

**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 second quarter of 2021, a sample size of 421 schemes with a total fund value of about Kshs. 890 Billion (excluding property) were analyzed. The total fund value of the sample including property and cash was 990 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:

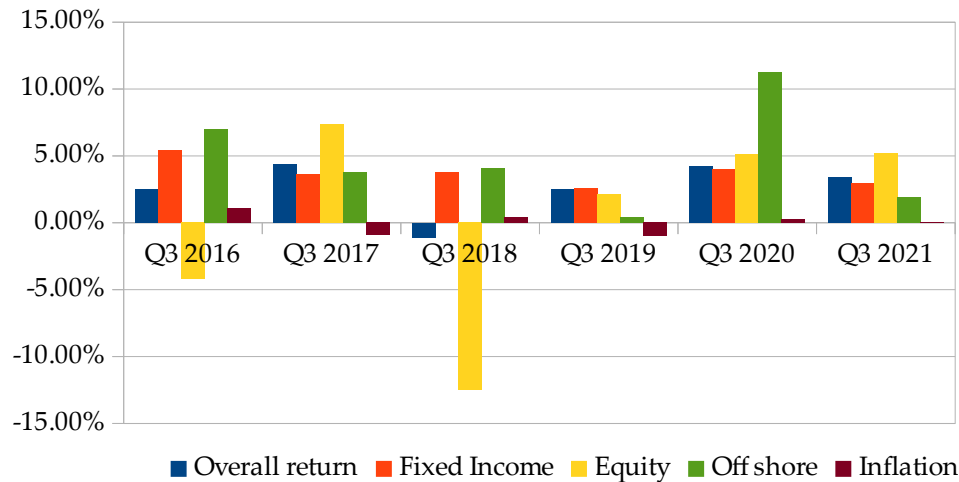
- Investment Consulting
- Retirement Fund Consulting
- Post Retirement Medical Consulting
- Life Insurance Consulting
- General and Health Care Insurance Consulting
- Management Consulting
- IT Services and Enterprise Risk Management

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QUARTER SUMMARY	QUARTER (3 – MONTHS)				
	Q3 2017	Q3 2018	Q3 2019	Q3 2020	Q3 2021
Total Fund Value (Kshs. Bn)	571	740	756	768	890
Sample Size	343	418	420	383	421
Overall Return	4.4%	-1.1%	2.5%	4.2%	3.4%
Fixed income	3.6%	3.8%	2.6%	4.0%	2.9%
Equity	7.4%	-12.5%	2.1%	5.1%	5.2%
Off Shore	3.8%	4.1%	0.4%	11.3%	1.9%
Inflation	-0.9%	0.4%	-1.0%	0.3%	0.02%

Quarterly Figures All Schemes



Overall returns computed for the quarter ending 30th September 2021 was **3.4%** compared to **4.2%** recorded in the same quarter last year and **2.5%** in Q3 2019.

The performance was largely driven by positive returns in equities of **5.2%** from **5.1%** in Q3 2020. The positive returns were attributable to an increase in equities from the Q3 2020 majorly as a result of the gradual economic recovery as investor sentiment improvement due to the distribution of the COVID-19 vaccine.

Fixed income and offshore asset classes declined to **2.9%**, and **1.9%** respectively from **4.0%**, and **11.3%** respectively in Q3 2020. The decline in fixed income was attributable to tightened liquidity in the money market. The decline in offshore performance was attributable to inflation concerns and supply shortages coupled with increased demand.



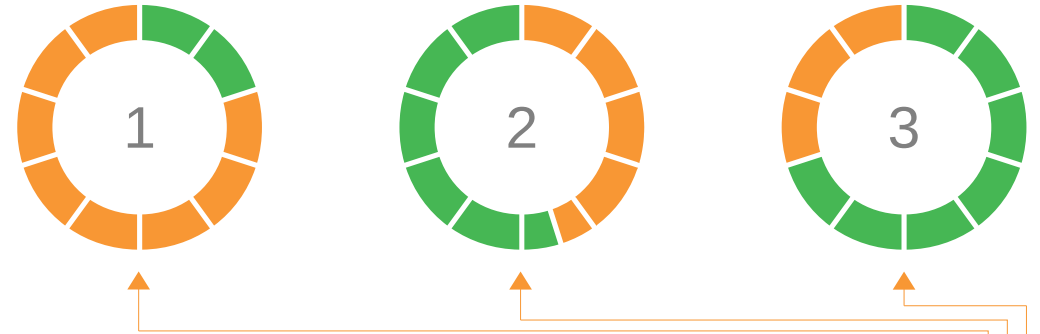
RISK PROFILING

RISK PROFILE

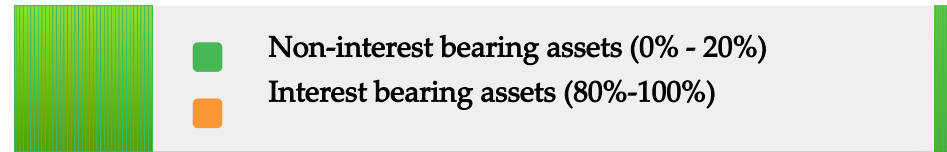
Suggested Asset Allocation Breakdown

- 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.

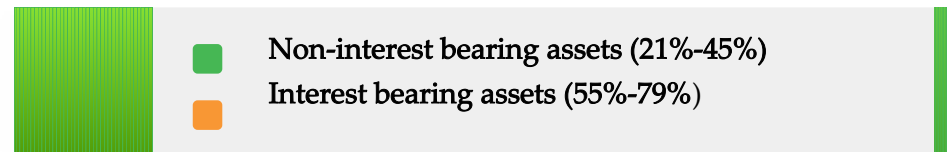
RISK PROFILE CATEGORIES



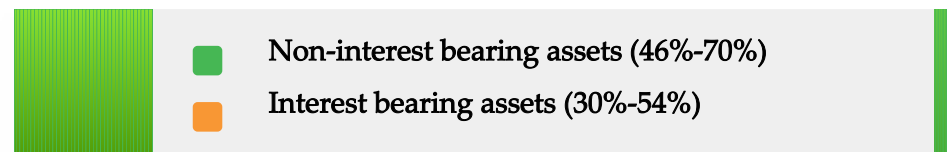
Conservative Risk Profile



Moderate Risk Profile



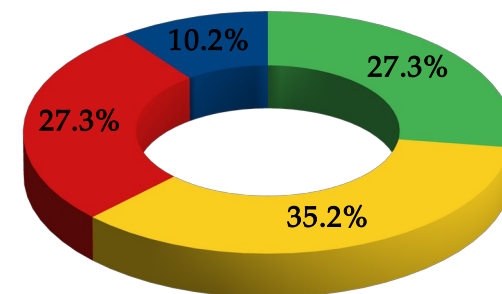
Aggressive Risk Profile



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	14	33%	495,591,835	21%
		Moderate	29	67%	1,898,670,892	79%
		Aggressive	0	0%	0	0%
		Total	43	10.2%	2,394,262,726	0.3%
Medium Schemes	100 - 500 Million	Conservative	16	14%	4,834,796,619	15%
		Moderate	98	85%	26,918,202,010	84%
		Aggressive	1	1%	335,516,948	1%
		Total	115	27.3%	32,088,515,576	3.6%
Large Schemes	500 Million – 2 Billion	Conservative	31	21%	35,372,430,205	23%
		Moderate	114	77%	114,664,789,796	75%
		Aggressive	3	2%	3,128,982,991	2%
		Total	148	35.2%	153,166,202,992	17.2%
Mega Schemes	Over 2 Billion	Conservative	12	10%	65,566,356,934	9%
		Moderate	100	87%	578,854,008,174	82%
		Aggressive	3	3%	58,363,046,850	8%
		Total	115	27.3%	702,783,411,959	78.9%
		OVERALL	421	100%	890,432,393,253	100%

Number of Participating Schemes



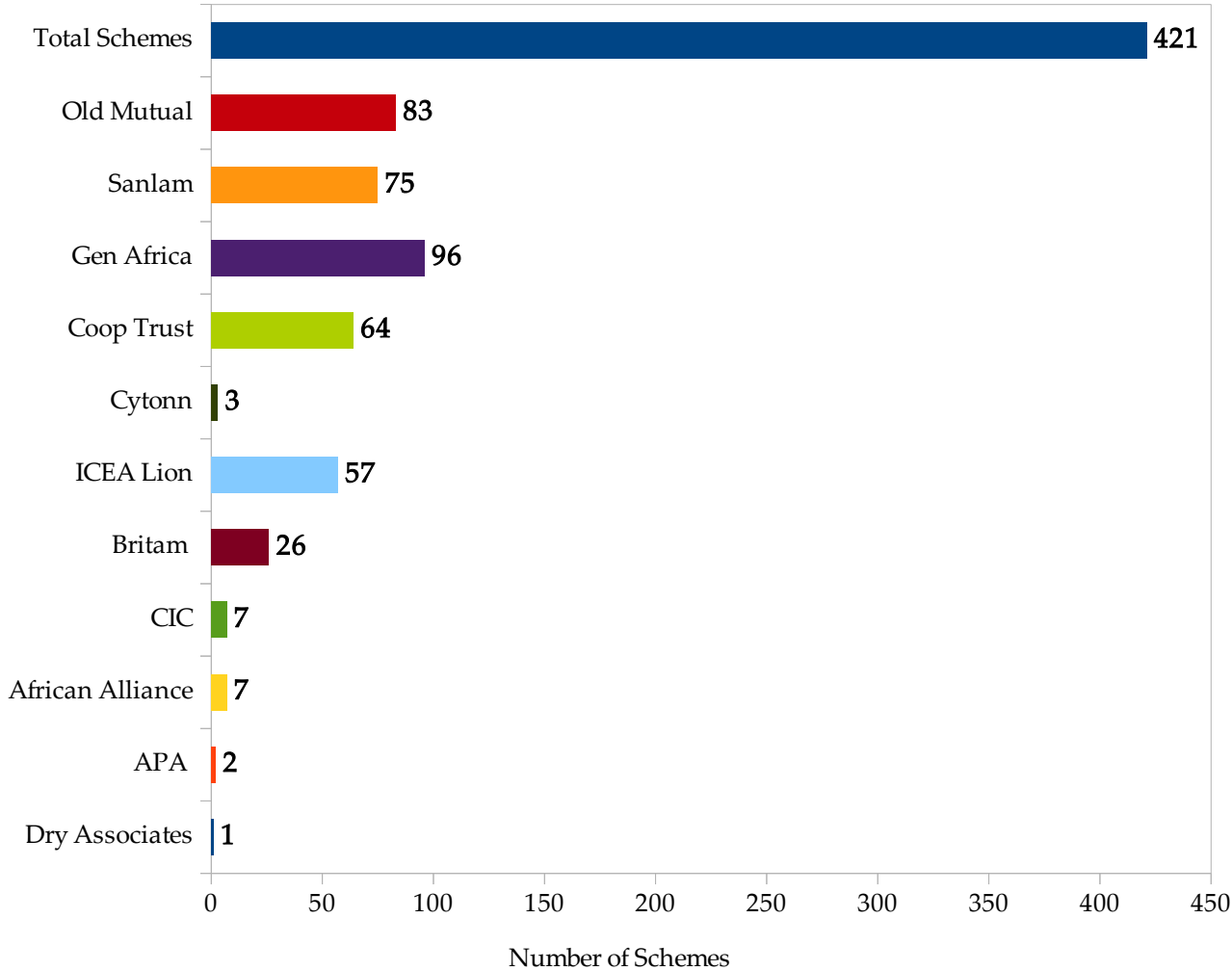
■ Small Schemes ■ Medium Schemes
■ Large Schemes ■ Mega Schemes

Total Fund Value of Participating Schemes



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

Schemes Participation Per Fund Manager

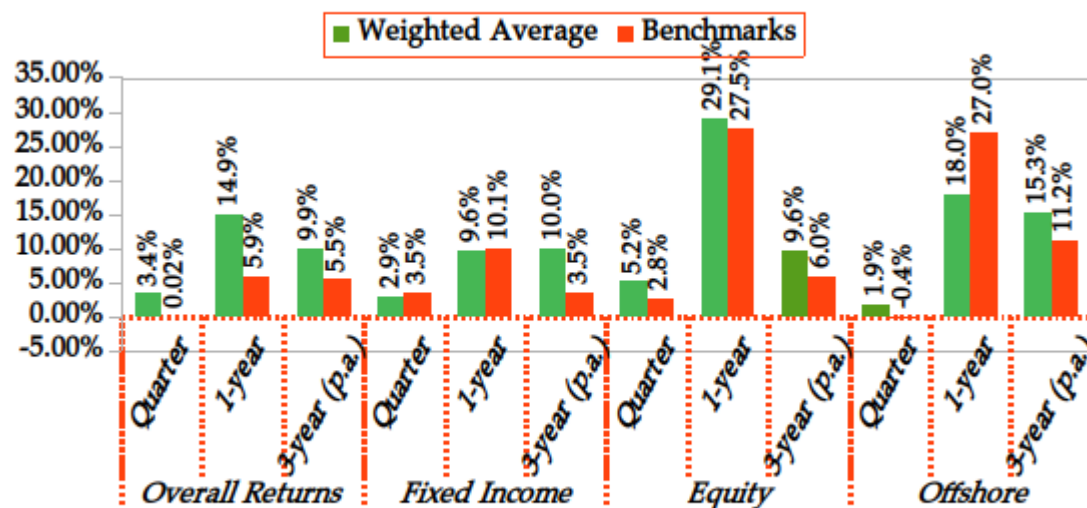


PERFORMANCE ANALYSIS - ALL SCHEMES ANALYSIS

	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	3.4%	14.9%	9.9%	2.9%	9.6%	10.0%	5.2%	29.1%	9.6%	1.9%	18.0%	15.3%
Average	3.3%	16.0%	12.0%	2.8%	10.2%	12.2%	5.1%	31.4%	11.8%	1.9%	19.6%	17.2%
Highest	5.3%	28.9%	13.9%	5.5%	17.7%	14.2%	9.6%	72.4%	26.2%	8.1%	51.1%	46.3%
Lowest	1.5%	5.9%	3.7%	1.3%	6.3%	6.9%	-1.2%	6.9%	-23.5%	-9.1%	-1.7%	-0.4%
50 th Percentile	3.4%	15.1%	12.1%	2.8%	10.3%	12.2%	5.2%	31.9%	12.3%	2.5%	20.4%	20.0%
Benchmarks	0.02 %	5.9%	5.5%	3.5%	10.1%	3.5%	2.8%	27.5%	6.0%	-0.4%	27.0%	11.2%

OVERALL RETURN BY ASSET CATEGORY

All Schemes Average Returns



Schemes posted a weighted average return of **3.4%**, **14.9%** and **9.9%** in Q3 2021 for the quarter, 1-year and 3-year respectively compared to **5.4%**, **15.8%** and **8.9%** in Q2 2021.

Fixed income decreased over the quarter to **2.9%**, **9.6%** and **10.0%** compared to **3.3%**, **11.2%** and **10.8%** in Q2 2021 and **4.0%**, **11.0%** and **11.0%** in Q3 2020.

Equities had mixed performance with **5.2%**, **29.1%** and **9.6%** for the quarter, 1-year and 3-year periods compared to **11.9%**, **30.7%** and **4.5%** in Q2 2021.

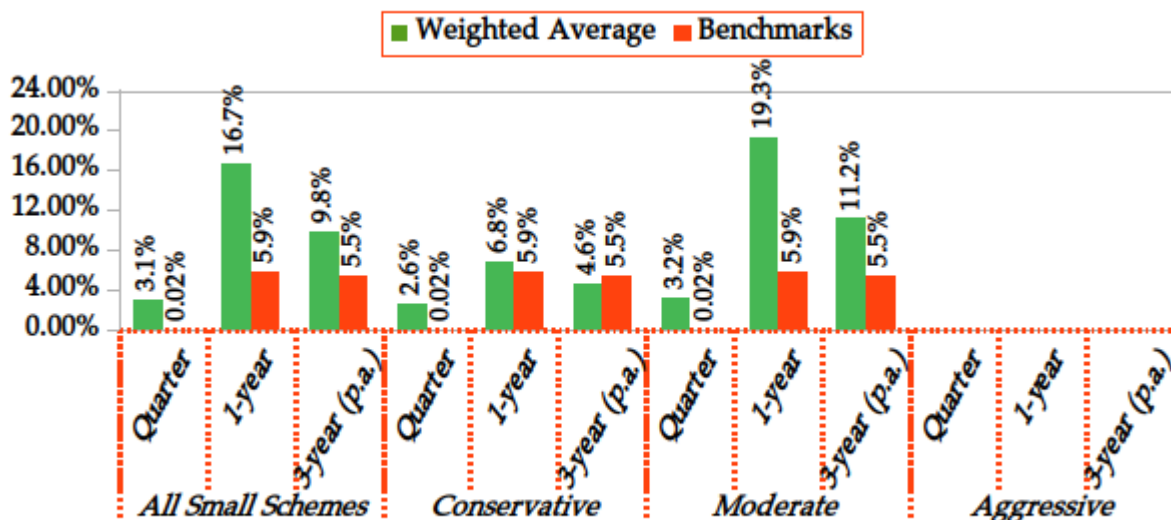
Offshore also had mixed but positive performance across all the periods posting **1.9%**, **18.0%** and **15.3%** compared to **10.2%**, **28.5%** and **14.7%** in Q2 2021.

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	3.1%	16.7%	9.8%	2.6%	6.8%	4.6%	3.2%	19.3%	11.2%			
Average	3.0%	16.2%	11.6%	2.5%	9.4%	10.1%	3.2%	18.8%	12.0%			
Highest	4.4%	28.8%	13.8%	3.4%	11.9%	13.0%	4.4%	28.8%	13.8%			
Lowest	1.5%	6.9%	3.7%	1.5%	6.9%	3.7%	2.1%	12.6%	9.7%			
50 th Percentile	3.0%	14.9%	11.9%	3.0%	13.0%	11.6%	3.1%	16.5%	12.0%			
Overall Inflation	0.02%	5.9%	5.5%	0.02%	5.9%	5.5%	0.02%	5.9%	5.5%			

OVERALL RETURNS

Small Schemes Overall Average Returns



Q3 2021 recorded a weighted average Small Schemes return of **3.1%**, **16.7%** and **9.8%** for the quarter, 1-year and 3-year annualized periods. This is in comparison to **5.3%**, **15.5%** and **8.7%** recorded in Q2 2021 indicating a mixed performance over the quarter, 1-year returns and 3-year returns.

Moderate Small Schemes had a better performance on average.

The overall All Small Schemes returns were above the benchmark across all the periods.

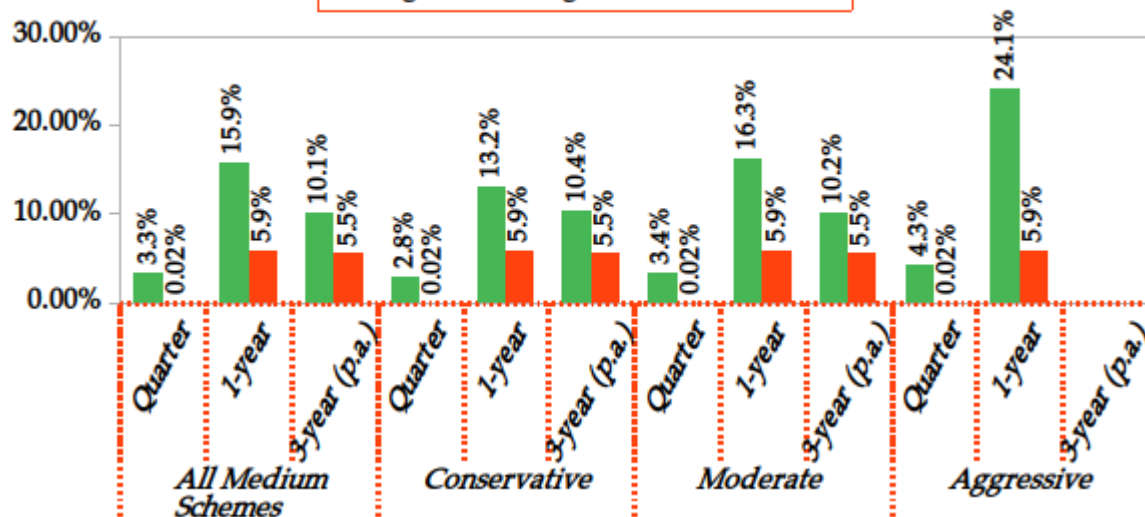
MEDIUM SCHEMES ANALYSIS

	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	3.3%	15.9%	10.1%	2.8%	13.2%	10.4%	3.4%	16.3%	10.2%	4.3%	24.1%	
Average	3.3%	16.8%	11.8%	2.9%	13.5%	11.3%	3.4%	17.2%	11.9%	3.3%	16.8%	
Highest	5.3%	26.5%	13.4%	3.5%	23.5%	12.9%	5.3%	26.5%	13.4%	4.3%	24.1%	
Lowest	1.8%	5.9%	5.5%	2.0%	8.1%	8.0%	1.8%	5.90%	5.50%	4.25%	24.08%	
50 th Percentile	3.3%	15.3%	12.1%	2.9%	13.0%	11.6%	3.4%	15.6%	12.2%	4.3%	24.1%	
Overall Inflation	0.02%	5.9%	5.5%	0.02%	5.9%	5.5%	0.02%	5.9%	5.5%	0.02%	5.9%	

OVERALL RETURNS

Medium Schemes Overall Average Returns

■ Weighted Average ■ Overall inflation



All Medium Schemes returns increased across all the periods except for the quarter's return. The weighted average returns were 3.3%, 15.9% and 10.1% for the quarter, 1-year and 3-year annualized periods respectively compared to 5.2%, 15.6% and 9.5% recorded in Q2 2021.

Conservative Medium Schemes returns were 2.8%, 13.2%, 10.4% from 4.3%, 13.5% and 9.9% for the quarter, 1-year and 3-year respectively, a decrease over the quarter and 1-year periods.

Moderate Medium Schemes recorded returns were 3.4%, 16.3% and 10.2% in the quarter, 1-year and 3-year from 5.4%, 16.0% and 9.5% returns in Q2 2021.

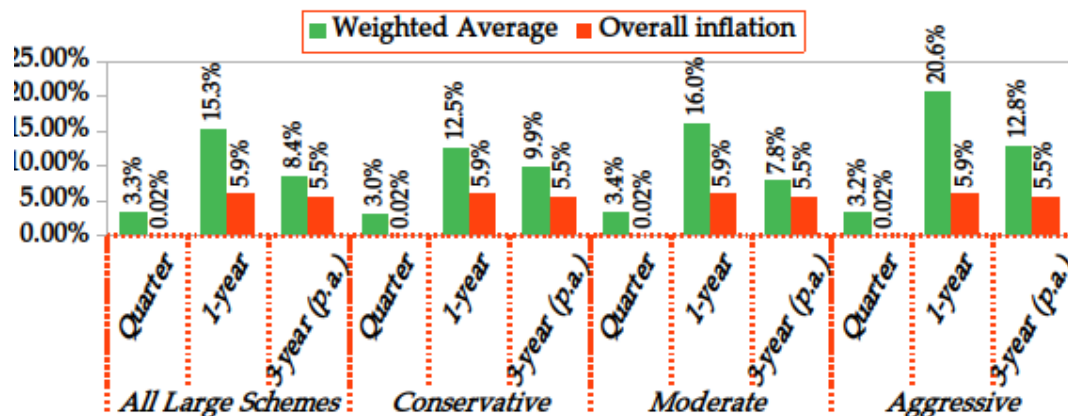
Aggressive Medium Schemes had the best performance over the quarter and 1-year returns. The returns were 4.3% and 24.1% over the quarter and 1-year periods. In Q2 2021 the returns were 9.1% and 24.6%.

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	3.3%	15.3%	8.4%	3.0%	12.5%	9.9%	3.4%	16.0%	7.8%	3.2%	20.6%	12.8%
Average	3.3%	15.5%	12.3%	3.0%	12.6%	12.0%	3.4%	16.2%	12.3%	3.3%	20.5%	12.5%
Highest	4.7%	25.9%	13.9%	3.8%	14.6%	12.8%	4.7%	25.9%	13.8%	3.8%	24.2%	13.9%
Lowest	2.3%	9.78%	9.22%	2.6%	9.8%	10.2%	2.3%	11.66%	9.22%	2.7%	18.0%	10.3%
50 th Percentile	3.3%	15.0%	12.3%	3.0%	12.9%	12.2%	3.4%	15.5%	12.4%	3.4%	19.4%	13.2%
Overall Inflation	0.02%	5.9%	5.5%	0.02%	5.9%	5.5%	0.02%	5.9%	5.5%	0.02%	5.9%	5.5%

OVERALL RETURNS

Large Scheme Overall Average Returns



All Large Schemes quarter, 1-year and 3-year average weighted returns were 3.3% , 15.3% and 8.4% respectively, an increase from 5.2% , 15.6% and 9.0% in Q2 2021.

Conservative Large Schemes recorded returns of 3.0%, 12.5% and 9.9% for the quarter, 1-year and 3-year periods from 4.4%, 13.9% and 10.1% in Q2 2021.

Moderate Large Schemes had a performance of 3.4%, 16.0%, and 7.8% over the quarter, 1-year and 3-year periods from 5.4%, 16.2%, and 8.6% in Q2 2021.

Aggressive Large Schemes had the best performance for the 1-year and 3-year returns. The returns were 3.2%, 20.6% and 12.8% over the quarter, 1-year and 3-year period from 5.9%, 18.3% and 9.5% respectively in Q2 2021.

The overall all Large Schemes performance were above the benchmarks across all the 3 periods.

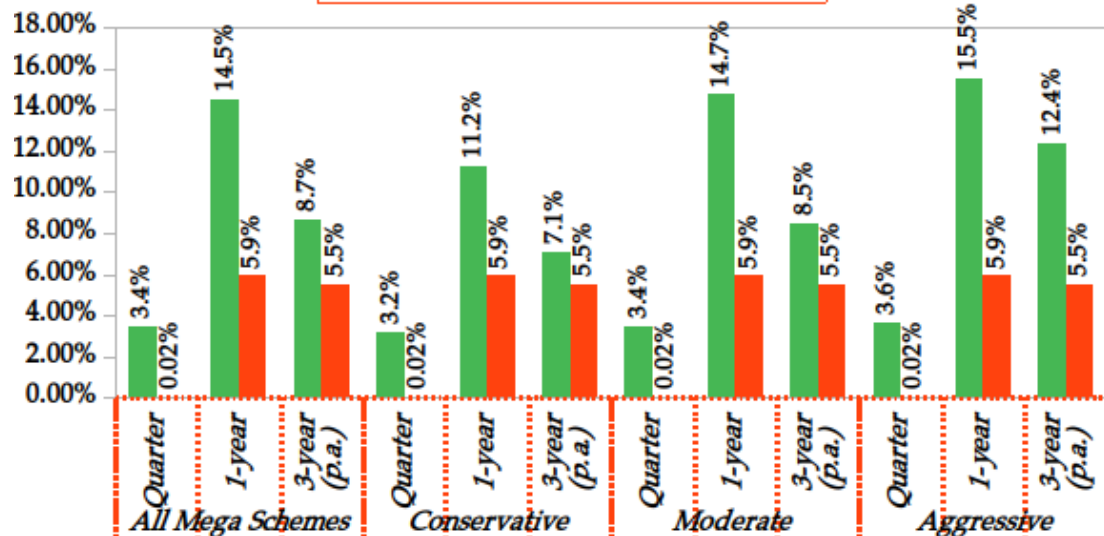
MEGA SCHEMES ANALYSIS

	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	3.4%	14.5%	8.7%	3.2%	11.2%	7.1%	3.4%	14.7%	8.5%	3.6%	15.5%	12.4%
Average	3.4%	15.9%	12.0%	3.0%	13.0%	11.1%	3.4%	16.2%	12.1%	3.4%	15.6%	12.0%
Highest	4.3%	28.9%	13.5%	3.8%	14.4%	12.0%	4.3%	28.9%	13.5%	3.7%	16.8%	12.5%
Lowest	1.5%	11.1%	10.2%	1.5%	11.1%	10.23%	2.7%	12.34%	10.45%	3.0%	16.8%	11.5%
50 th Percentile	3.5%	15.1%	12.1%	3.1%	13.3%	11.1%	3.5%	15.3%	12.1%	3.5%	15.5%	11.9%
Overall Inflation	0.02%	5.9%	5.5%	0.02%	5.9%	5.5%	0.02%	5.9%	5.5%	0.02%	5.9%	5.5%

OVERALL RETURNS

Mega Schemes Overall Average Returns

■ Weighted Average ■ Overall inflation



The returns recorded for Mega Schemes were **3.4%**, **14.5%** and **8.7%** for the quarter, 1-year and 3-year periods from **5.5%**, **15.8%** and **8.9%** in Q2 2021. There is a decrease across all periods.

Conservative Mega Schemes recorded returns of **3.2%**, **11.2%** and **7.1%** for the quarter, 1-year and 3-year periods from **4.6%**, **13.9%** and **8.9%** in Q2 2021.

Moderate Mega Schemes had a performance of **3.4%**, **14.7%**, and **8.5%** over the quarter, 1-year and 3-year periods from **5.6%**, **15.9%**, and **8.8%** in Q2 2021.

Aggressive Mega Schemes had the best performance for the 1-year and 3-year returns. The returns were **3.6%**, **15.5%** and **12.4%** over the quarter, 1-year and 3-year period from **6.3%**, **18.4%** and **10.2%** respectively in Q2 2021.

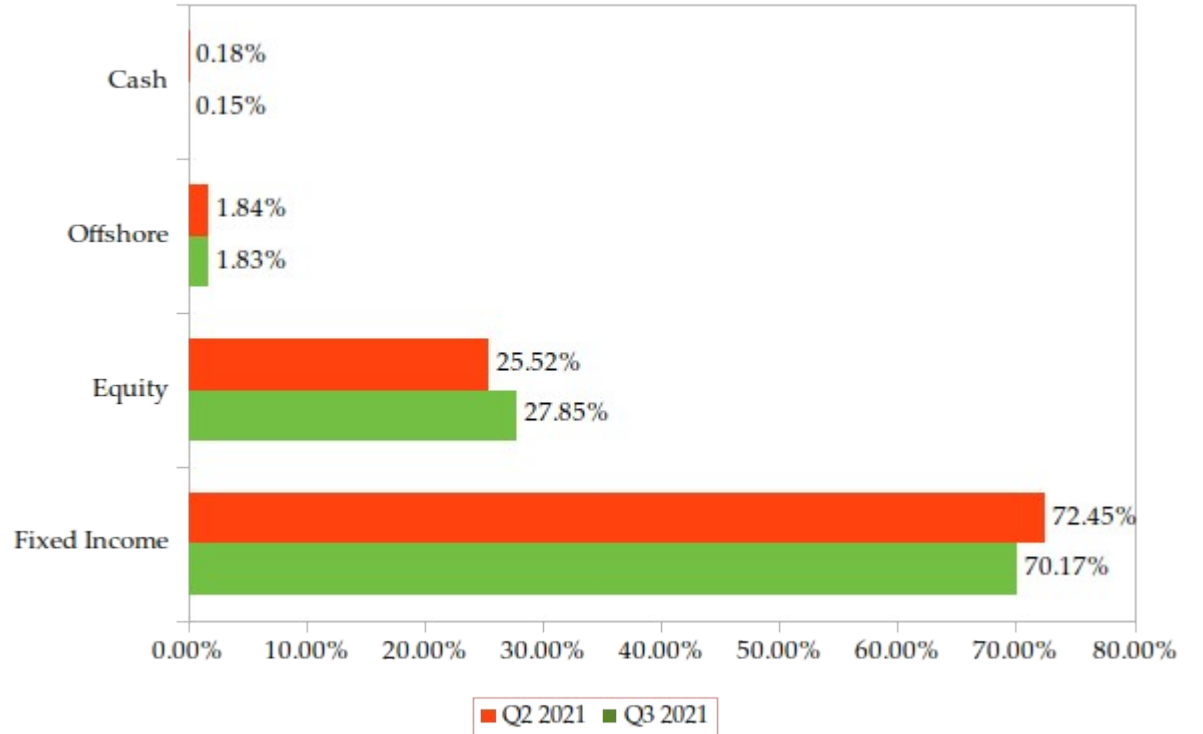
All Mega Schemes weighted return over performed the benchmark across all periods.

ASSETS DISTRIBUTION ANALYSIS

Asset Category Distribution

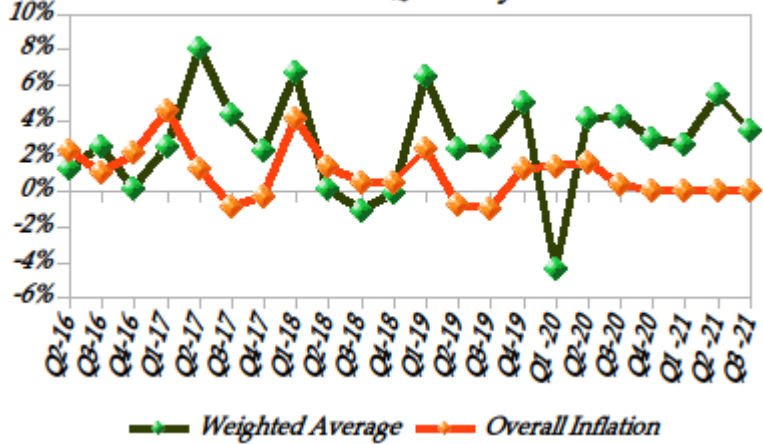
	Fixed Income	Equity	Offshore	Cash
Weighted Average	70.17%	27.85%	1.83%	0.15%
Average	74.48%	24.55%	3.87%	0.35%
Highest	100.00%	70.80%	16.49%	12.22%
Lowest	29.19%	0.06%	0.003%	-1.92%
Median	74.28%	24.73%	3.73%	0.08%

Asset Category Distribution

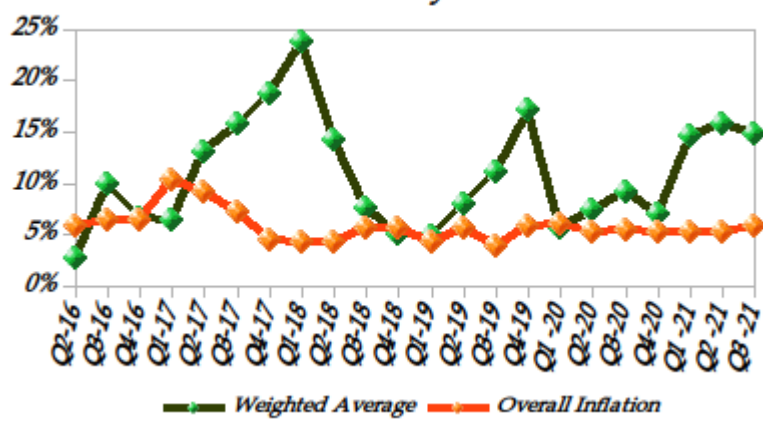


RETURN TRENDS

Overall Trend of Quarterly Returns



Overall Trend 1-year Returns



Overall Return Trends

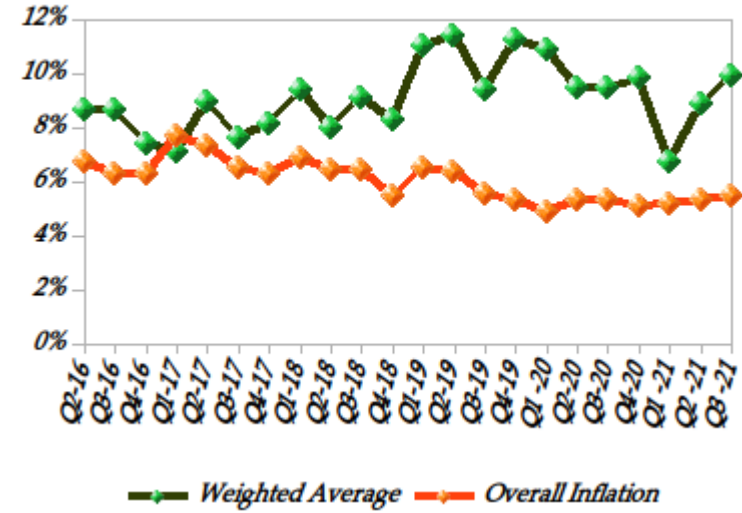
Since Q2-16 overall quarter returns have been above inflation except in Q4-16, Q1-17, Q2-18, Q3-18, Q4-18 and Q1-20 where inflation was marginally higher.

Q3-21 overall quarter return outperformed inflation. This is attributable to a positive investor sentiment due to the vaccine rollout and the reopening of the economy.

The variance between the quarterly returns and inflation rates has been marginal.

Since Q2 2016 the overall trend of 1-year return has generally outperformed the inflation benchmark except in Q2-2016, Q1-2017, Q4-2018 and Q1-2020.

Overall Trend 3-year Returns

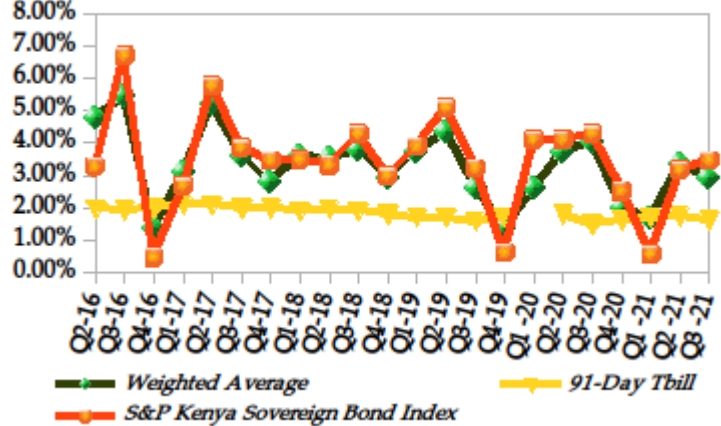


From Q4-16, the overall 3-year annualized return has remained above inflation benchmark except in Q1-17. The return increased over the quarter to 9.9% from 8.9% in Q2-21 and 9.8% in Q4-20.

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.

Fixed Income Return Trends

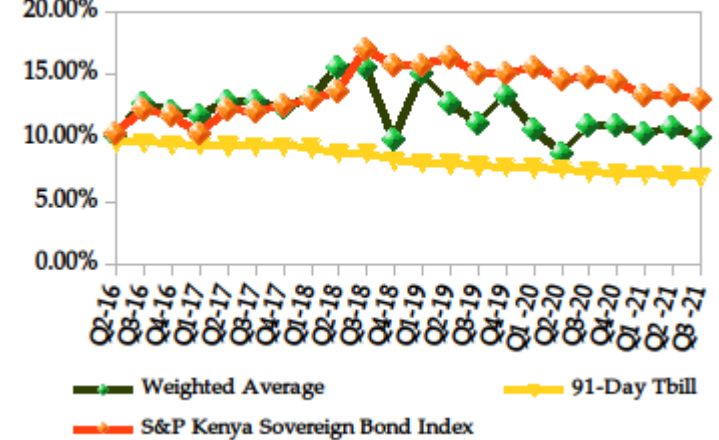
Fixed Income Trend of Quarterly Returns



The quarterly fixed income returns have been volatile and generally mirrored the benchmark.

Since Q2-16 the lowest realized quarterly fixed income return was in 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.

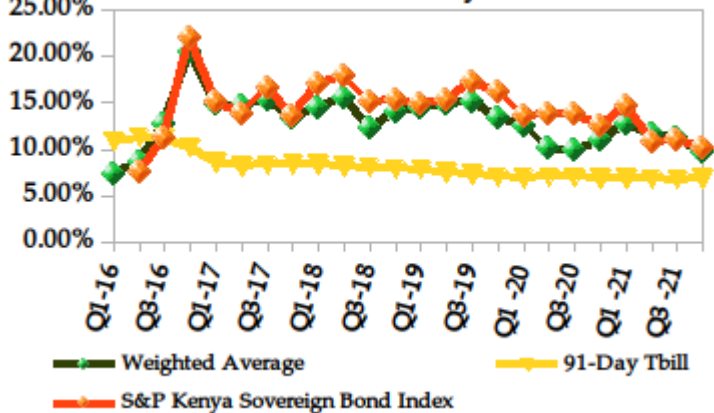
Fixed Income Trend of 3-year Returns



Similar to quarterly returns, the 3-year annualized returns have been volatile over consecutive quarters. Since Q2-16 the highest 3 year fixed income return was recorded in Q2-18 at 15.51%. Q3-21 return of 10.0% was a decrease from 10.8% in Q2 2021.

Single digit returns were recorded in Q4-18 at 9.90% and Q3-21 at 10.0%. Since Q3-18 the returns have under performed the S&P Kenya Sovereign Bond Index.

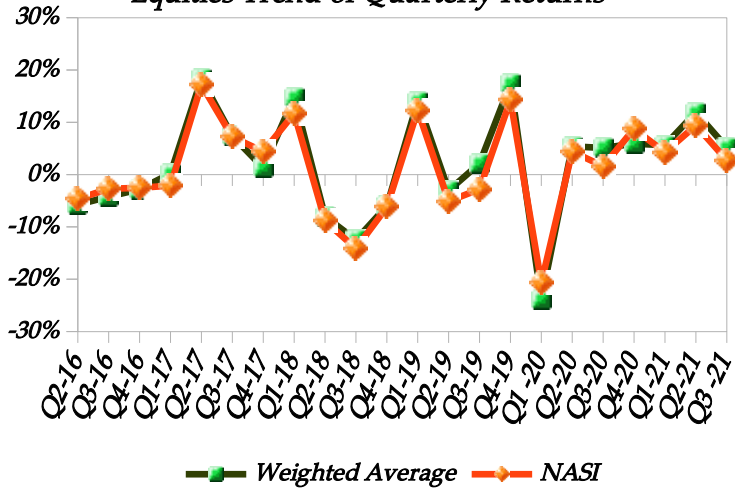
Fixed Income Trend of 1-year Returns



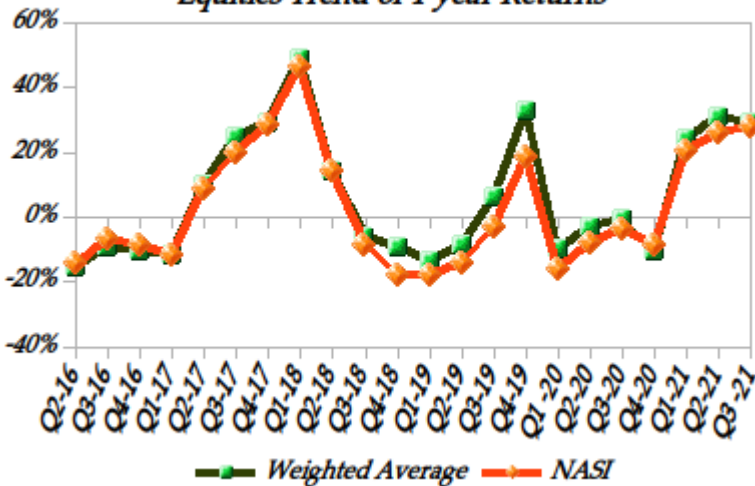
The 1-year fixed income returns have been more stable than the quarterly returns and have remained consistent with the benchmark.

The highest realized 1 year fixed income return was 20.54% in Q3-16. Q3-21 return of 9.6% was a decline from 11.2% in Q2 2021.

Equities Trend of Quarterly Returns



Equities Trend of 1 year Returns



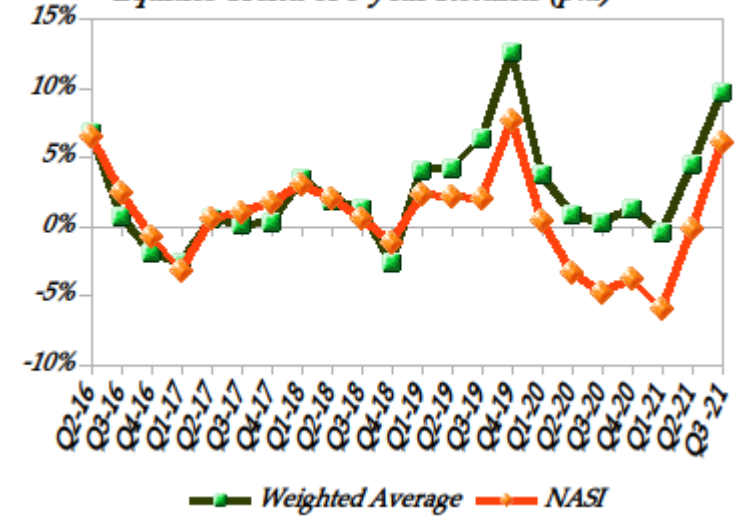
Equities Trend

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 remained stable at around 11.9% from -5.7% in Q2-16. The lowest quarterly equity return was in Q1-20 at -23.9% followed by Q3-18, -12.5% while the highest was in Q2-17 at 18.32%.

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 Q1-19 at -13.80%.

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 Q1-17 at -2.60%. From Q1-19 the 3-year equity trend has remained stable above the NASI benchmark index. The recovery from the COVID-19 pandemic in Q2-20 has resulted in equities performance increasing from 4.5% in Q2-21 and 9.6% in Q3-21.

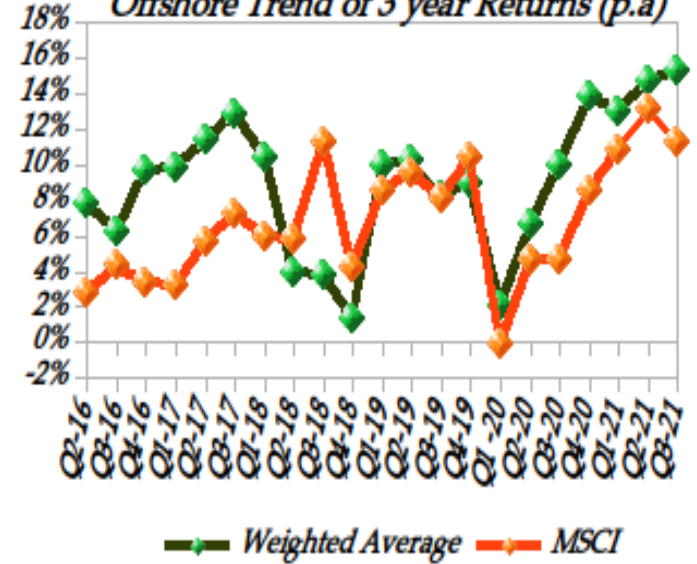
Offshore Trend

The quarterly offshore returns have been volatile. They however have closely matched the benchmark performance outperforming it in certain quarters. In Q2 2021 the returns have been above the benchmark.

The persistence of the COVID-19 variants have slowed the recovery resulting in weighted average quarter offshore returns declining quarter to quarter from 11.30% in Q3-20 to 10.2% in Q2-21 down to 1.9% in Q3-21. Since Q1-17 the highest return was 25.30% in Q2-20.

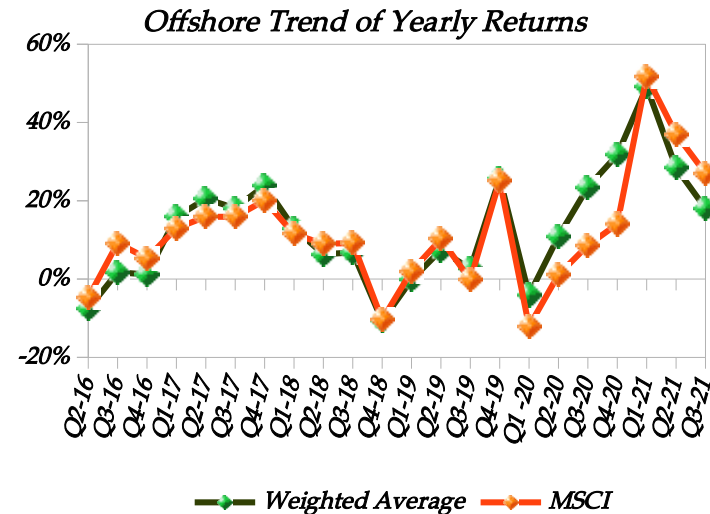
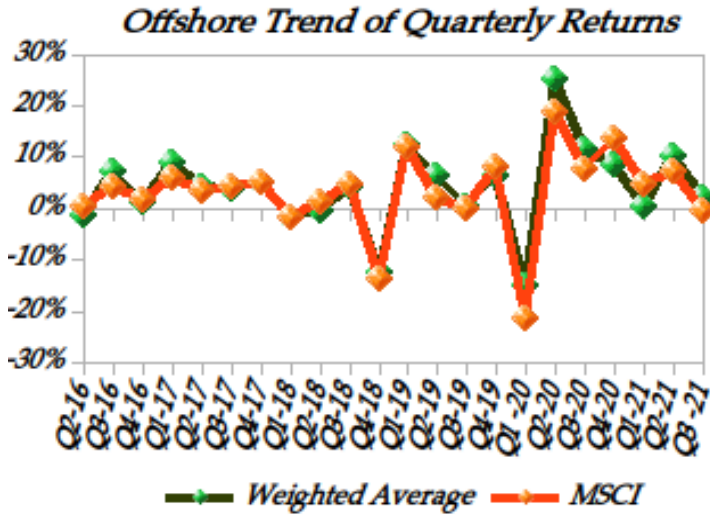
The highest offshore 1-year return on average for all schemes since Q2 2016 was in Q1-21 at 49.1% while the lowest was in Q4-18 at -10.70%. The returns in Q3-21 decreased to 18.0% from 28.5% in Q2-21.

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.

From the onset of COVID-19 pandemic weighted average 3-year offshore returns have continued to increase quarter on quarter from 2.10% in Q1-20 to 13.9% in Q4-20 and a slight decline to 12.9% in Q1-21. The highest weighted average return since Q1-17 was at 15.3% in Q3-21.





- 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.

	Quarter	1-Year	3-Years
Standard Deviation	0.43%	5.00%	4.52%
Tracking Error	0.03%	1.05%	0.11%
Information Ratio	118.23	9.54	58.50
Sharpe Ratio	60.21	8.66	45.60

- 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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