

**PENSION SCHEMES INVESTMENT
PERFORMANCE SURVEY**

Actuarial Services (E.A) Ltd.

Insurance | Financial | Investment | Risk | Pension | Health | I.T

Introduction

The ACTSERV Pension Schemes Investment Performance Survey, prepared by Actuarial Services East Africa Limited (ACTSERV), is a survey on the investment performance of pension schemes in Kenya under segregated funds. In the fourth quarter of 2022, a sample size of 422 schemes with a total fund value of about Kshs. 879 Billion (excluding property) were analysed. The total fund value of the sample including property and cash was Kshs. 987 Billion.

Purpose of the Survey

1. The Trustees and Fund Managers will be able to compare the returns/performances of their respective schemes with others that are similar in terms of size and risk appetite.
2. The Trustees and Fund Managers will be able to identify which asset categories performed better and compare the results of their scheme's asset categories with those of schemes that are similar in size and risk profile.
3. The survey compares the overall returns and the returns in different asset classes within respective risk profile categories.

About ACTSERV

Actuarial Services East Africa Limited (ACTSERV) has been providing services to the East African Market since 2001.

The services we offer include:

- Investment Consulting
- Retirement Fund Consulting
- Post Retirement Medical Consulting
- Life Insurance Consulting
- General and Health Care Insurance Consulting
- Management Consulting
- IT Services and Enterprise Risk Management

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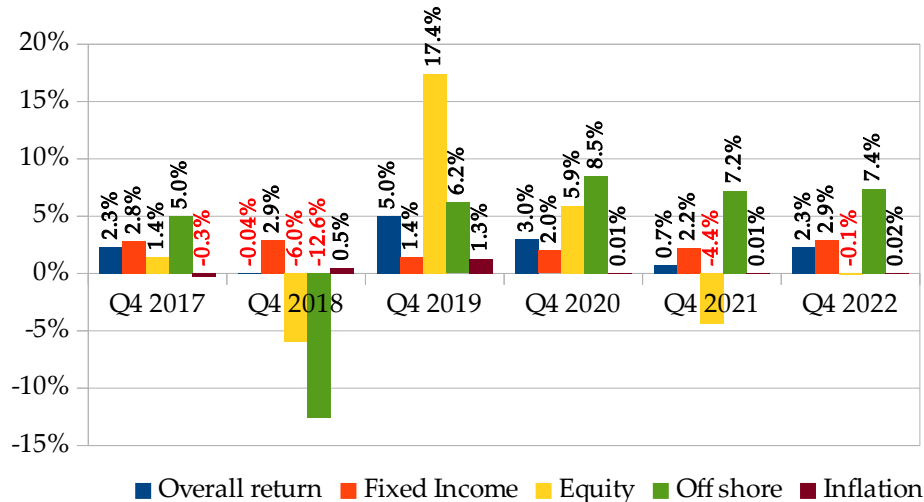
QUARTER SUMMARY	QUARTER (3 – MONTHS)				
	Q4 2018	Q4 2019	Q4 2020	Q4 2021	Q4 2022
Total Fund Value (Kshs. Bn)	759	790	841	850	879
Sample Size	422	423	417	419	422
Overall Return	-0.04%	5.0%	3.0%	0.7%	2.3%
Fixed income	2.9%	1.4%	2.0%	2.2%	2.9%
Equity	-6.0%	17.4%	5.9%	-4.4%	-0.1%
Off Shore	-12.6%	6.2%	8.5%	7.2%	7.4%
Inflation	0.5%	1.3%	0.01%	0.01%	0.02%

Overall returns computed for the quarter ending 30th December 2022 was **2.3%** compared to **0.7%** recorded in the same quarter last year and **3.0%** in Q4 2020.

The performance was largely driven by gains in Fixed Income and Equity asset classes which increased to **2.9%** and **-0.1%** from **2.2%** and **-4.4%** respectively in Q4 2021. The gain in fixed income was attributable to easing of liquidity in the money market as seen in decline in the interbank rate. The gain in equity performance performance was attributable to easing in inflation and favorable weather conditions coupled with steady energy prices which boosted investor sentiment.

Offshore performance increased to **7.4%** compared to **7.2%** and **8.5%** respectively in Q4 2021 and Q4 2020. The positive equities returns were majorly as a result of investors optimism that elevated inflation could be cooling, policy tightening would slow and strong corporate earnings.

Quarterly Figures All Schemes





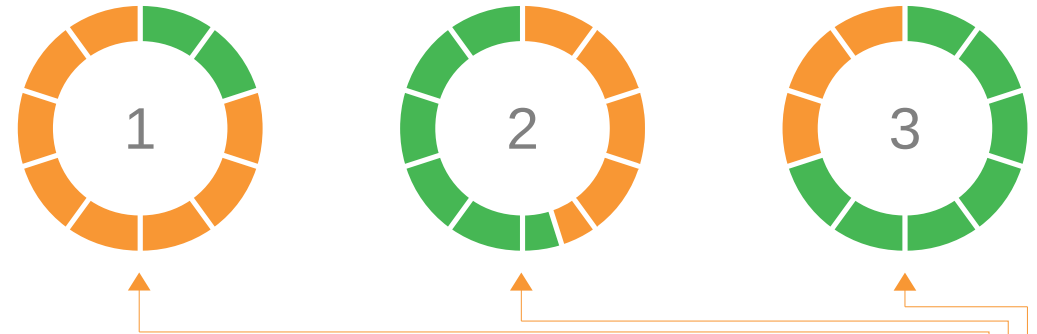
RISK PROFILING

RISK PROFILE

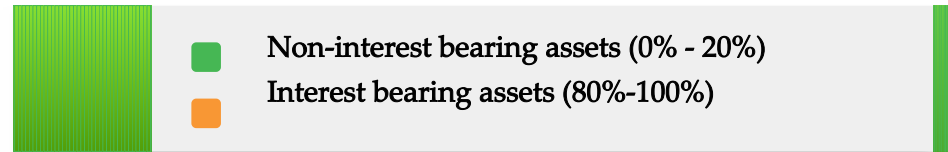
Suggested Asset Allocation Breakdown

- The risk profile is divided into three categories namely conservative, moderate and aggressive.
- The suggested asset allocation breakdown per risk profile is divided into non-interest bearing assets and interest bearing assets.
- The non-interest bearing assets comprise of equities, offshore and property whereas the interest bearing assets comprise of government securities, fixed and time deposits, commercial paper, corporate bonds and call deposits.

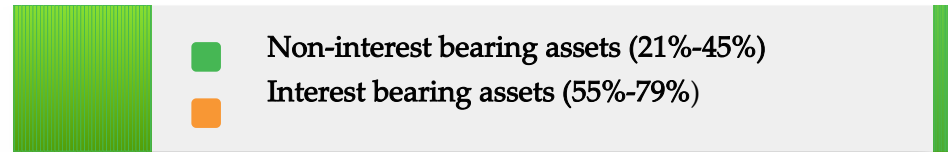
RISK PROFILE CATEGORIES



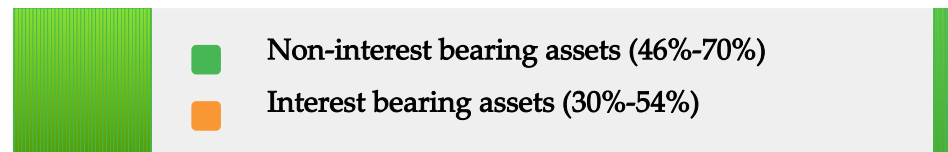
Conservative Risk Profile



Moderate Risk Profile



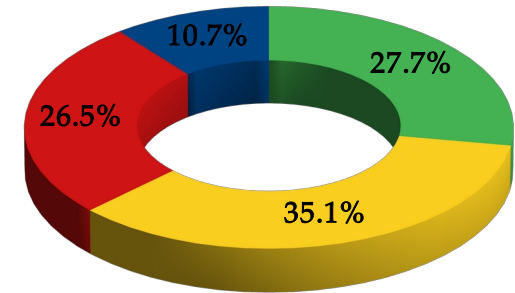
Aggressive Risk Profile



SAMPLE SIZE

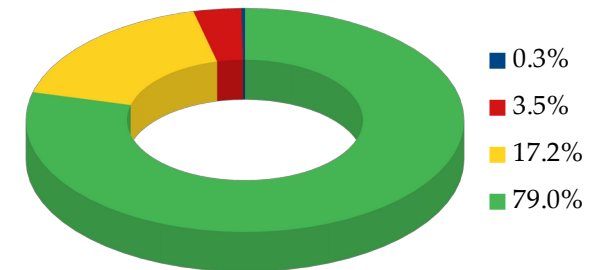
Size	Market Value (Ksh)	Risk Profile	Number of Schemes	Number of Schemes (%)	Fund Value (Kshs.)	Fund Value (%)
Small Schemes	Less than 100 Million	Conservative	23	51%	1,085,899,641	47%
		Moderate	19	42%	1,101,207,505	49%
		Aggressive	3	7%	102,256,236	4%
		Total	45	10.7%	2,289,363,382	0.3%
Medium Schemes	100 - 500 Million	Conservative	59	52%	14,811,002,183	48%
		Moderate	51	46%	15,619,986,580	50%
		Aggressive	2	2%	585,641,977	2%
		Total	112	26.5%	31,016,630,740	3.5%
Large Schemes	500 Million – 2 Billion	Conservative	72	48%	78,358,705,638	52%
		Moderate	75	51%	71,494,863,491	47%
		Aggressive	1	1%	1,320,155,298	1%
		Total	148	35.1%	151,173,724,427	17.2%
Mega Schemes	Over 2 Billion	Conservative	29	25%	176,848,006,060	25%
		Moderate	86	74%	500,395,734,408	73%
		Aggressive	2	1%	17,180,419,568	2%
		Total	117	27.7%	694,424,160,036	79.0%
OVERALL			422	100%	878,903,878,585	100%

Number of Participating Schemes

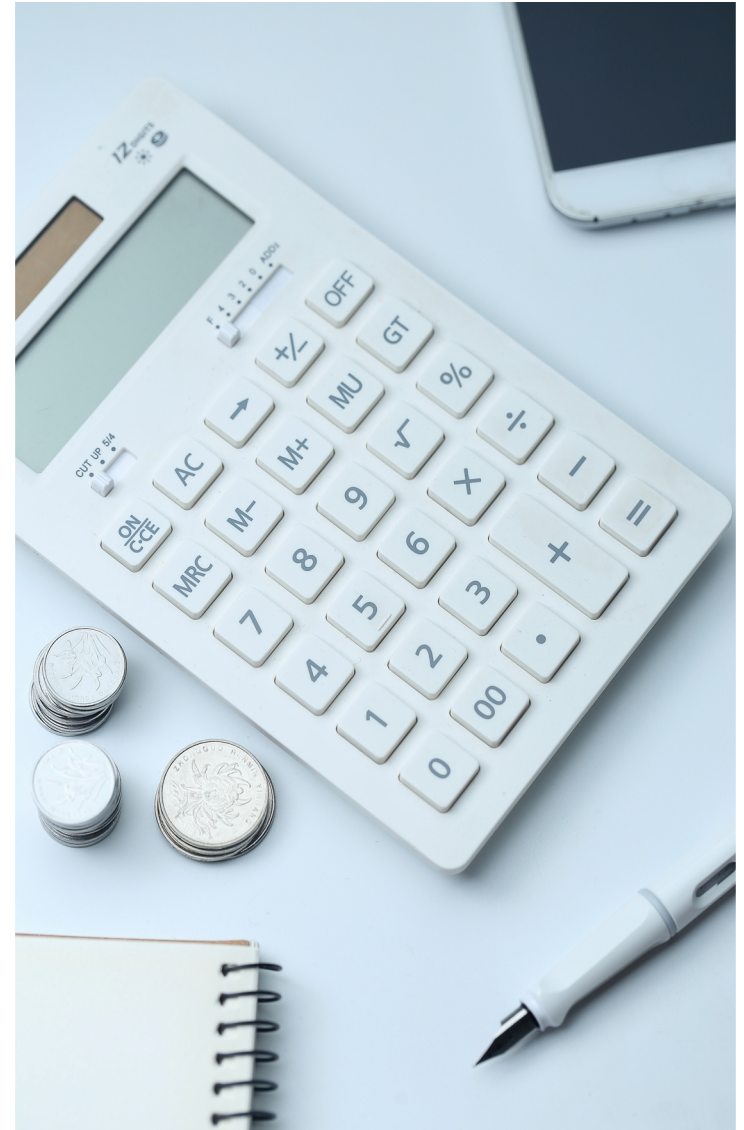
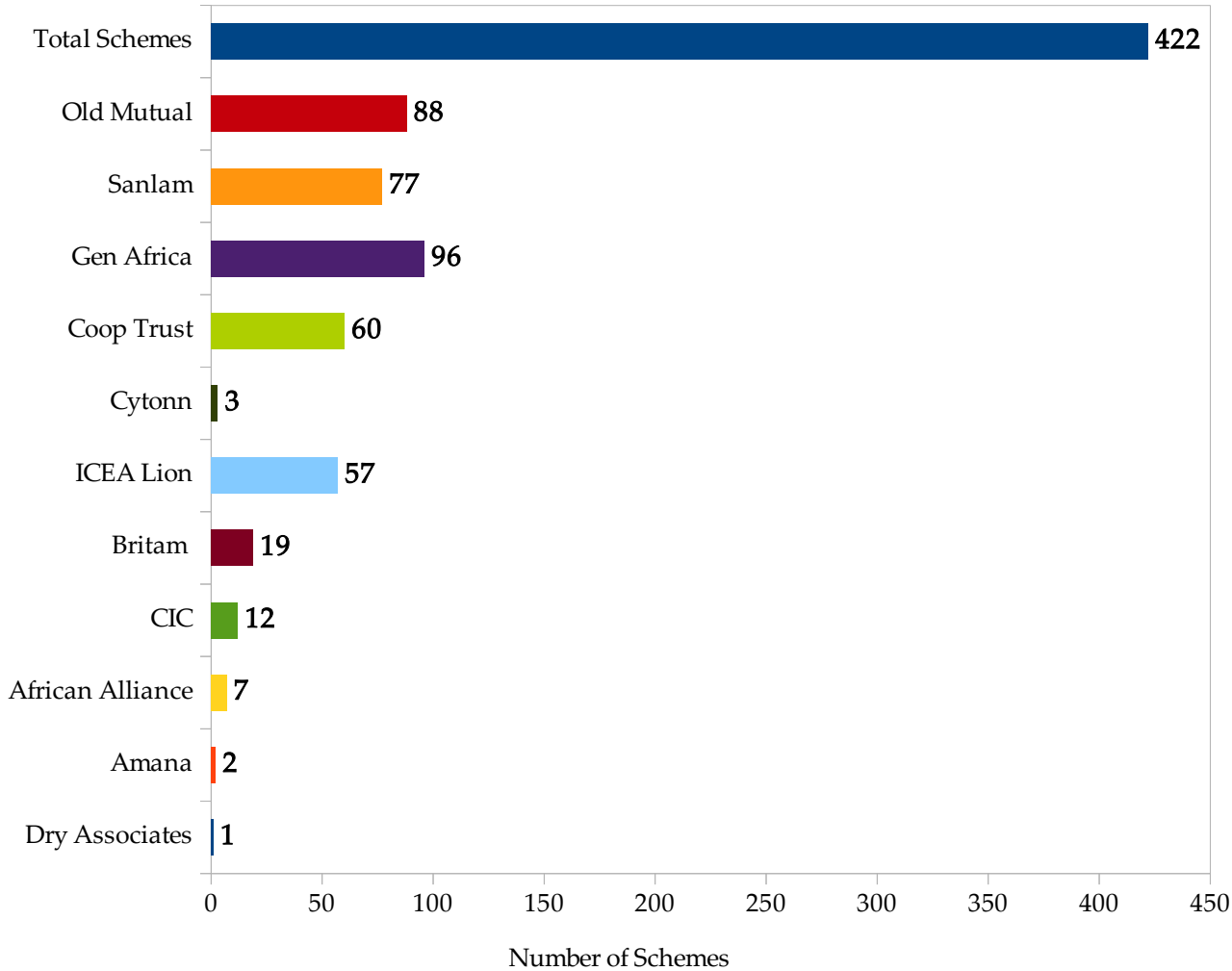


■ Small Schemes ■ Medium Schemes
■ Large Schemes ■ Mega Schemes

Total Fund Value of Participating Schemes



Schemes Participation Per Fund Manager

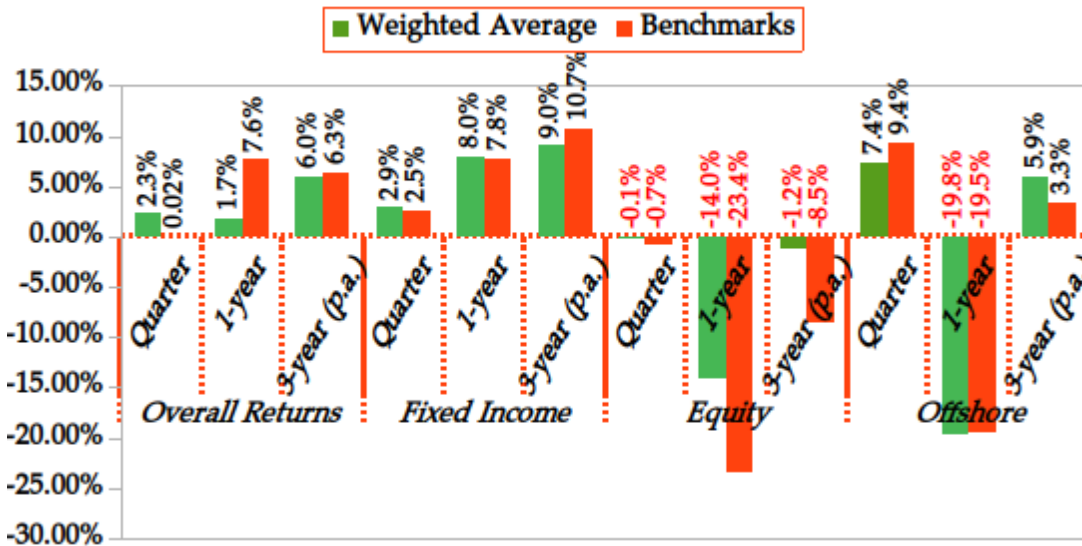


PERFORMANCE ANALYSIS - ALL SCHEMES ANALYSIS

	Overall Returns			Fixed Income			Equity			Offshore		
	Quarter	1-year	3-year (p.a.)	Quarter	1-year	3-year (p.a.)	Quarter	1-year	3-year (p.a.)	Quarter	1-year	3-year (p.a.)
Weighted Average	2.3%	1.7%	6.0%	2.9%	8.0%	9.0%	-0.1%	-14.0%	-1.2%	7.4%	-19.8%	5.9%
Average	2.3%	2.4%	7.2%	2.8%	8.2%	10.6%	-0.01%	-14.5%	-1.9%	6.3%	-23.2%	7.9%
Highest	4.2%	10.2%	11.1%	4.2%	13.6%	33.1%	46.0%	79.1%	27.4%	46.0%	51.3%	64.7%
Lowest	-0.3%	-16.7%	-4.0%	0.2%	3.7%	2.9%	-8.1%	-33.5%	-10.3%	-5.7%	-39.4%	-12.8%
50 th Percentile	2.3%	2.4%	7.2%	2.9%	8.1%	10.5%	-0.3%	-15.1%	-3.0%	4.1%	-27.9%	7.6%
Benchmarks	0.02%	7.6%	6.3%	2.5%	7.8%	10.7%	0.02%	-23.4%	-8.5%	9.4%	-19.5%	3.3%

OVERALL RETURN BY ASSET CATEGORY

All Schemes Average Returns



Schemes posted a weighted average return of 2.3%, 1.7% and 6.0% for the quarter, 1-year and 3-year respectively compared to 0.7%, 11.6% and 10.0% recorded in Q4 2021. This quarter recorded mixed performance compared to last quarter's 3.0%, 0.1% and 6.1% in the quarter, 1-year and 3-year performance respectively.

Equities recorded mixed performance of -0.1%, -14.0% and -1.2% for the quarter, 1-year and 3-year periods compared to -4.4%, 16.9% and 9.9% in Q4 2021.

Offshore's performance recorded mixed performance of 7.4%, -19.8% and 5.9% for the quarter, 1-year and 3-year periods compared to 7.2%, 18.5% and 21.4% in Q4 2021.

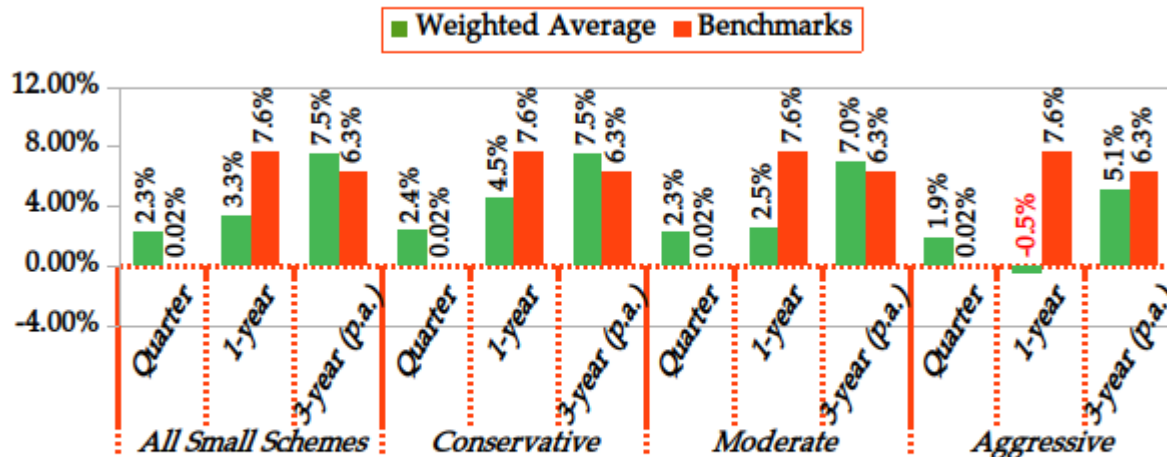
Fixed income performance increased over the quarter to 2.9%, 8.0% and 9.0% for the quarter, 1-year and 3-year periods compared to 2.3%, 6.7% and 7.5% in Q2 2022. The quarter returns were an increase from 2.2% in Q4 2021 while the 1-year and 3-year returns were a decrease from 9.6% and 9.7% reported in Q4 2021.

SMALL SCHEMES ANALYSIS

	All Small Schemes			Conservative			Moderate			Aggressive		
	Quarter	1-year	3-year (p.a)	Quarter	1-year	3-year (p.a)	Quarter	1-year	3-year (p.a)	Quarter	1-year	3-year (p.a)
Weighted Average	2.3%	3.3%	7.5%	2.4%	4.5%	7.5%	2.3%	2.5%	7.0%	1.9%	-0.5%	5.1%
Average	2.3%	3.8%	7.4%	2.3%	5.2%	8.4%	2.3%	2.9%	6.8%	1.5%	-1.7%	4.9%
Highest	3.4%	10.2%	11.1%	3.1%	10.2%	11.1%	3.4%	8.6%	8.5%	2.1%	0.1%	5.4%
Lowest	-0.3%	-5.3%	4.0%	-0.3%	-3.6%	5.3%	0.5%	-0.1%	4.0%	0.1%	-5.3%	4.1%
50 th Percentile	2.3%	3.1%	7.4%	2.4%	3.3%	7.6%	2.3%	2.1%	7.1%	2.1%	-0.04%	5.1%
Overall Inflation	0.02%	7.6%	6.3%	0.02%	7.6%	6.3%	0.02%	7.6%	6.3%	0.02%	7.6%	6.3%

OVERALL RETURNS

Small Schemes Overall Average Returns



Small Schemes recorded a weighted average return of 2.3%, 3.3% and 7.5% for the quarter, 1-year and 3-year annualized periods. This is in comparison to 3.1%, 1.9% and 8.3% recorded in Q3 2022, indicating a decline over the quarter and 3-year return periods. The 1-year and 3-year return for the period is also a decline compared to 11.2% and 9.2% recorded in Q4 2021.

Conservative Small Schemes had a better performance on average.

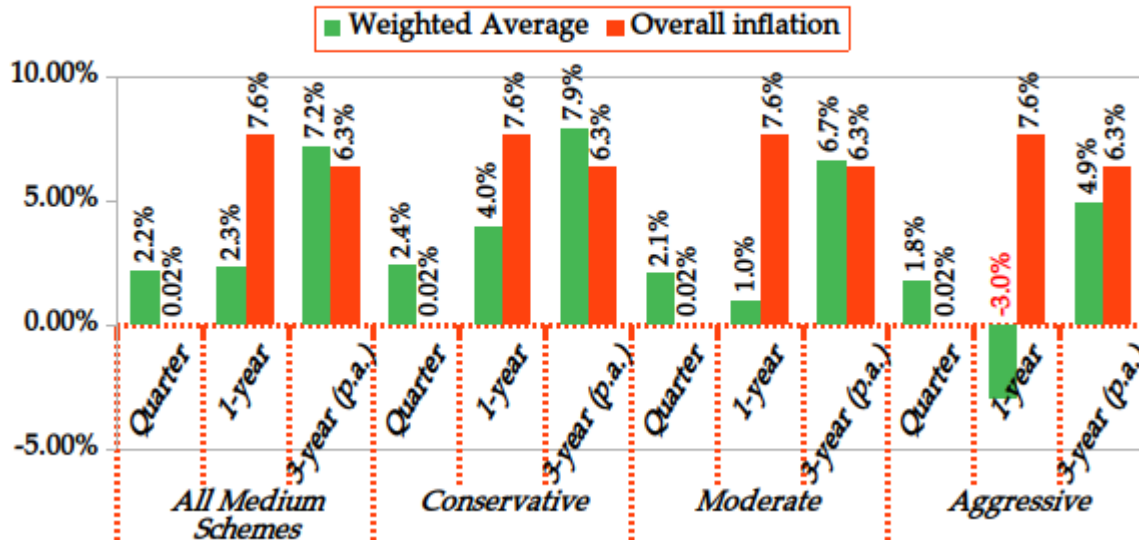
The overall All Small Schemes returns were above the benchmark for the quarter and 3-year period, but was below the benchmark for the 1-year period.

MEDIUM SCHEMES ANALYSIS

	All Medium Schemes			Conservative			Moderate			Aggressive		
	Quarter	1-year	3-year (p.a)	Quarter	1-year	3-year (p.a)	Quarter	1-year	3-year (p.a)	Quarter	1-year	3-year (p.a)
Weighted Average	2.2%	2.3%	7.2%	2.4%	4.0%	7.9%	2.1%	1.0%	6.7%	1.8%	-3.0%	4.9%
Average	2.3%	2.4%	7.2%	2.4%	3.9%	7.8%	2.1%	1.0%	6.6%	1.8%	-2.7%	4.9%
Highest	3.8%	8.8%	10.1%	3.8%	8.8%	9.9%	3.1%	4.5%	10.1%	2.1%	-0.03%	4.9%
Lowest	1.0%	-16.7%	-4.0%	2.0%	1.4%	6.8%	1.0%	-16.67%	-4.0%	1.5%	-5.4%	4.9%
50 th Percentile	2.3%	2.9%	7.4%	2.4%	3.3%	7.6%	2.1%	0.9%	6.8%	1.8%	-2.7%	4.9%
Overall Inflation	0.02%	7.6%	6.3%	0.02%	7.6%	6.3%	0.02%	7.6%	6.3%	0.02%	7.6%	6.3%

OVERALL RETURNS

Medium Schemes Overall Average Returns



All Medium Schemes had lower returns in Q4 than Q3. The weighted average return was 2.2%, 2.3% and 7.2% for the quarter, 1-year and 3-year annualized periods respectively compared to 3.0%, 1.0% and 8.2% recorded in Q3 2022 and 0.6%, 11.5% and 10.2% recorded in Q4 2021.

Conservative Medium Schemes had the highest returns of 2.4%, 4.0% and 7.9% over the quarter, 1-year and 3-year periods respectively. This is compared to 2.8%, 2.8% and 8.6% in Q3 2022.

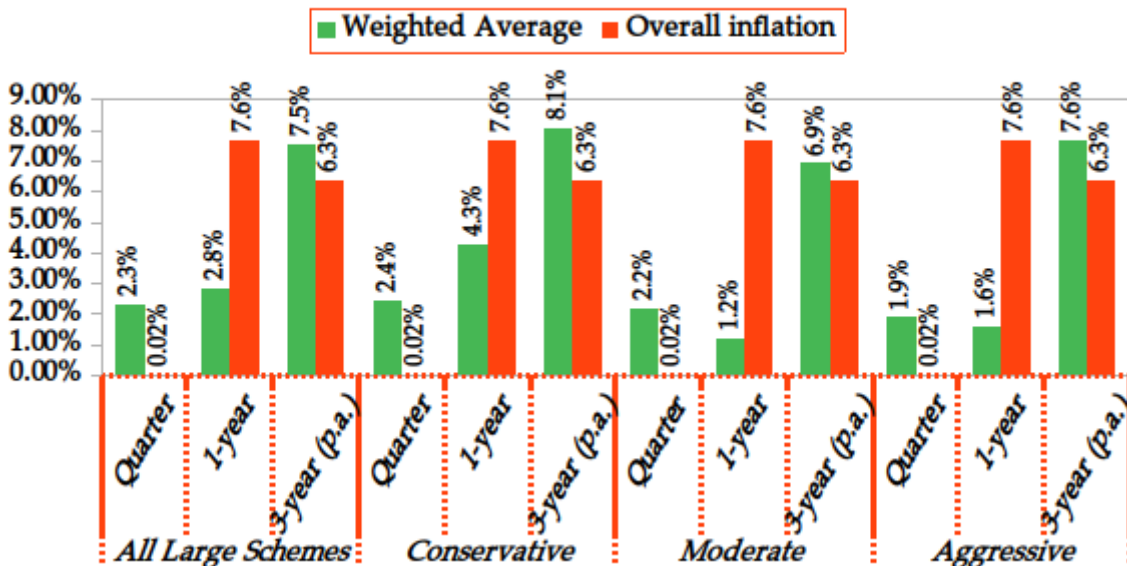
Moderate Medium Schemes recorded returns were 2.1%, 1.0% and 6.7% in the quarter, 1-year and 3-year periods from 3.2%, -0.6% and 7.9% returns in Q3 2022.

Aggressive Medium Schemes recorded returns were 1.8%, -3.0% and 4.9% in the quarter, 1-year and 3-year periods from 3.8%, -5.6% and 5.8% respectively in Q3 2022.

LARGE SCHEMES ANALYSIS

	All Large Schemes			Conservative			Moderate			Aggressive		
	Quarter	1-year	3-year (p.a.)	Quarter	1-year	3-year (p.a.)	Quarter	1-year	3-year (p.a.)	Quarter	1-year	3-year (p.a.)
Weighted Average	2.3%	2.8%	7.5%	2.4%	4.3%	8.1%	2.2%	1.2%	6.9%	1.9%	1.6%	7.6%
Average	2.3%	2.6%	7.4%	2.4%	4.1%	7.9%	2.1%	1.2%	6.9%	1.9%	1.6%	7.6%
Highest	3.7%	7.7%	10.4%	3.2%	7.7%	10.4%	3.7%	4.0%	8.5%	1.9%	1.6%	7.6%
Lowest	1.1%	-1.8%	5.5%	1.8%	1.7%	6.4%	1.1%	1.8%	5.5%	1.9%	1.6%	7.6%
50 th Percentile	2.2%	2.5%	7.3%	2.4%	3.5%	7.8%	2.1%	1.3%	6.8%	1.9%	1.6%	7.6%
Overall Inflation	0.02%	7.6%	6.3%	0.02%	7.6%	6.3%	0.02%	7.6%	6.3%	0.02%	7.6%	6.3%

Large Scheme Overall Average Returns



OVERALL RETURNS

All Large Schemes quarter and 3-year returns decreased to **2.3%** and **7.5%** in Q4 2022 from **2.9%** and **8.4%** respectively in Q3 2022. The 1-year average weighted returns increased to **2.8%** from **1.1%** in Q3 2022. The quarter, 1-year and 3-year returns from Q4 2021 are **0.8%**, **11.9%** and **7.6%** recorded Q4 2021.

Conservative Large Schemes had the best returns for the quarter, 1-year and 3-year periods. The returns were **2.4%**, **4.3%** and **8.1%** over the quarter, 1-year and 3-year periods from **1.3%**, **10.9%** and **8.0%** in Q4 2021.

Moderate Large Schemes recorded returns of **2.2%**, **1.2%** and **6.9%** over the quarter, 1-year and 3-year periods from **3.0%**, **0.6%** and **8.1%** in Q3 2022 and **0.6%**, **12.3%** and **7.3%** in Q4 2021.

Aggressive Large Schemes recorded returns of **1.9%**, **1.6%** and **7.6%** for the quarter, 1-year and 3-year periods compared to **2.7%**, **0.3%** and **8.5%** in Q3 2022.

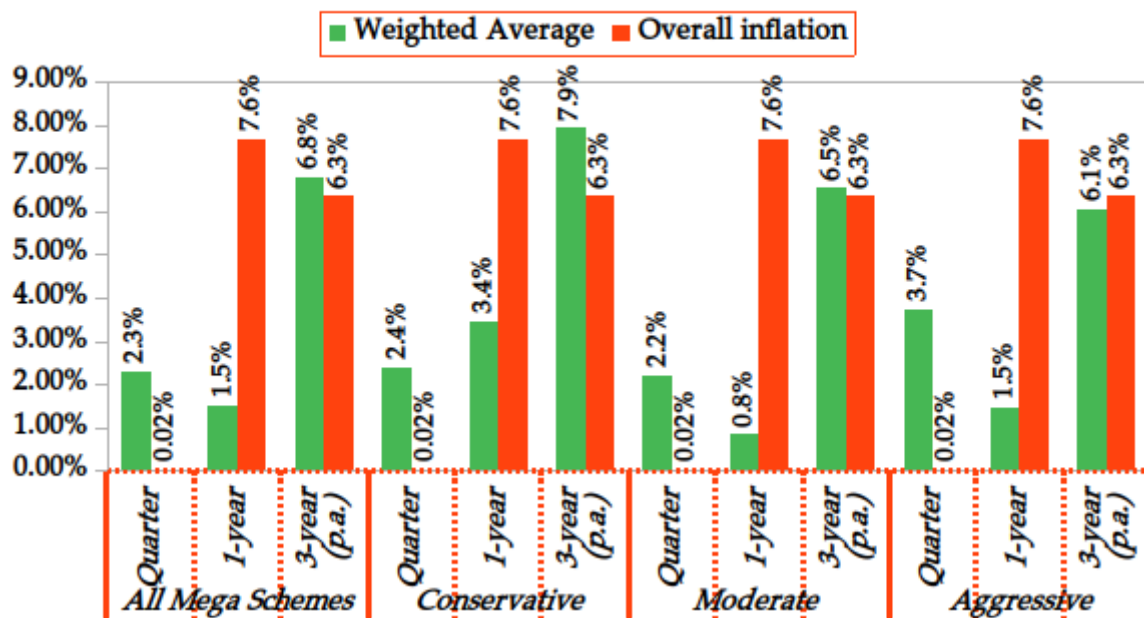
The overall Large Schemes performance were above the benchmarks across the quarter and 3-year periods.

MEGA SCHEMES ANALYSIS

	All Mega Schemes			Conservative			Moderate			Aggressive		
	Quarter	1-year	3-year (p.a.)	Quarter	1-year	3-year (p.a.)	Quarter	1-year	3-year (p.a.)	Quarter	1-year	3-year (p.a.)
Weighted Average	2.3%	1.5%	6.8%	2.4%	3.4%	7.9%	2.2%	0.8%	6.5%	3.7%	1.5%	6.1%
Average	2.3%	1.5%	6.9%	2.4%	3.8%	7.9%	2.2%	0.8%	6.6%	3.3%	1.4%	6.1%
Highest	4.2%	9.4%	9.4%	3.0%	9.4%	9.4%	3.9%	4.4%	8.1%	4.2%	1.6%	6.1%
Lowest	1.1%	-5.4%	4.4%	1.7%	0.1%	6.2%	1.1%	5.4%	4.4%	2.3%	1.2%	6.1%
50 th Percentile	2.3%	1.3%	6.9%	2.4%	3.5%	7.8%	2.3%	0.8%	6.7%	3.3%	1.4%	6.1%
Overall Inflation	0.02%	7.6%	6.3%	0.02%	7.6%	6.3%	0.02%	7.6%	6.3%	0.02%	7.6%	6.3%

OVERALL RETURNS

Mega Schemes Overall Average Returns



All the Mega Schemes weighted average return decreased over the quarter and the 3-year periods to record returns of **2.3%** and **6.8%** from **3.1%** and **7.8%** respectively recorded in the last quarter. The 1-year returns increased to **1.5%** from **-0.1%** recorded in Q3 2022. This was a general increase from **0.7%** and **6.5%** returns for the quarter and 3-year periods respectively reported in Q4 2021.

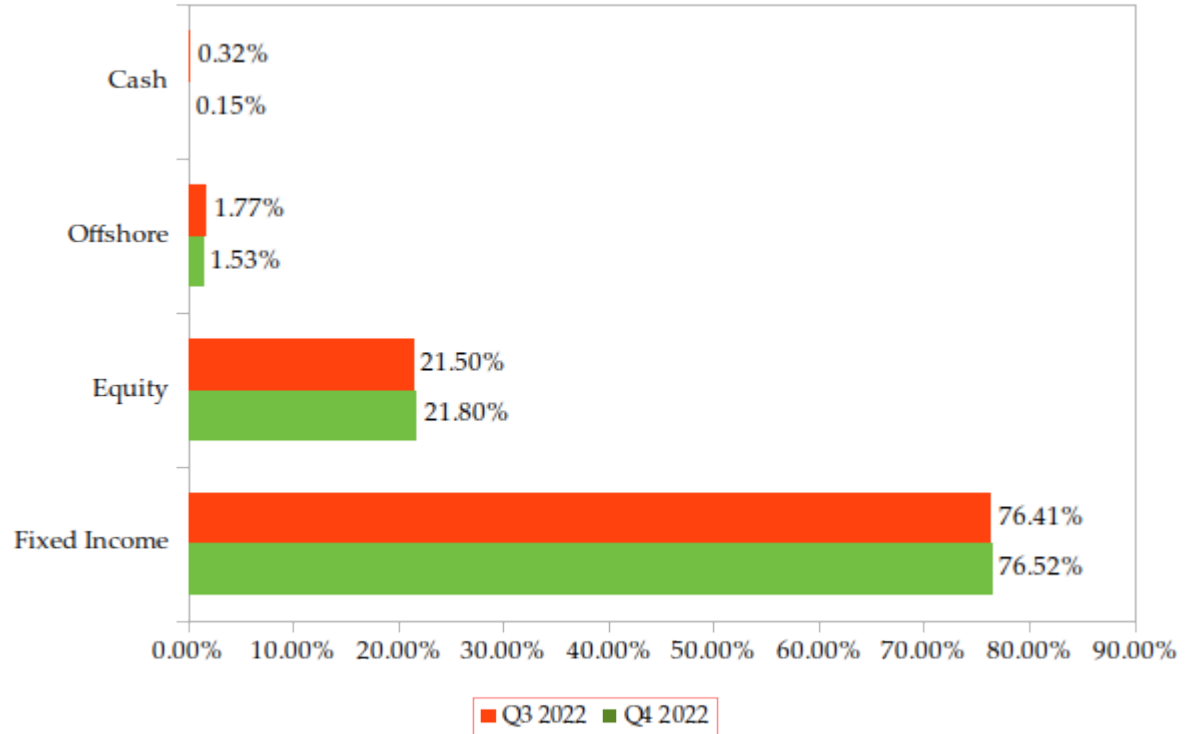
Conservative mega schemes recorded the best performance over the 3-year period.

Aggressive Mega Schemes had the best performance over the quarter and recorded the worst performance over the 3-year period.

All Mega Schemes weighted return over performed the benchmark across the quarter and the 3-year periods.

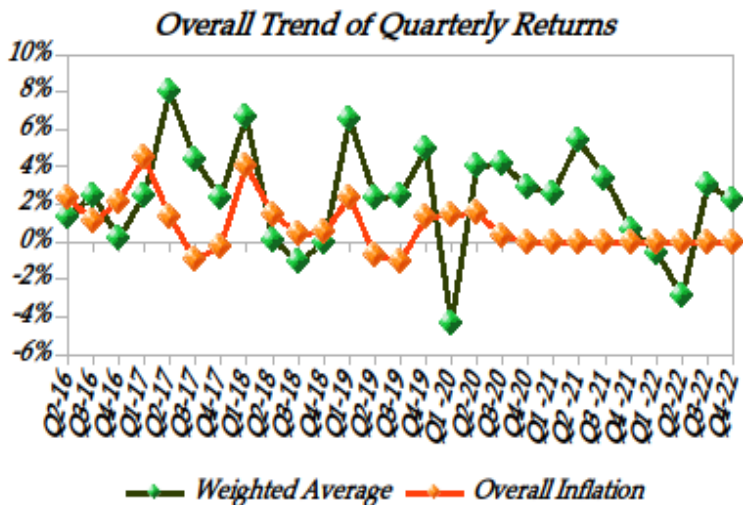
Asset Category Distribution

Asset Category Distribution				
	Fixed Income	Equity	Offshore	Cash
Weighted Average	76.52%	21.80%	1.53%	0.15%
Average	78.10%	20.49%	5.14%	0.39%
Highest	100.00%	83.59%	99.16%	6.67%
Lowest	0.84%	0.01%	0.02%	-2.85%
Median	78.96%	20.66%	3.10%	0.12%



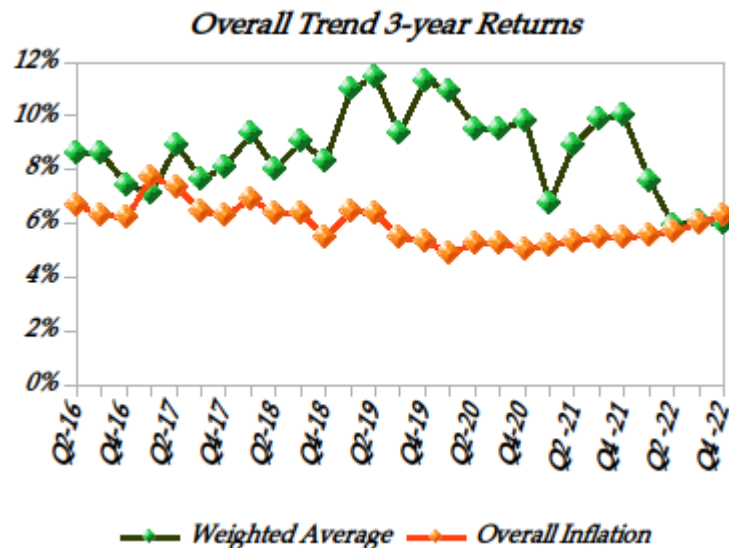
RETURN TRENDS

Overall Return Trend



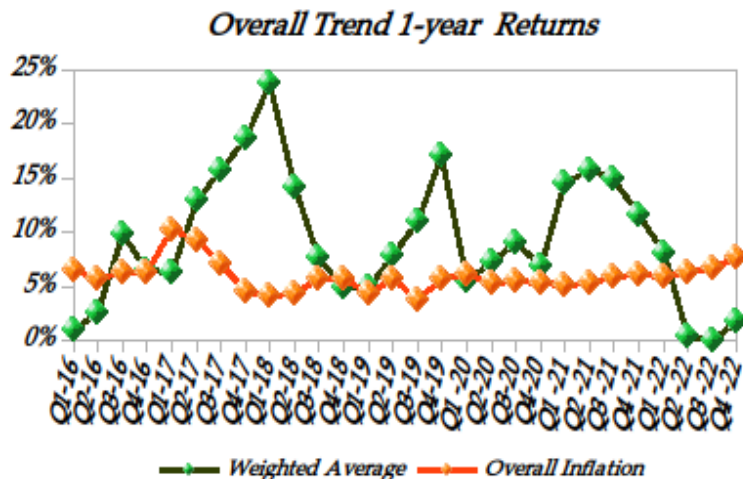
Since Q2-16, overall quarter returns have been above inflation except in Q4-16, Q1-17, Q2-18, Q3-18, Q4-18, Q1-20, Q1-22 and Q2-22 where inflation was higher.

Q4-22 overall Quarter return outperformed inflation but declined from Q3-22. This is attributable to investor concern driven by continuing high inflation, geopolitical tensions and tightening monetary policy.



From Q1-16, the overall 3-year annualized return has remained above inflation benchmark except in Q1-17 and Q4-22. The return decreased over the quarter to 6.0% from 6.1% in Q3-22 and 10.0% in Q4-21.

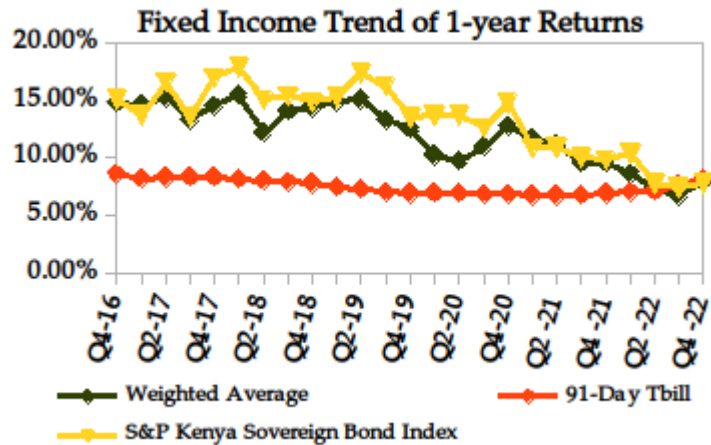
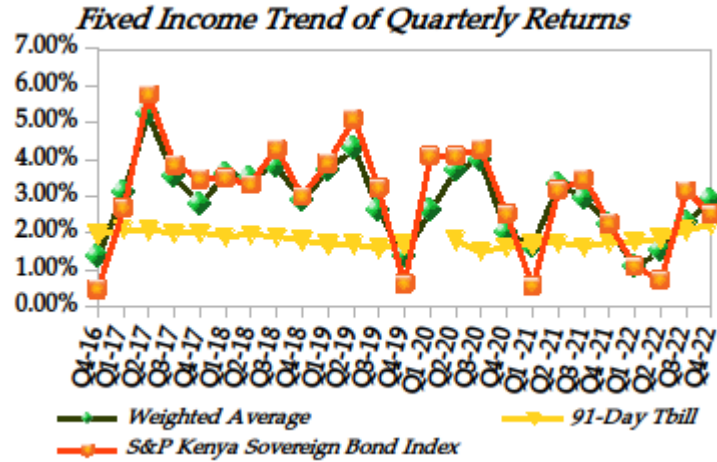
Since Q2-16's return of 8.64%, 2019 had the best returns over most quarters of 11.00% in Q1-19, 11.42% in Q2-19 and 11.3% in Q4-19.



The variance between the quarterly returns and inflation have been elevated.

Since Q2 2016 the overall trend of 1-year return has generally outperformed the inflation benchmark except Q2-2016, Q1-2017, Q4-2018, Q1-2020, Q2-2022, Q3-2022 and Q4-2022. In the last three quarters overall return has under-performed inflation.

Fixed Income

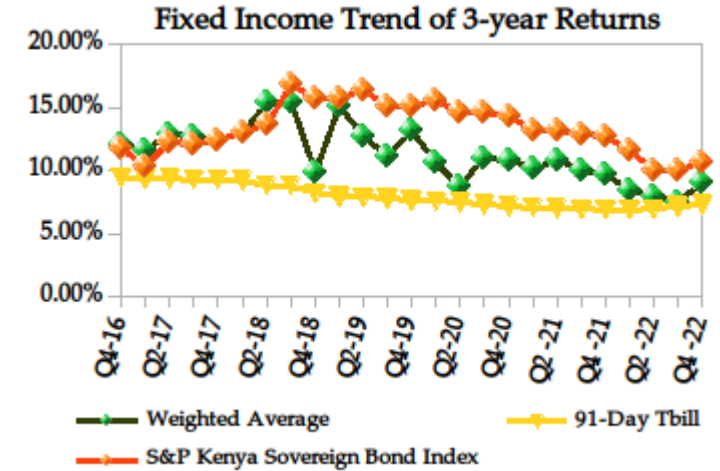


The quarterly fixed income returns have been volatile and generally mirrored the S&P Kenya benchmark.

Since Q2-16 the lowest realized quarterly fixed income return was in Q1-22 at 1.1%, Q4-16 at 1.39%, Q4-19 at 1.4% and Q1-21 at 1.6%. The highest return was 5.4% in Q3-16.

The 1-year fixed income returns have been more stable than the quarterly returns and have remained consistent with the S&P Kenya benchmark.

The highest realized 1 year fixed income return was 20.54% in Q3-16. Q4-22 return of 8.0% was an increase from 6.7% in Q3-22.



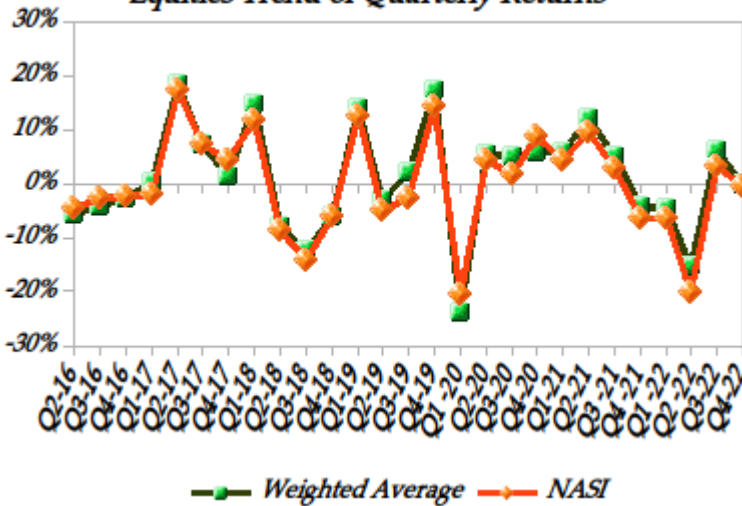
Since Q2-2021, the 3-year annualized returns have steadily declining in consecutive quarters.

Since Q2-16 the highest 3 year fixed income return was recorded in Q2-18 at 15.51%. Q4-22 return of 9.0% was an increase from 7.5% in Q3 2022.

Since Q3-18 the returns have under performed the S&P Kenya Sovereign Bond Index.

Equities Trend

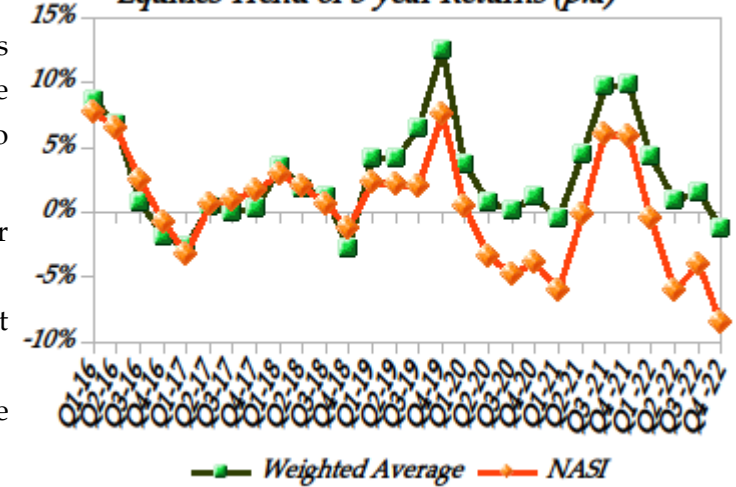
Equities Trend of Quarterly Returns



From Q2-16 quarterly equities returns have remained volatile but above the NASI benchmark index, except in Q2-16 to Q4-16, Q4-17, Q1-20 and Q4-20.

The weighted average equities return for all schemes have sharply decreased to -0.1% from 6.3% in Q3-22. The lowest quarterly equity return was in Q1-20 at -23.9% followed by Q2-22 at -15.4% while the highest was in Q2-17 at 18.32%.

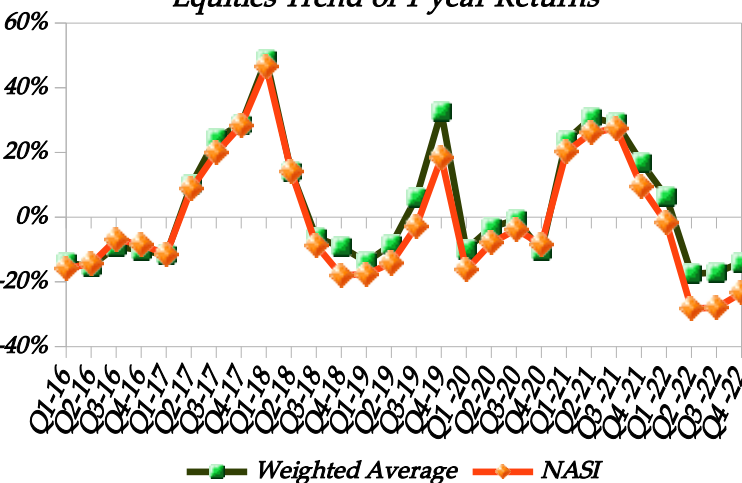
Equities Trend of 3 year Returns (p.a)



Since Q2-16 the highest 3 year return was 12.5% in Q4-19 while the lowest was in Q4-18 at -2.70%. From Q1-19 the 3-year equity trend has remained stable above the NASI benchmark index.

Increased sellofs by foreign investors due to interest rate hikes in developed economies resulted in decline in Equities over the last quarter which decreased from 1.5% in Q3-22 to -1.2% in Q4-22.

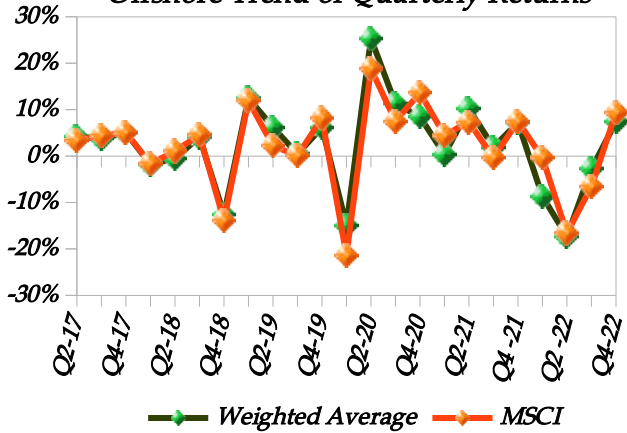
Equities Trend of 1 year Returns



The 1-year equities returns have also been volatile and remained above the NASI benchmark index, except in Q2-16 to Q1-17, Q2-18 and Q4-20. Highest equities returns were realized in Q1-18 at 48.70%, Q4-19 at 32.5%, Q1-21 at 23.8% and Q2-21 at 30.6%. The lowest return was in Q2-22 at -17.5%.

Offshore Trend

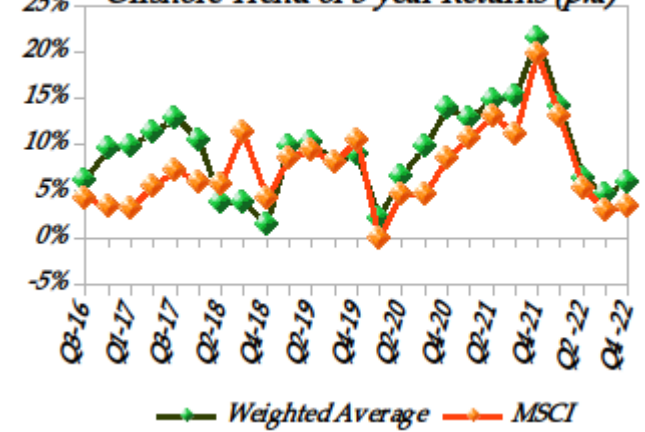
Offshore Trend of Quarterly Returns



The quarterly offshore returns have been volatile. They however have closely matched the benchmark performance outperforming it in certain quarters. In Q3 2022 the returns have been above the benchmark.

The rising global inflation coupled with interest rate hikes by global central banks to curb inflation have resulted in investor concerns. Weighted average quarter offshore returns increased quarter to quarter from -2.8% in Q3-22 to 7.4% in Q4-22. Since Q1-17 the highest return was 25.30% in Q2-20.

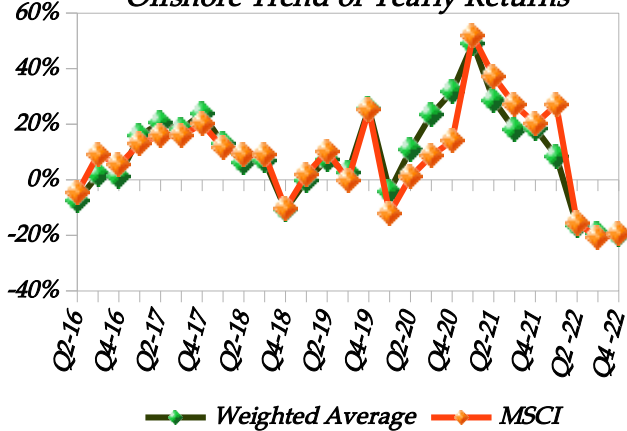
Offshore Trend of 3 year Returns (p.a)



The 3-year offshore returns have been volatile and closely matched the benchmark performance outperforming it in most quarters.

Despite rising global inflation coupled with tightening fiscal policy by central banks globally, 3-year offshore returns increased from 4.7% in Q3-22 to 5.9% in Q4-22. The highest weighted average return since Q1-17 was at 21.4% in Q4-21.

Offshore Trend of Yearly Returns



The highest offshore 1-year return on average for all schemes since Q2 2016 was in Q1-21 at 49.1% while the lowest was in Q4-22 at -19.8%. The returns in Q4-22 decreased to -19.8% from -19.2% in Q3-22.



	Quarter	1-Year	3-Years
Standard Deviation	0.45%	2.53%	1.19%
Tracking Error	0.02%	0.36%	0.06%
Information Ratio	112.31	-14.45	14.08%
Sharpe Ratio	2.27	-15.91	-1.91%

GLOSSARY

- 1) **Conservative Risk Profile:** An investing strategy that seeks to preserve an investment portfolio's value by investing a high proportion of assets in lower risk assets such as fixed-income and money market securities.
- 2) **Moderate Risk Profile:** An investing strategy that seeks to have a balanced proportion between low risk and high risk assets in the investment portfolio.
- 3) **Aggressive Risk Profile:** An investing strategy that seeks to maximize returns by investing a high proportion of the investment portfolio in high risk assets such as equities, offshore and property.
- 4) **Non-Interest Bearing Assets:** The total funds invested in equities, offshore and property. Also considered to be high risk assets.
- 5) **Interest Bearing Assets:** The total funds invested in government securities, fixed and time deposits, commercial paper, corporate bonds and call deposits. Also considered to be low risk assets.
- 6) **Information Ratio (IR):** Measures the ability of the schemes to generate excess returns relative to the benchmark (inflation). The higher the IR, the higher the probability of the schemes in beating the benchmark.
- 7) **Sharpe Ratio:** Measures the ratio of average return earned in excess of the risk free rate per unit of volatility or total risk.
- 8) **Standard Deviation:** A measure of the dispersion of returns from the mean.
- 9) **Tracking Error:** The difference between the returns of the schemes and that of the benchmark (inflation) the schemes are trying to beat.
- 10) **Weighted Average Returns:** The average returns weighted by the fund value or respective asset categories where appropriate.

DISCLAIMER

- This survey relies on the data provided by the fund managers of the participating schemes. The schemes whose data was deemed to be insufficient were not used.
- ACTSERV makes no representation or warranties of any kind on completeness, accuracy or reliability with regards to this report and may not be held liable for any action taken by any party based on the information contained herein.
- The survey does not cover all schemes in the country. However, the schemes covered are a representative sample of all the schemes in terms of both fund value and number.
- ACTSERV would like to thank the participating schemes for the help they accorded in preparing this survey.

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