Zamara Consulting Actuaries Schemes Survey

December 2017



ZamaraPowering Prosperity

Introduction

We are pleased to present our 48th Investment Performance Survey for the period ending 31 December 2017.

This Survey covers 374 schemes with a total of K Shs 677.3 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	7	
Apollo Asset Managers	4	
British American Asset Managers	22	
CIC Insurance	7	
Co-op Trust Investments	51	
GenAfrica	89	
ICEA Lion Asset Management Limited	36	
Old Mutual Investment Group Limited	79	
Sanlam Investments Limited	3	
Sanlam Investments East Africa Limited (previously PineBridge Investments)	61	
Stanlib Investments	15	
Subtotal	374	677,299

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

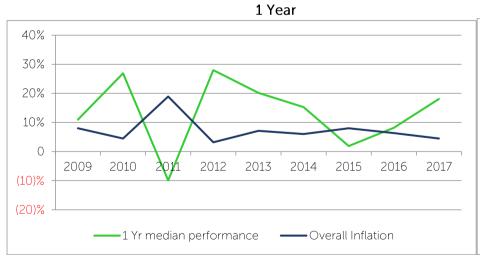
We set out in the table below, a summary of the median performance of Schemes for each of the years from 31 December 2009 to 31 December 2017.

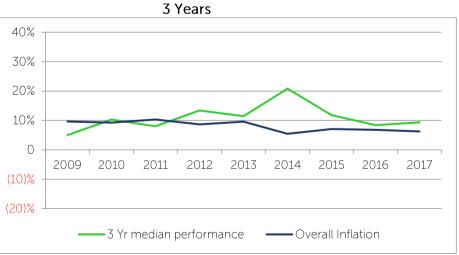
Period Ending 31 December	2009	2010	2011	2012	2013	2014	2015	2016	2017
Number of Schemes Participating	125	124	127	130	127	314	378	384	374
Total Assets K Shs Bn	106.9	137.4	130.9	171.8	217.1	479.4	535.8	596.5	677.3
1 Yr Median performance	11.0%	26.9%	(9.9)%	28.0%	20.2%	15.3%	1.9%	8.2%	18.1%
3 Yr Median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

Notes:

- 1. Based on KNBS Statistics 2006 2017: www.knbs.or.ke/
- 2. Calculated geometric average over 3 years.

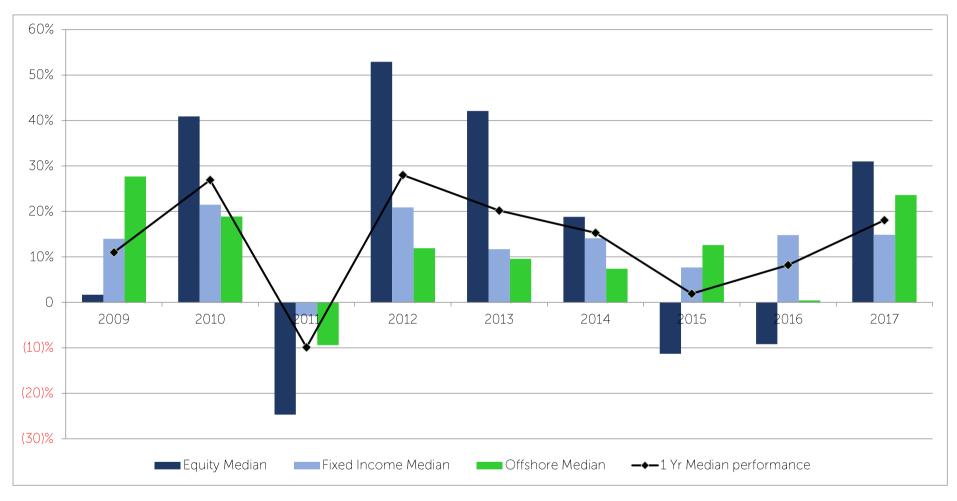
The Survey indicates that the median scheme did not always outperform overall inflation over the 1 year period. Over 1 year, median returns underperformed inflation in 2011 and 2015 as shown in the 1 year chart below. Over 3 years, median returns have outperformed inflation with the exception of the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





Executive Summary and Key Highlights





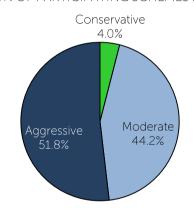
The chart above shows the median performance trend of the three asset classes (equity, fixed income and offshore) as at 31 December for each of the last 9 years.

Risk Profile of Participating Schemes

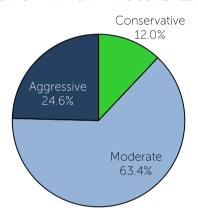


	STATISTICS												
Risk Profile	Fixed Income Allocation	Number of Schemes	Scheme Percentage %	Asset Percentage %	Assets Under Management								
Conservative	Over 80%	45	12.0%	4.0%	27,056								
Moderate	65% to 80%	237	63.4%	44.2%	299,082								
Aggressive	Less than 65%	92	24.6%	51.8%	351,161								
TOTAL		374	100.0%	100.0%	677,299								

DISTRIBUTION OF PARTICIPATING SCHEMES BY ASSET SIZE



DISTRIBUTION OF PARTICIPATING SCHEMES BY NUMBER



374 Schemes qualified for inclusion in the Survey on the basis of being segregated arrangements with at least 1 year and 3 year consecutive return periods.

The survey is dominated by moderate schemes; they comprise 63.4% of participating schemes and manage 44.2% of assets in this survey.

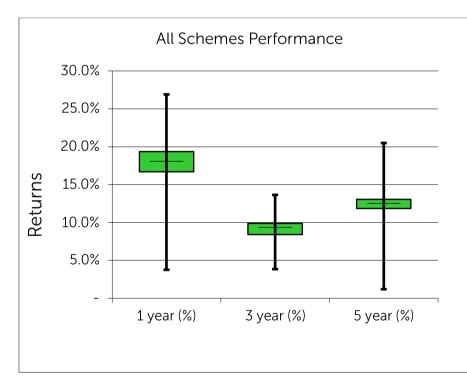
Conservative schemes make up 12.0% of number of participating schemes but only 4.0% of assets under management; this is because 62% of the conservative schemes are small schemes.

Aggressive schemes make up only 24.6% of number of participating schemes but make up 51.8% of assets under management; this is because 67% of the aggressive schemes are large schemes.

Analysis and Distribution of Returns for the Period Ending 31 December 2017

	1 year	3 year*	5 year*
25th Percentile	16.7%	8.4%	11.9%
Median	18.1%	9.3%	12.5%
75th Percentile	19.4%	9.9%	13.1%
Range of Returns	23.1%	9.8%	19.3%
Average	17.9%	9.2%	12.4%
Weighted Average	18.5%	8.1%	12.3%

^{*}Annualised return



Over 1 year, the median return of the participating schemes was 18.1%. There was a significant range of returns of 23.1%. However, the range between the 25^{th} and 75^{th} percentile was only 2.7%.

Over 3 years, the median return of the participating schemes was an annualised 9.3% with a range of returns of 9.8%. However, the range between the 25^{th} and 75^{th} percentile was only 1.5%.

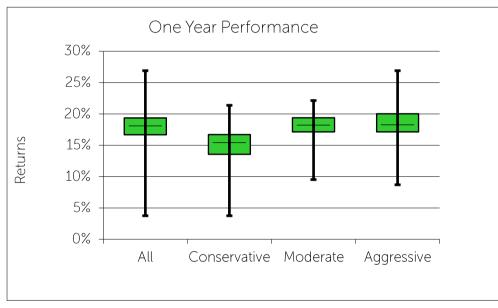
Over 5 years, the median return of the participating schemes was an annualised 12.5% with a range of returns of 19.3%. However, the range between the $25^{\rm th}$ and $75^{\rm th}$ percentile was only 1.2%.

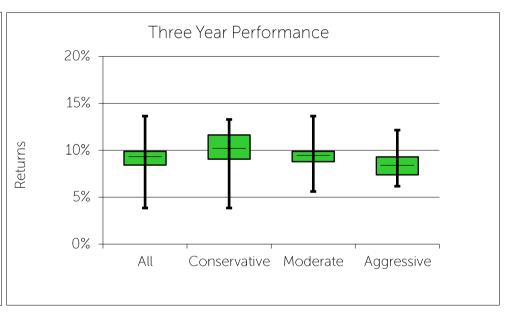
The box plots on the next page show our analysis of the median and range of returns of the participating schemes categorized by risk profile: conservative, moderate and aggressive schemes

Analysis and Distribution of Returns for the Period Ending 31 December 2017

	All Sc	hemes	Conservat	ive Schemes	Moderate	e Schemes	Aggressive Schemes		
	1 year (%)	3 year (%)*	1 year (%)	3 year (%)*	1 year (%)	3 year (%)*	1 year (%)	3 year (%)*	
25th Percentile	16.7%	8.4%	13.6%	9.1%	17.1%	8.8%	17.1%	7.4%	
Median	18.1%	9.3%	15.4%	10.2%	18.2%	9.4%	18.3%	8.4%	
75th Percentile	19.4%	9.9%	16.7%	11.6%	19.4%	9.9%	20.0%	9.3%	
Range of Returns	23.1%	9.8%	17.6%	9.4%	12.6%	8.0%	18.2%	6.0%	
Average	17.9%	9.2%	15.0%	10.0%	18.2%	9.3%	18.6%	8.4%	
Weighted Average	18.5%	8.1%	15.7%	9.7%	18.5%	8.3%	18.8%	7.8%	

^{*}Annualised return





Aggressive schemes had the strongest performance over one year. The Aggressive schemes 25th Percentile return was superior to conservative schemes median return over the one year period.

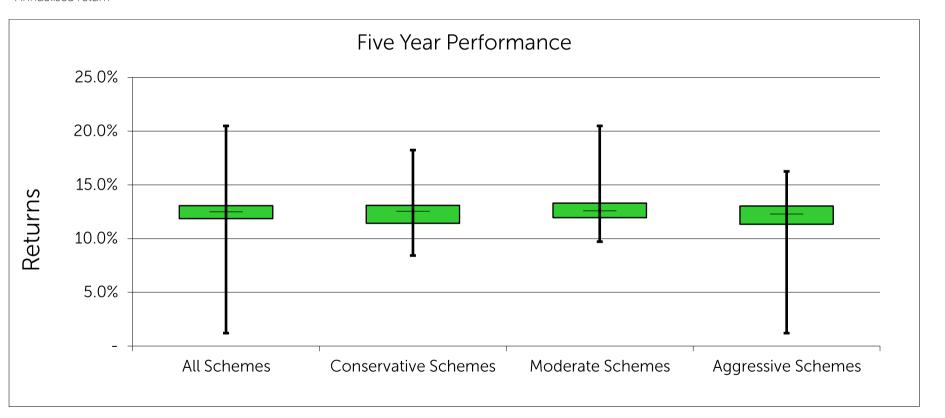
The narrative for the three year period changes, with conservative schemes generating the highest median return and aggressive schemes posting the lowest.

This is indicative of the aggressive schemes benefitting more from the strong equity performance as they had a higher allocation to equities over the year while conservative schemes performed strongly over the three year period due to the bear run in the equity market in 2015 and 2016.

Analysis and Distribution of Returns for the 5 Year Period Ending 31 December 2017

	All Schemes	Conservative Schemes	Moderate Schemes	Aggressive Schemes
	5 year (%)*	5 year (%)*	5 year (%)*	5 year (%)*
25th Percentile	11.9%	11.4%	11.9%	11.3%
Median	12.5%	12.5%	12.6%	12.3%
75th Percentile	13.1%	13.1%	13.3%	13.0%
Range of Returns	19.3%	9.8%	10.8%	15.1%
Average	12.4%	12.4%	12.7%	11.9%
Weighted Average	12.3%	12.6%	12.8%	11.8%

^{*}Annualised return

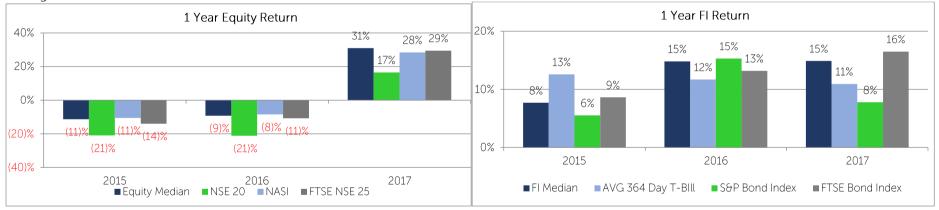


Asset Class Returns for 1 Year Ending 31 December 2017



		All Schem	nes	Co	onservative	Schemes		Moderate Sc	hemes	Aggressive Schemes			
	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	
25th Percentile	26.5%	14.1%	21.8%	23.9%	12.6%	19.4%	27.2%	14.2%	22.6%	25.7%	14.2%	20.0%	
Median	31.0%	14.9%	23.6%	31.0%	14.3%	19.4%	31.2%	14.9%	24.1%	29.9%	14.9%	23.5%	
75th Percentile	34.7%	15.5%	25.1%	37.4%	15.0%	19.4%	34.7%	15.5%	26.0%	34.5%	15.4%	24.3%	
Range of Returns	74.4%	17.8%	26.9%	74.4%	14.7%	-	34.3%	10.6%	24.4%	38.7%	15.1%	19.5%	
Average	30.4%	14.7%	22.2%	29.0%	14.0%	19.4%	30.9%	14.8%	22.4%	29.5%	14.8%	22.2%	
Weighted Average	29.3%	14.9%	21.8%	30.1%	14.0%	19.4%	29.9%	15.0%	19.9%	28.8%	14.8%	23.2%	

For comparison, the charts below indicate historical one year performance of select benchmarks and the Z - CASS asset class return median for the periods ending 31 December.



Equity: All schemes equity median return outperformed the NSE 20, NASI and FTSE NSE 25. There was a significantly large range in equity returns over the one year period; this due to some schemes with exposure to very limited stocks.

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

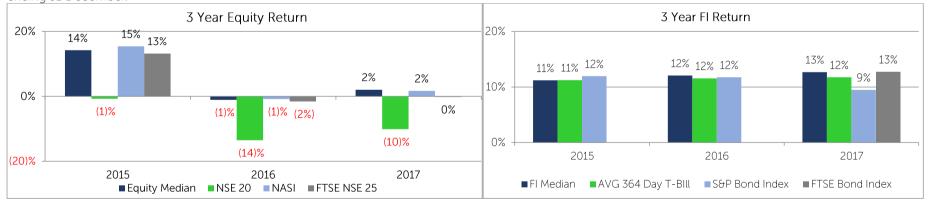
Offshore: All schemes offshore median return outperformed MSCI World, MSCI ACWI but slightly underperformed the MSCI Emerging Index and Citigroup World Government Bond Index.

Asset Class Returns for 3 Years Ending 31 December 2017



		All Schem	nes	Co	onservative	Schemes		Moderate So	hemes	Aggressive Schemes			
	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	
Average	1.7%	12.5%	11.5%	0.4%	12.4%	10.8%	1.7%	12.6%	11.9%	2.0%	12.5%	11.1%	
Weighted Average	0.7%	12.8%	11.5%	0.9%	13.5%	10.8%	0.3%	12.7%	10.3%	1.2%	12.9%	12.5%	
Range of Returns	33.6%	27.5%	19.4%	33.6%	9.8%	-	19.5%	27.5%	19.4%	17.0%	6.4%	10.9%	
25th Percentile	0.4%	12.1%	12.0%	(3.0)%	12.3%	10.8%	0.4%	12.1%	12.2%	0.6%	12.1%	11.3%	
Median	2.1%	12.7%	12.6%	1.7%	12.7%	10.8%	2.2%	12.7%	12.6%	2.0%	12.6%	12.6%	
75th Percentile	3.6%	13.1%	13.5%	2.8%	13.3%	10.8%	3.5%	13.2%	13.9%	3.7%	13.1%	13.5%	

For comparison, the charts below indicate historical three year performance of select benchmarks and the Z - CASS asset class return median for the periods ending 31 December.



Equity: All schemes equity median return outperformed the NSE 20, NASI and FTSE NSE 25.

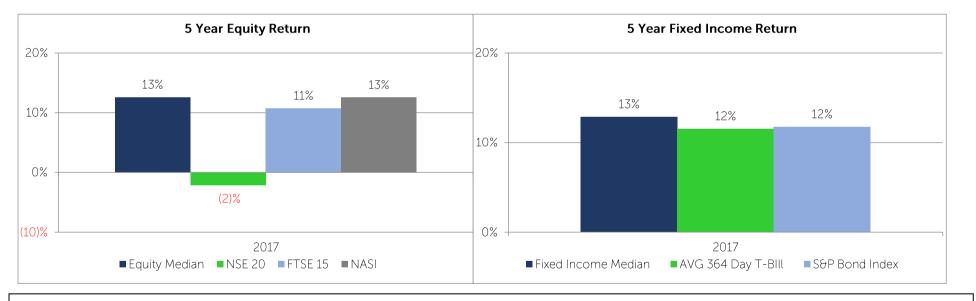
Fixed Income: All schemes fixed income median return slightly outperformed the average 364 Day Treasury, the S&P Bond Index and the FTSE Bond Index.

Offshore: All schemes offshore median return outperformed MSCI World, MSCI ACWI, MSCI Emerging Index and Citigroup World Government Bond Index.





		All Schem	ies	Co	onservative	Schemes	ı	Moderate So	chemes	Aggressive Schemes		
	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore	Equity	Fixed Income	Offshore
25th Percentile	11.2%	12.3%	11.7%	10.4%	12.4%	-	11.8%	12.0%	11.4%	11.7%	12.0%	11.8%
Median	12.6%	12.9%	12.0%	11.8%	12.9%	-	13.3%	12.6%	12.0%	12.8%	12.7%	11.9%
75th Percentile	14.1%	13.4%	13.4%	15.7%	13.3%	-	14.6%	13.4%	13.5%	14.2%	13.4%	12.3%
Range of Returns	48.7%	16.0%	25.3%	24.8%	8.0%	-	46.5%	11.9%	24.3%	38.5%	13.4%	20.7%
Average	14.2%	12.7%	12.9%	15.0%	12.0%	-	14.7%	12.7%	12.4%	15.4%	12.5%	13.6%
Weighted Average	12.2%	13.0%	15.5%	12.6%	13.0%	-	11.7%	13.2%	12.9%	12.9%	12.8%	17.4%



Equity: All schemes equity median return outperformed the NSE 20, NASI and FTSE NSE 25.

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

Offshore: All schemes offshore median return outperformed MSCI World, MSCI ACWI, MSCI Emerging Index and Citigroup World Government Bond Index.

Analysis of Asset Allocation for the Period Ending 31 December 2017 zamara



	Asset Class Allocation															
		All Sche	emes		Conservative Schemes				Mode	erate Schem	es		Aggressive Schemes			
	Equity	Fixed Income	Property	Offshore	Equity	Fixed Income	Property	Offshore	Equity	Fixed Income	Property	Offshore	Equity	Fixed Income	Property	Offshore
Average	24.0%	70.1%	4.3%	1.6%	10.0%	89.7%	0.2%	0.1%	25.5%	73.1%	0.2%	1.2%	26.7%	52.6%	17.2%	3.5%
Weighted Average	26.7%	61.4%	9.9%	2.0%	12.8%	86.6%	0.5%	0.1%	27.4%	70.8%	0.1%	1.7%	27.2%	51.4%	19.0%	2.4%
Range of Allocation	51.6%	83.2%	83.2%	12.5%	20.0%	20.0%	4.5%	4.7%	17.9%	14.9%	10.2%	8.5%	51.6%	47.8%	83.2%	12.5%
Median	24.6%	72.2%	0.0%	0.0%	10.8%	88.1%	0.0%	0.0%	25.0%	73.6%	0.0%	0.0%	25.7%	55.4%	17.0%	3.2%

For comparison, we include the asset allocation figures as shown in our September 2017 report.

	Asset Class Allocation															
			All Scheme	es		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	23.9%	70.8%	3.9%	1.4%	11.0%	88.8%	0.1%	0.1%	25.9%	73.0%	0.1%	1.1%	26.2%	52.6%	18.0%	3.2%
Weighted Average	26.7%	62.7%	8.8%	1.8%	12.9%	86.5%	0.5%	0.1%	27.7%	70.8%	0.1%	1.4%	27.0%	51.2%	19.5%	2.4%
Median	24.6%	72.6%	0.0%	0.0%	12.3%	87.2%	0.0%	0.0%	25.5%	73.6%	0.0%	0.0%	25.2%	55.3%	17.0%	2.4%

The Survey indicates that the average scheme's exposure to property and offshore increased over the quarter.

The fixed income and equity exposure has decreased slightly 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.

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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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