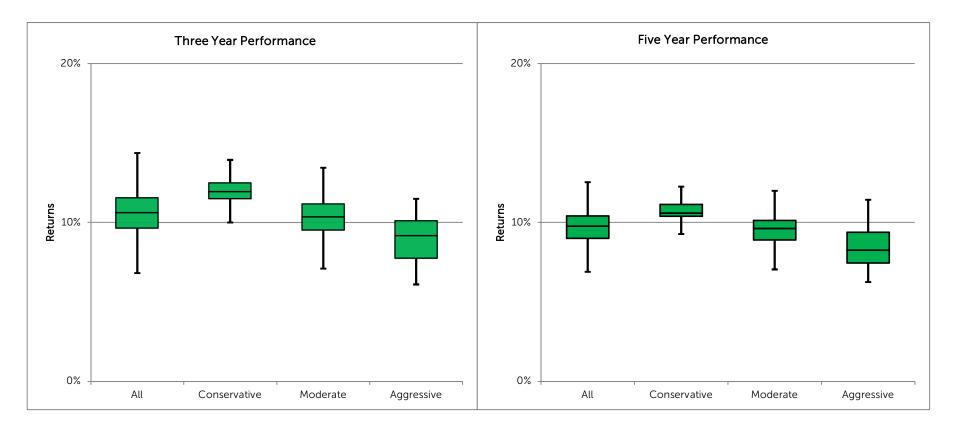
^{*}Annualised return





Analysis and Distribution of Returns for the Period Ending 31 December 2018





Conservative schemes had the strongest performance over all periods under review.

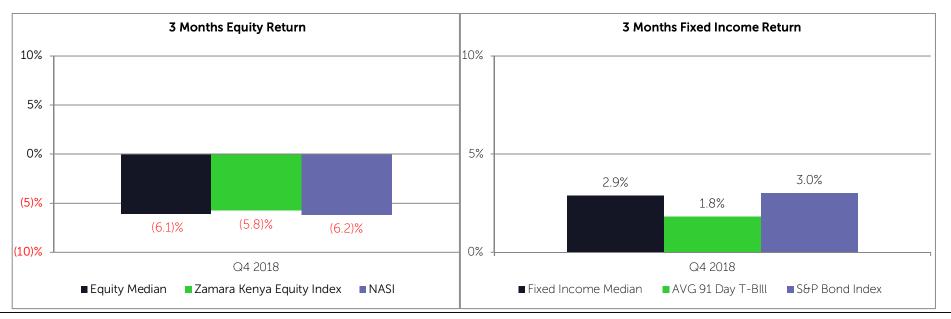
Conservative schemes have a higher allocation of Fixed income asset class which was the best performing asset class across all periods.

Aggressive schemes posted the lowest returns across all periods caused by a higher allocation to the equity and offshore asset classes which have been the lowest performing asset classes.

Asset Class Returns for 3 Months Ending 31 December 2018



		All Schemes	i	Cons	ervative Sch	emes	Мо	derate Sche	mes	Aggressive Schemes			
	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	
25th Percentile	(7.1)%	2.7%	(15.6)%	(6.2%	2.8%	(13.6)%	(7.1)%	2.7%	(15.7)%	(7.7)%	2.7%	(14.8)%	
Median	(6.1)%	2.9%	(14.1)%	(5.5)%	2.9%	(13.6)%	(6.4)%	2.9%	(14.4)%	(6.2)%	2.9%	(13.6)%	
75th Percentile	(5.2)%	3.0%	(11.5)%	(5.1)%	3.0%	(13.6)%	(5.4)%	3.0%	(11.1)%	(5.2)%	3.0%	(12.2)%	
Range of Returns	11.4%	6.3%	20.2%	6.9%	4.6%	-	6.9%	6.3%	20.2%	11.2%	1.0%	7.2%	
Average	(6.1)%	2.9%	(13.2)%	(5.7)%	2.9%	(13.6)%	(6.1)%	2.9%	(13.2)%	(6.3)%	2.8%	(13.3)%	
Weighted Average	(6.0)%	2.9%	(14.5)%	(5.5)%	3.0%	(13.6)%	(5.9)%	2.9%	(14.6)%	(6.5)%	2.9%	(14.4)%	



Equity: All schemes equity median return outperformed the NASI but underperformed the Zamara Kenya Equity Index.

Fixed Income: All schemes fixed income median return outperformed the average 91 Day Treasury Bill but underperformed the S&P Bond index..

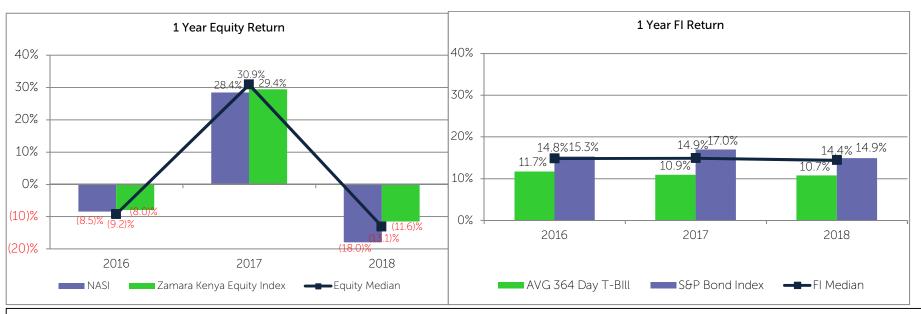
Offshore: All schemes offshore median return under-performed MSCI Emerging, MSCI world and MSCI ACWI Indices.





All Schemes	Conservative Schemes	Moderate Schemes	Aggressive Schemes
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	Equity	Fixed Income	Offshore									
25th Percentile	(14.9)%	13.5%	(16.1)%	(13.7)%	13.8%	(14.1)%	(15.3)%	13.3%	(16.6)%	(14.1)%	14.2%	(15.9)%
Median	(13.1)%	14.4%	(10.7)%	(12.0)%	14.8%	(14.1)%	(13.3)%	14.2%	(10.7)%	(13.4)%	14.6%	(11.8)%
75th Percentile	(12.0)%	15.0%	(8.0)%	(11.1)%	15.2%	(14.1)%	(12.3)%	14.9%	(7.2)%	(12.7)%	14.9%	(9.9)%
Range of Returns	29.6%	11.9%	27.4%	18.7%	10.0%	-	29.6%	11.9%	27.4%	11.5%	3.0%	15.1%
Average	(13.7)%	14.2%	(11.5)%	(12.8)%	14.2%	(14.1)%	(14.0%	14.1%	(11.2)%	(13.5)%	14.5%	(13.1)%
Weighted Average	(13.4)%	14.6%	(13.2)%	(12.7)%	14.6%	(14.1)%	(13.4)%	14.6%	(13.3)%	(13.3)%	14.5%	(12.9)%



Equity: All schemes equity median return outperformed the NASI but underperformed the Zamara Kenya Equity Index.

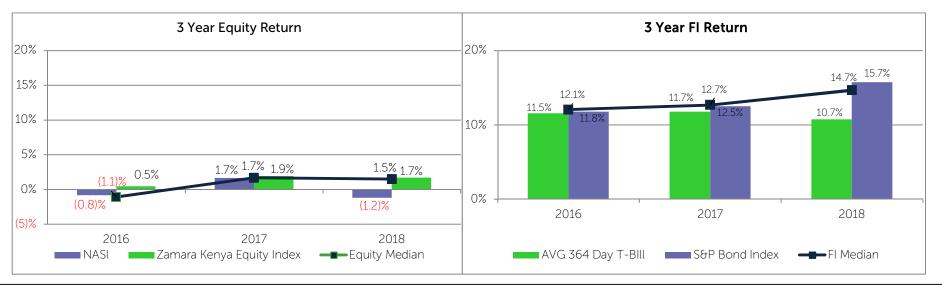
Fixed Income: All schemes fixed income median return outperformed the average 364 Day Treasury Bill but underperformed the S&P Bond Index.

Offshore: All schemes offshore median return outperformed MSCI Emerging and MSCI ACWI Indices but underperformed the MSCI World index.

Asset Class Returns for 3 Years Ending 31 December 2018



		All Schemes			nservative S	chemes	M	loderate Sch	nemes	Aggressive Schemes		
	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore
25th Percentile	0.0%	14.1%	1.7%	1.4%	14.1%	4.1%	(0.3)%	14.1%	2.7%	0.7%	14.5%	1.6%
Median	1.5%	14.7%	4.5%	2.0%	15.0%	4.1%	1.1%	14.6%	4.6%	1.9%	14.9%	3.7%
75th Percentile	2.6%	15.2%	5.7%	2.6%	15.3%	4.1%	2.6%	15.2%	5.8%	2.5%	15.6%	5.4%
Range of Returns	26.4%	11.5%	38.4%	26.4%	10.4%	-	18.5%	9.8%	38.4%	13.1%	3.7%	8.0%
Average	0.8%	14.6%	3.1%	1.7%	14.5%	4.1%	0.6%	14.6%	3.0%	1.4%	15.0%	2.9%
Weighted Average	0.7%	14.7%	4.1%	1.7%	14.9%	4.1%	0.7%	14.7%	4.6%	0.4%	14.9%	3.5%



Equity: All schemes equity median return outperformed NASI but underperformed Zamara Kenya Equity Index.

Fixed Income: All schemes fixed income median return outperformed the average 364 Day Treasury Bill, however, underperformed the S&P Bond Index.

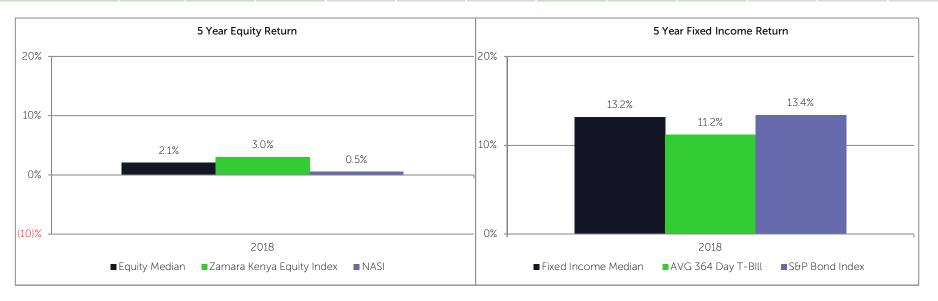
Offshore: All schemes offshore median return outperformed MSCI World Index but underperformed MSCI Emerging Index.

Asset Class Returns for 5 Years Ending 31 December 2018



All Schemes	Conservative Schemes	Moderate Schemes	Aggressive Schemes
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	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	
25th Percentile	0.9%	12.5%	5.9%	1.6%	12.9%	0.7%	0.7%	12.4%	6.0%	1.4%	13.1%	4.8%	
Median	2.1%	13.2%	6.8%	2.3%	13.5%	0.7%	1.9%	13.0%	6.8%	2.3%	13.6%	6.8%	
75th Percentile	2.8%	13.7%	7.6%	2.7%	13.7%	0.7%	2.8%	13.6%	7.9%	2.6%	13.8%	7.1%	
Range of Returns	25.2%	8.9%	27.8%	20.2%	6.4%	-	15.1%	8.0%	27.8%	8.0%	2.5%	7.0%	
Average	1.8%	13.0%	5.4%	2.3%	13.2%	0.7%	1.6%	12.9%	5.4%	2.2%	13.4%	5.6%	
Weighted Average	1.7%	13.3%	6.7%	2.4%	13.4%	0.7%	1.5%	13.2%	7.1%	2.0%	13.7%	6.2%	



Equity: All schemes equity median return outperformed the NASI indices but underperformed Zamara Kenya Equity Index.

Fixed Income: All schemes fixed income median return outperformed the average 364 Day Treasury.

Offshore: All schemes offshore median return outperformed MSCI World, MSCI ACWI and MSCI Emerging indices.

Analysis of Asset Allocation for the Period Ending 31 December 2018



	Asset Class Allocation															
		All Schem	nes		Conservative Schemes				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	21.9%	71.3%	5.4%	1.4%	12.3%	86.4%	1.2%	0.1%	24.2%	68.9%	5.4%	1.5%	26.8%	49.4%	19.2%	4.6%
Weighted Average	22.6%	63.4%	12.3%	1.7%	13.1%	84.3%	2.5%	0.1%	23.5%	64.5%	10.5%	1.5%	24.6%	43.8%	27.6%	4.0%
Range of Allocation	50.0%	92.3%	85.2%	12.8%	19.9%	80.4%	80.4%	7.0%	42.9%	72.7%	85.2%	8.9%	28.5%	37.6%	47.5%	12.8%
Median	23.2%	73.2%	-	-	15.8%	83.5%	-	-	24.5%	71.9%	-	-	24.6%	47.4%	25.2%	4.4%

For comparison, we include the asset allocation figures as shown in our September 2018 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	22.7%	70.4%	5.1%	1.9%	11.2%	87.0%	1.7%	0.2%	24.6%	69.6%	4.4%	1.4%	27.4%	51.8%	13.8%	7.0%
Weighted Average	23.7%	62.0%	12.2%	2.1%	12.4%	84.1%	3.4%	0.1%	24.4%	64.2%	10.0%	1.3%	25.3%	46.9%	22.4%	5.4%
Median	24.0%	72.8%	-	-	13.0%	85.7%	-	-	24.7%	72.5%	-	-	26.9%	55.8%	-	5.7%

We note that 20.7% of the Schemes participating in the Survey had allocations in property.

We also note that 34% of the Schemes participating in the Survey had allocations in offshore.

The Survey indicates that the average scheme's exposure to fixed income, offshore and property increased over the quarter; while the equity and offshore exposure decreased over the quarter.

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 (previously Alexander Forbes Financial Services (East Africa) 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) and three (3) 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.

An addition to the Survey is an analysis of the performance attributed to equity, fixed income and offshore over a rolling one (1) year period. This analysis will assist the Trustees in understanding which of the asset classes contributed to the overall performance of their scheme.

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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ZamaraPowering Prosperity

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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