



UNIVERSITY OF WITWATERSRAND RETIREMENT FUND

GLOBAL EQUITY PORTFOLIO AND MANAGER CHARTPACK

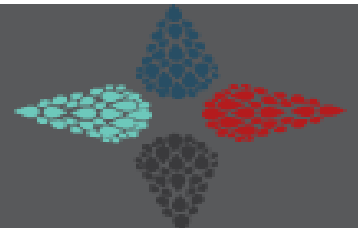
April 2022

(all figures in USD, net of fees, unless specified)

mosaic investment consulting

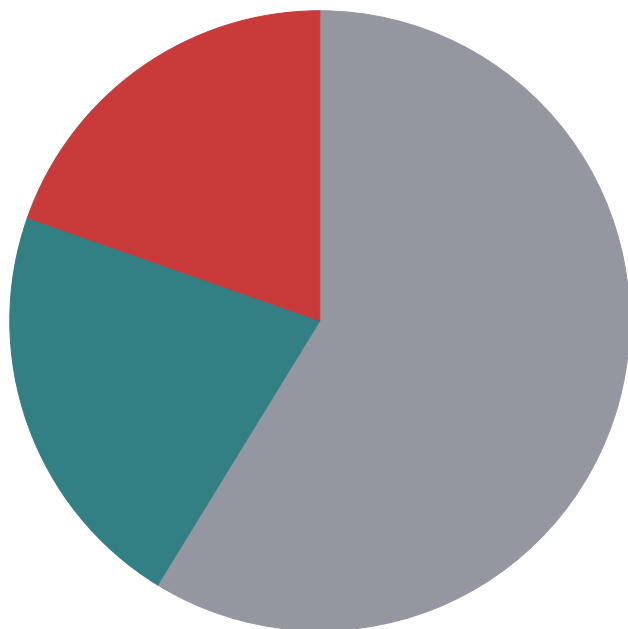
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Portfolio Holdings - UWRF Global Portfolio

Portfolio Date: 30-04-2022



	%
● Baillie Gifford WW Glb Alp B USD Acc	58.8
● Ninety One GSF Glb Frchs I Acc USD	21.6
● Vulcan Value Equity USD II Acc	19.6
Total	100.0

UWRF Global Portfolio - Top Stock Holdings

Portfolio Date: 30-04-2022

	Sector	Portfolio Weighting %
Microsoft Corp	Technology	3.87
Moody's Corporation	Financial Services	2.89
Amazon.com Inc	Consumer Cyclical	2.60
Visa Inc Class A	Financial Services	2.60
Alphabet Inc Class C	Communication Services	2.51
Mastercard Inc Class A	Financial Services	2.31
Anthem Inc	Healthcare	1.86
Booking Holdings Inc	Consumer Cyclical	1.74
Martin Marietta Materials Inc	Basic Materials	1.58
Prosus NV Ordinary Shares - Class N	Communication Services	1.53

Contributors - 1 month

Time Period: 01-04-2022 to 30-04-2022

	Rescaled Weight	Return	Contribution
Ninety One GSF Glb Frchs I Acc USD	20.80	-6.69	-1.39
Vulcan Value Equity USD II Acc	20.92	-15.94	-3.33
Baillie Gifford WW Glb Alp B USD Acc	58.28	-9.55	-5.57

Contributors - 1 year

Time Period: 01-05-2021 to 30-04-2022

	Rescaled Weight	Return	Contribution
Ninety One GSF Glb Frchs I Acc USD	19.32	-6.44	-1.19
Vulcan Value Equity USD II Acc	21.04	-23.69	-4.86
Baillie Gifford WW Glb Alp B USD Acc	59.63	-23.16	-14.13

Trailing Returns - USD

As of Date: 30-04-2022

	1m	3m	6m	1 Year	3 Years	5 Years	7 Years
UWRF Global Portfolio	-10.29	-12.33	-25.11	-20.18	6.82	8.09	7.69
MSCI ACWI NR USD	-8.00	-8.44	-11.63	-5.44	9.41	9.46	7.93
MSCI World NR USD	-8.31	-8.17	-11.30	-3.52	10.41	10.17	8.61

Risk - USD

Time Period: Since Common Inception (01-09-2014) to 30-04-2022 Calculation Benchmark: MSCI ACWI NR USD

	Return	Std Dev	Max Drawdown	Tracking Error	Information Ratio (arith)
UWRF Global Portfolio	7.65	16.68	-25.11	4.92	0.02
MSCI ACWI NR USD	7.53	14.26	-21.37	0.00	—

Trailing Returns - ZAR

As of Date: 30-04-2022

	1m	3m	6m	1 Year	3 Years	5 Years	7 Years
UWRF Global Portfolio	-2.90	-10.37	-22.07	-12.98	10.37	11.76	12.08
MSCI ACWI NR USD	-0.43	-6.39	-8.05	3.09	13.06	13.17	12.33
MSCI World NR USD	-0.75	-6.12	-7.71	5.19	14.09	13.91	13.04

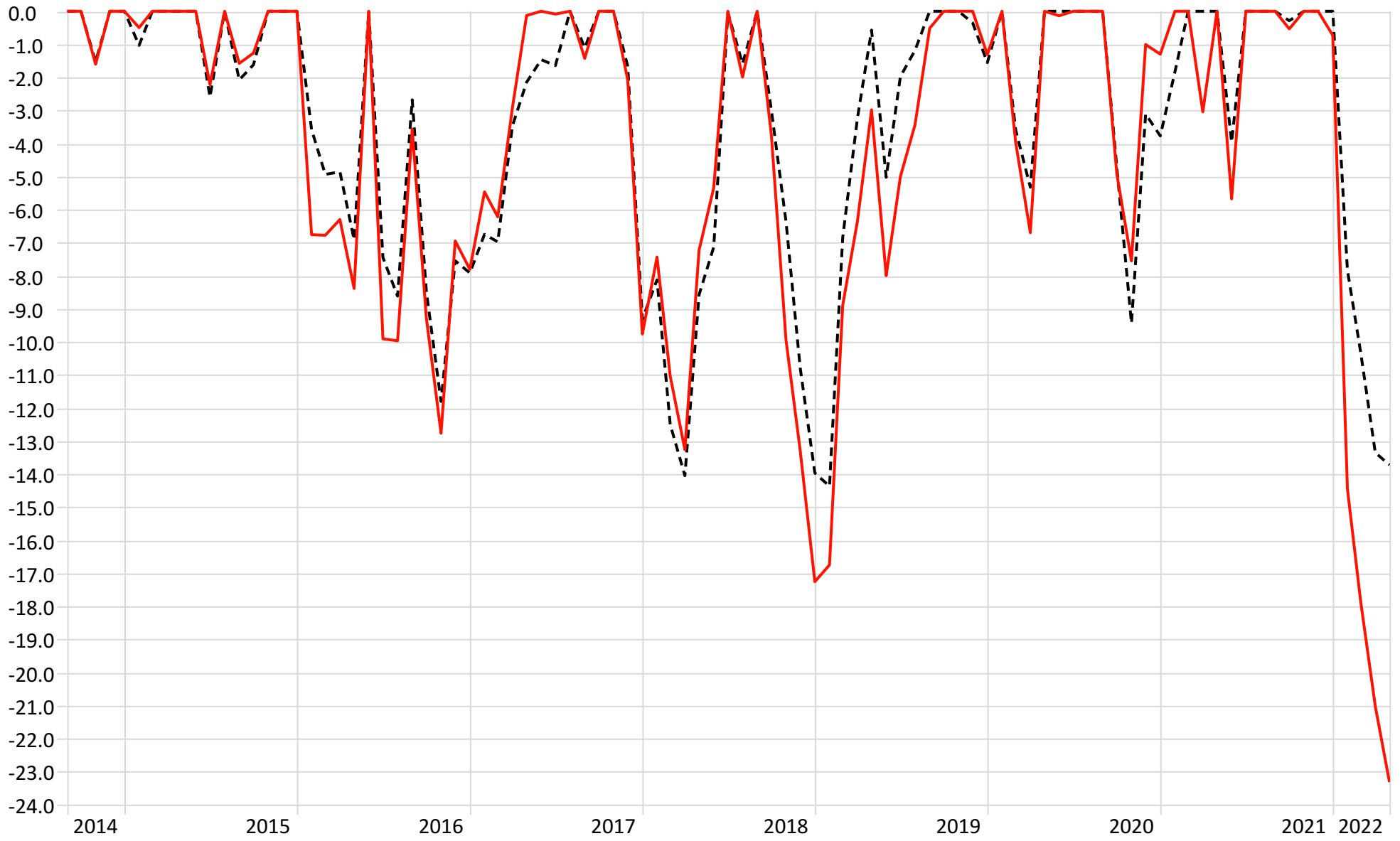
Risk - ZAR

Time Period: Since Common Inception (01-09-2014) to 30-04-2022 Calculation Benchmark: MSCI ACWI NR USD

	Return	Std Dev	Max Drawdown	Tracking Error	Information Ratio (arith)
UWRF Global Portfolio	13.37	17.26	-23.32	4.90	0.03
MSCI ACWI NR USD	13.25	14.92	-14.37	0.00	—

Monthly Drawdown - ZAR

Time Period: Since Common Inception (01-09-2014) to 30-04-2022

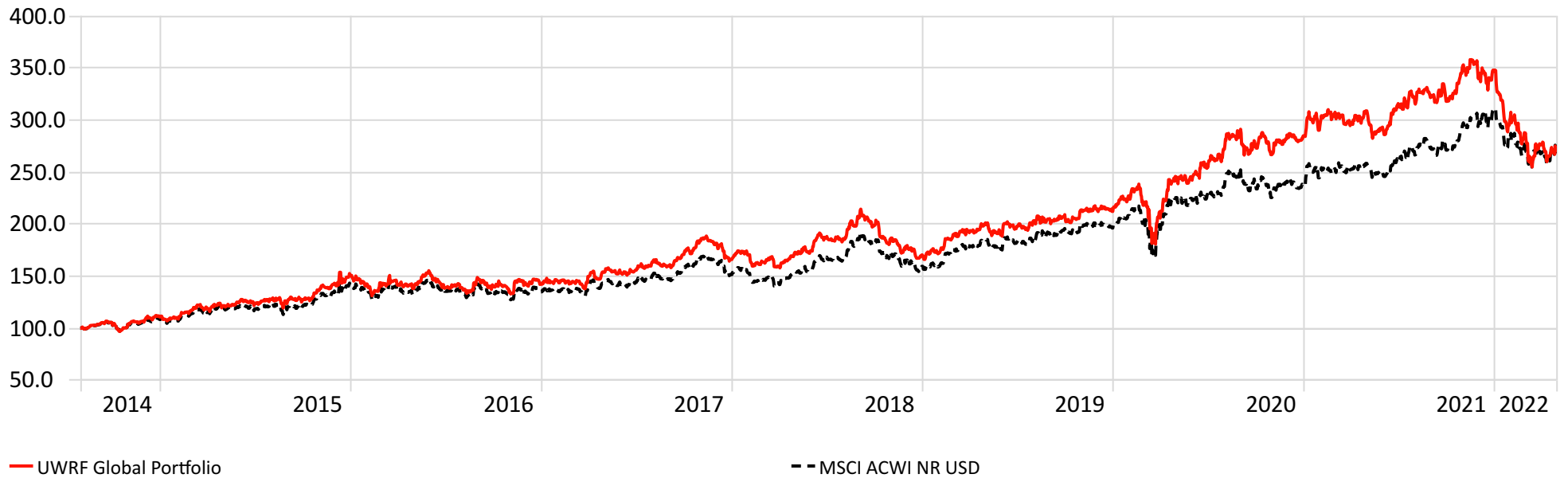


— UWRF Global Portfolio

-- MSCI ACWI NR USD

Investment Growth in ZAR - Since UWRF Global Portfolio inception

Time Period: 02-08-2014 to 30-04-2022



Since Inception Excess Returns - UWRF Global Portfolio

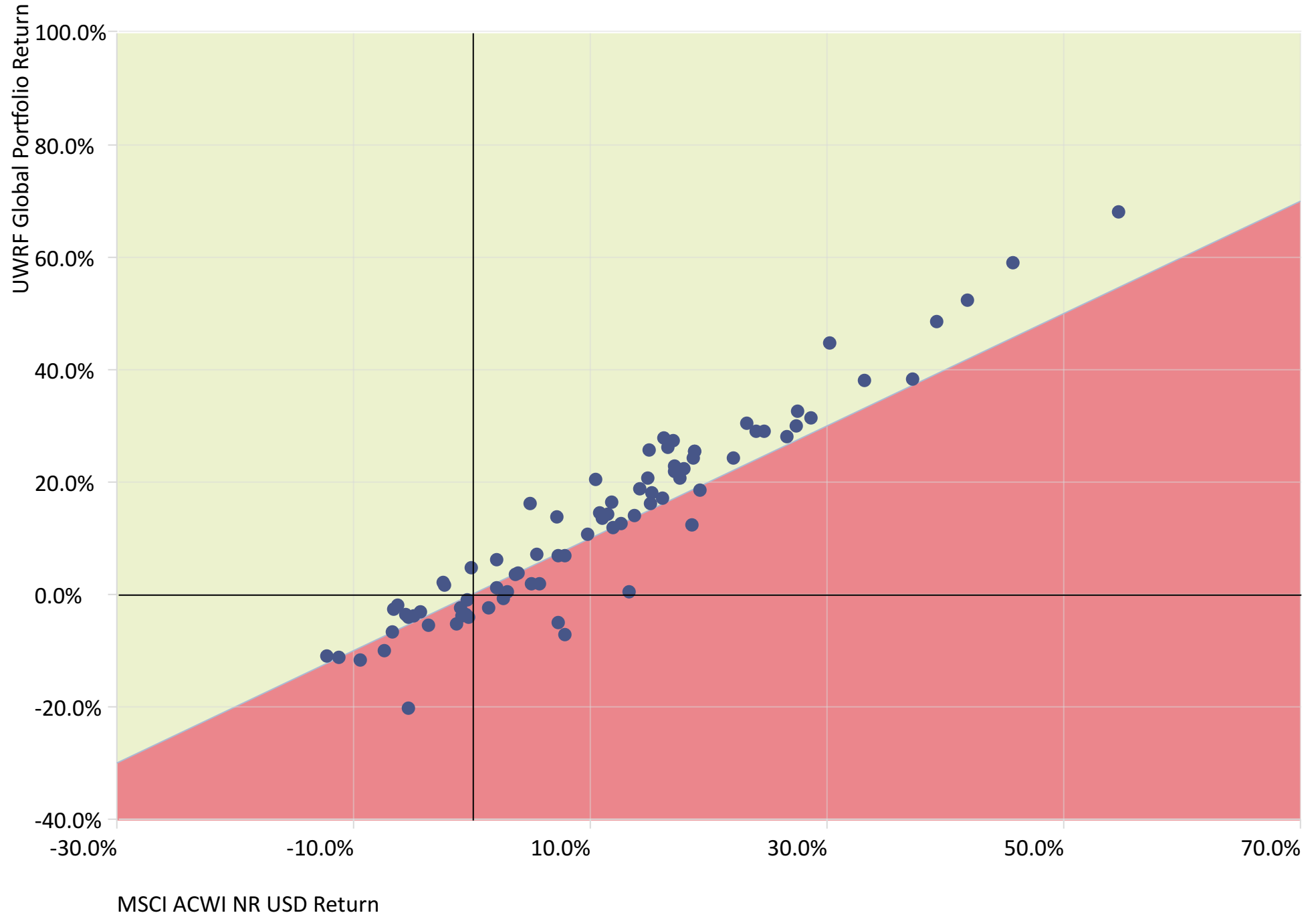
Time Period: 02-08-2014 to 30-04-2022

Calculation Benchmark: MSCI ACWI NR USD



UWRF Global Portfolio Over/Under Benchmark Performance

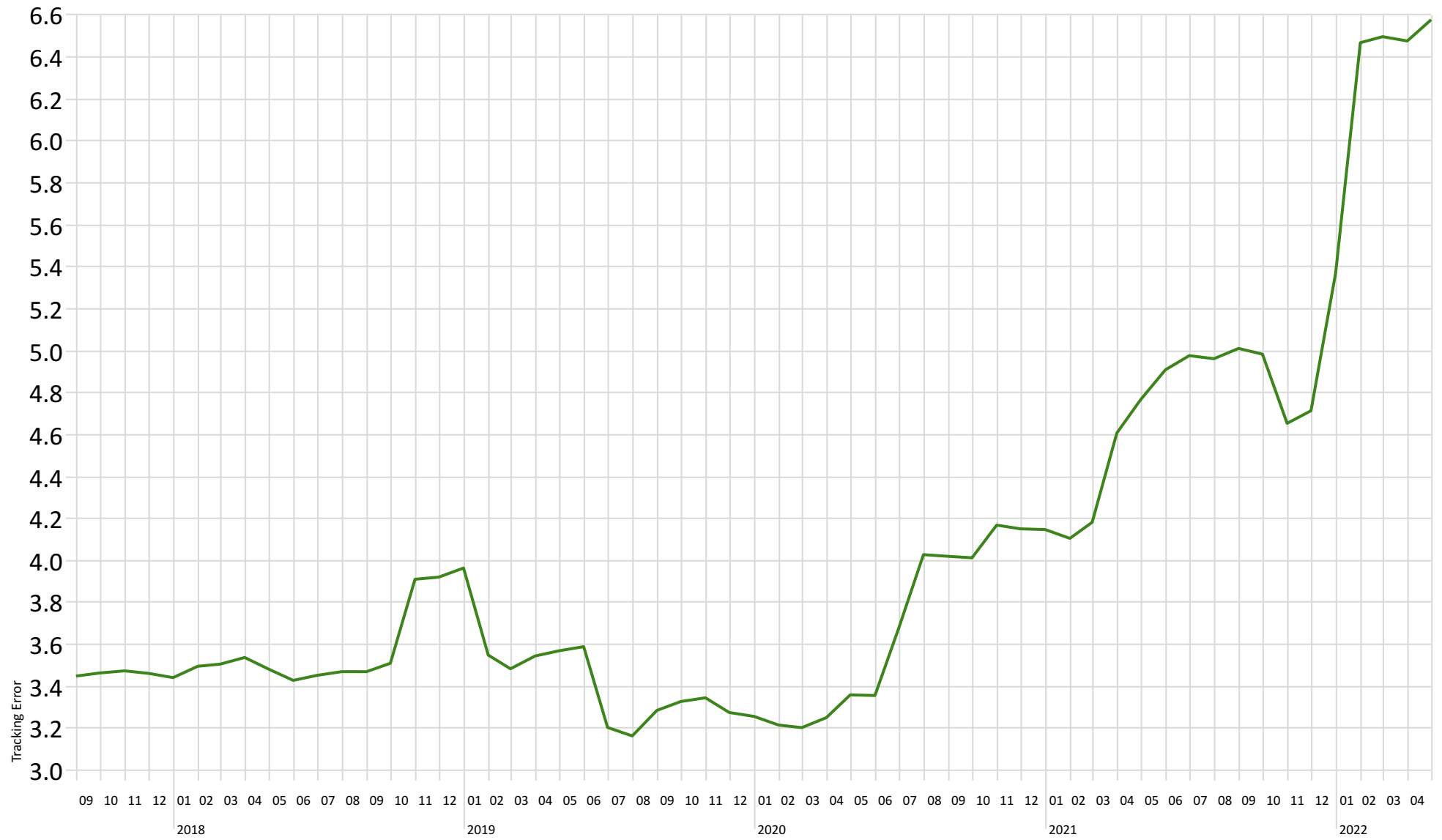
Time Period: Since Inception to 30-04-2022 Rolling Window: 1 Year 1 Month shift Calculation Benchmark: MSCI ACWI NR USD



Rolling Tracking Error

Time Period: Since Common Inception (01-09-2014) to 30-04-2022

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI ACWI NR USD

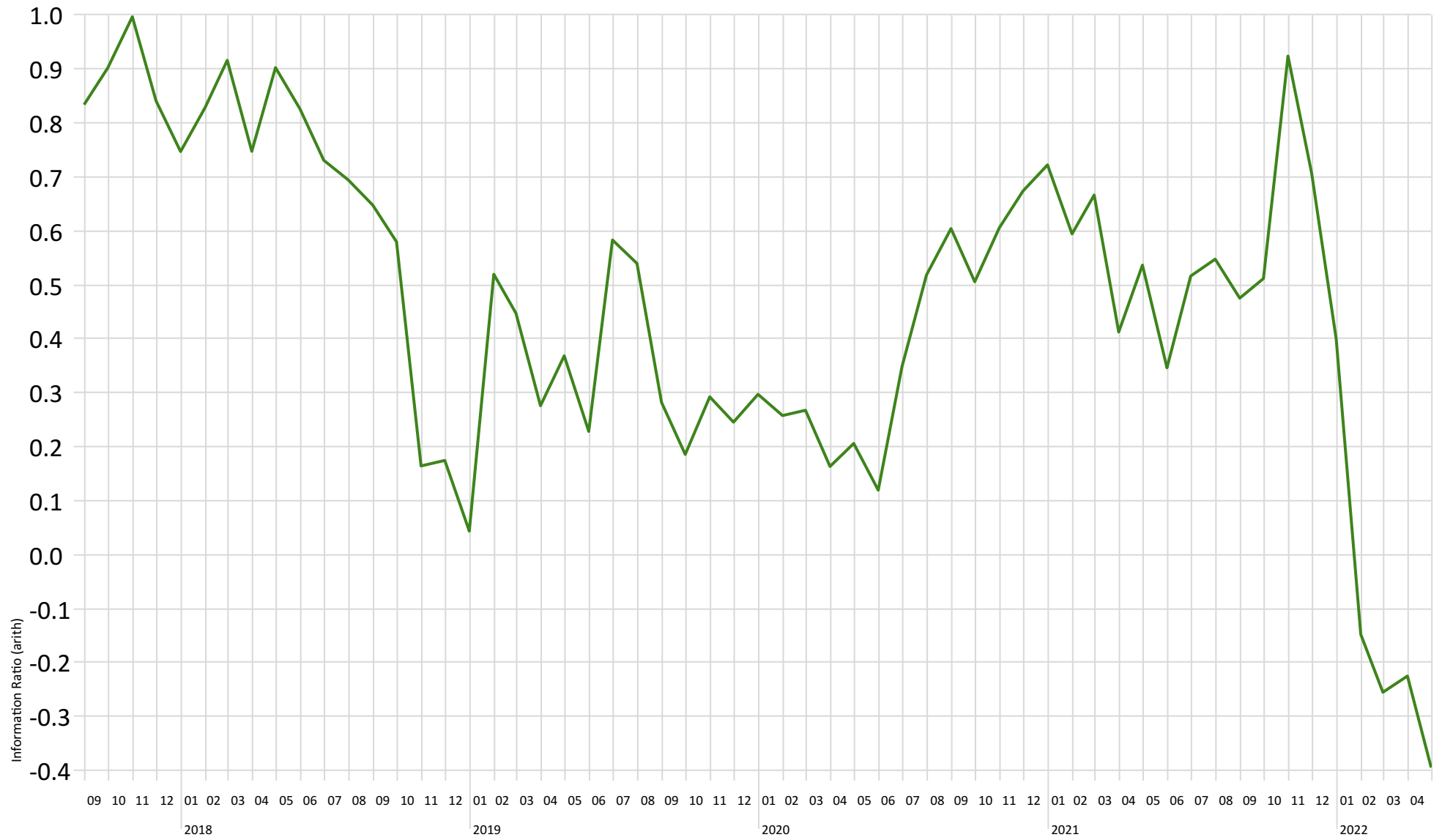


— UWRG Global Portfolio

Rolling Information Ratio

Time Period: Since Common Inception (01-09-2014) to 30-04-2022

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI ACWI NR USD

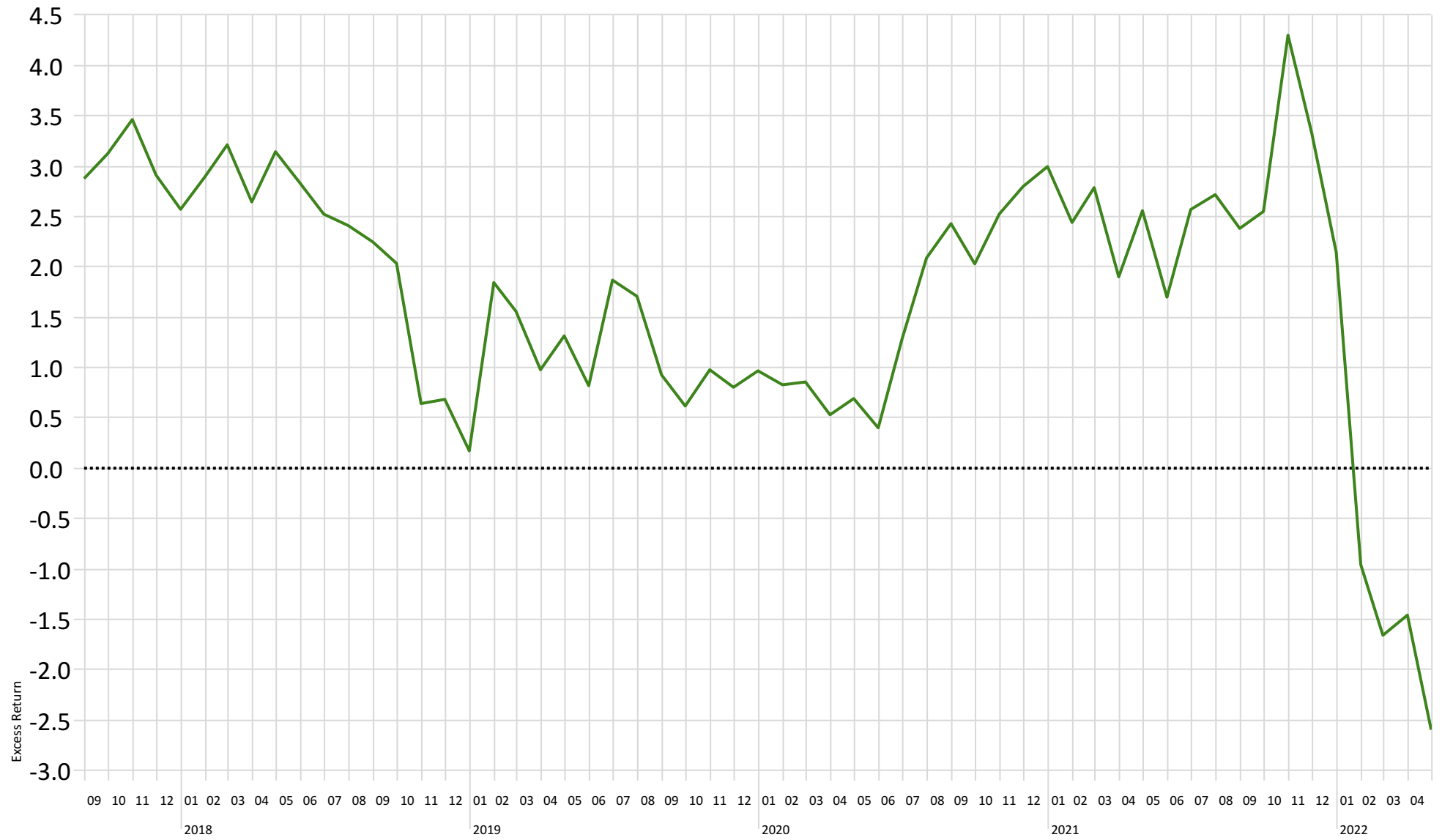


— UWRG Global Portfolio

Rolling 3yr Excess Returns (Alpha)

Time Period: Since Common Inception (01-09-2014) to 30-04-2022

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI ACWI NR USD



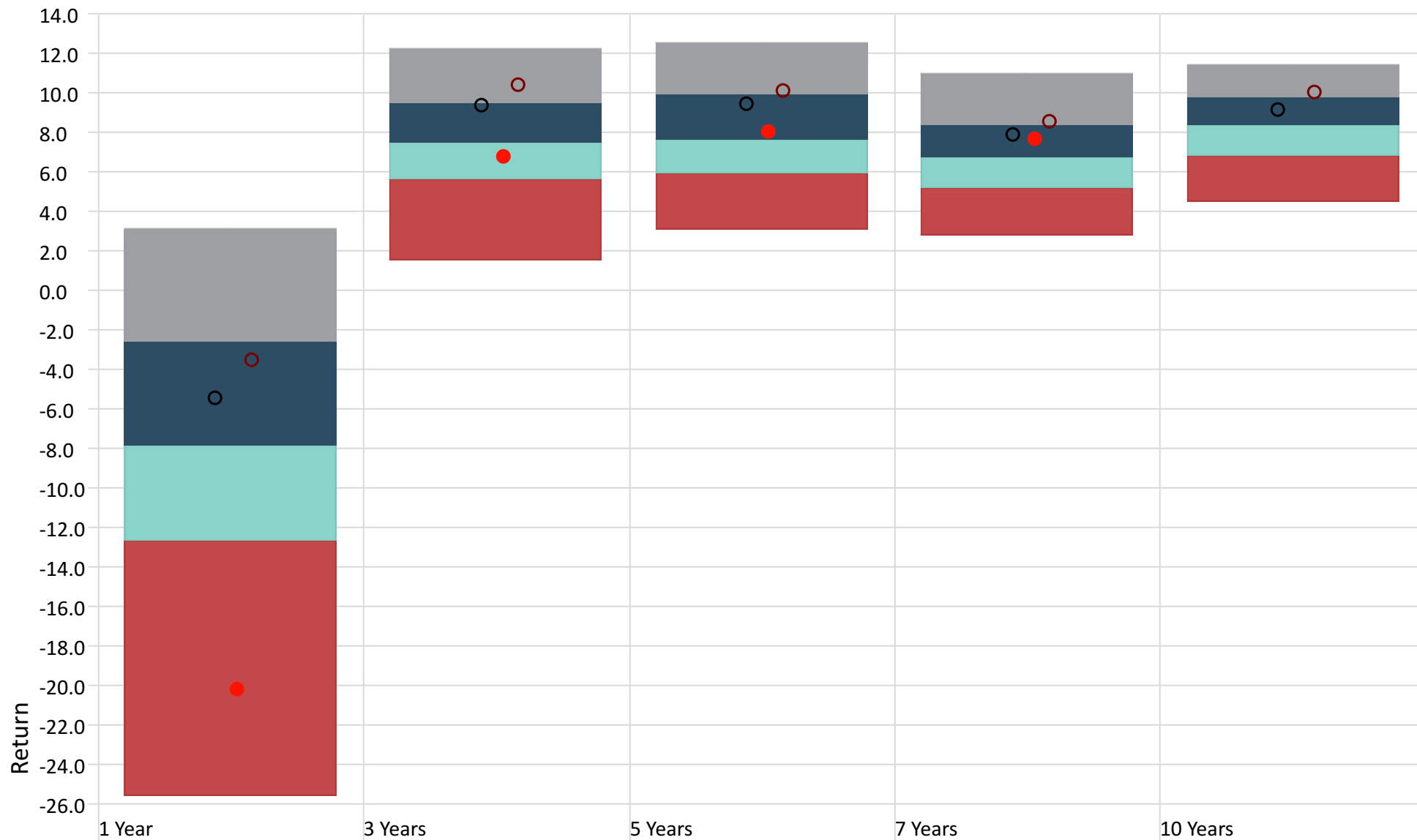
— UWRG Global Portfolio

.... MSCI ACWI NR USD

Performance Relative to Peer Group

Peer Group (5-95%): Global Equity USD Currency: US Dollar

■ Top Quartile ■ 2nd Quartile ■ 3rd Quartile ■ Bottom Quartile

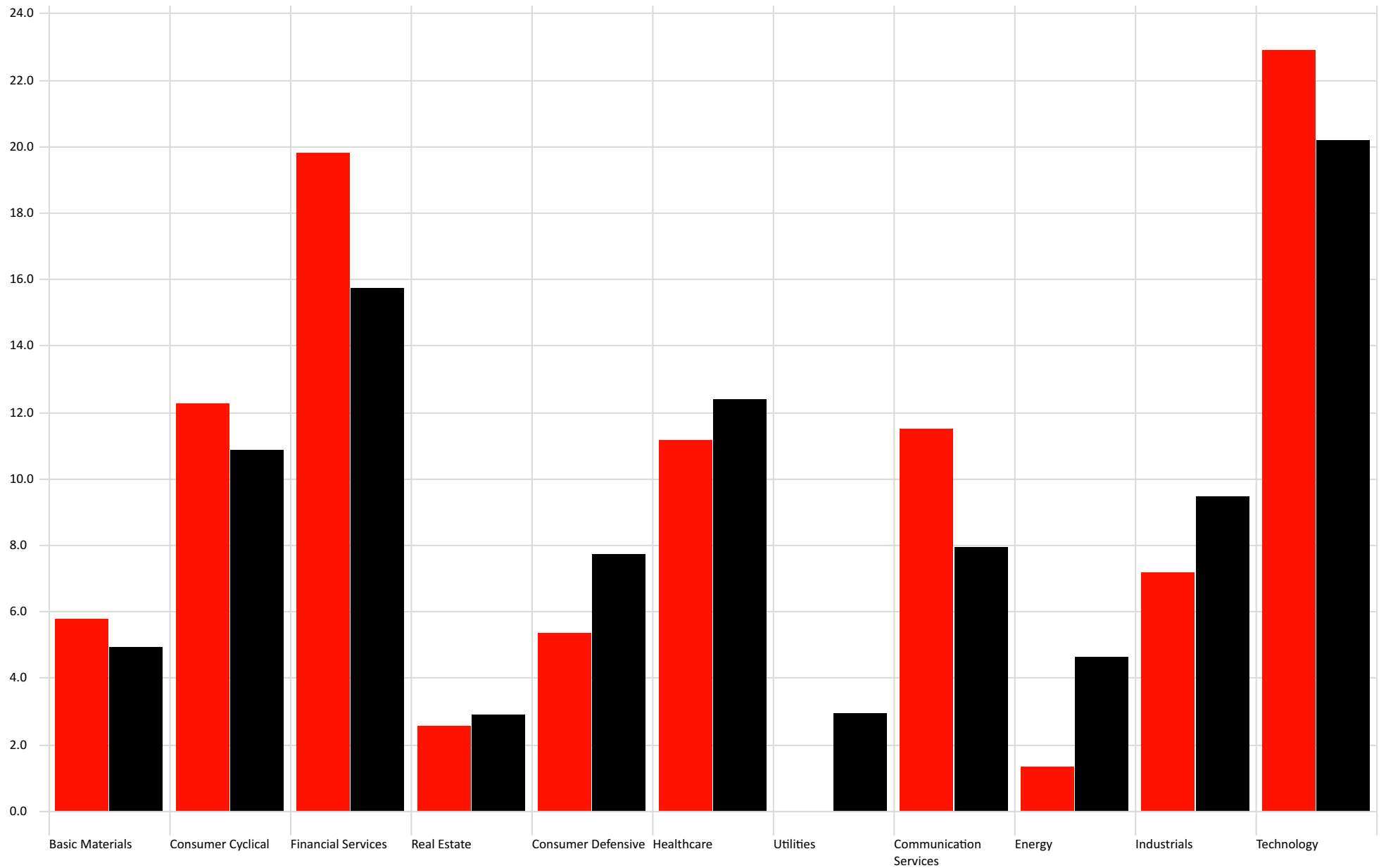


● UWRF Global Portfolio

○ MSCI ACWI NR USD

○ MSCI World NR USD

Sector Exposure

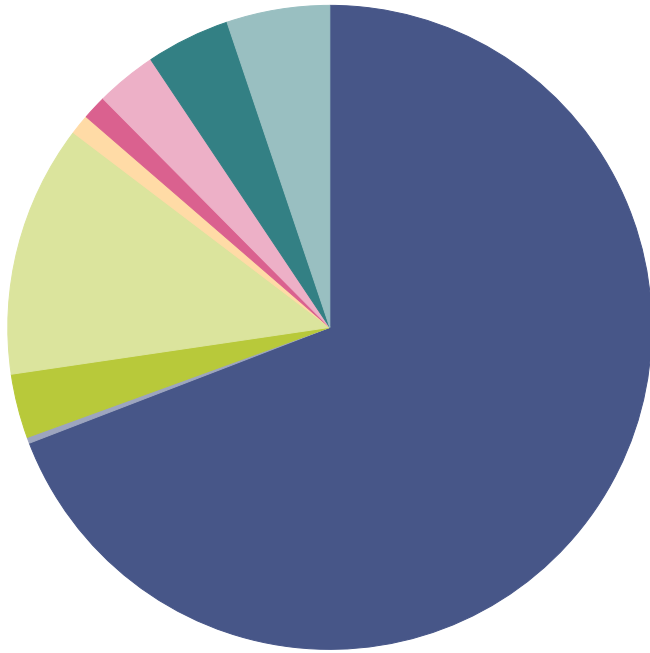


■ UWRF Global Portfolio

■ MSCI ACWI NR USD

Equity Regional Exposure - UWRF Global Portfolio

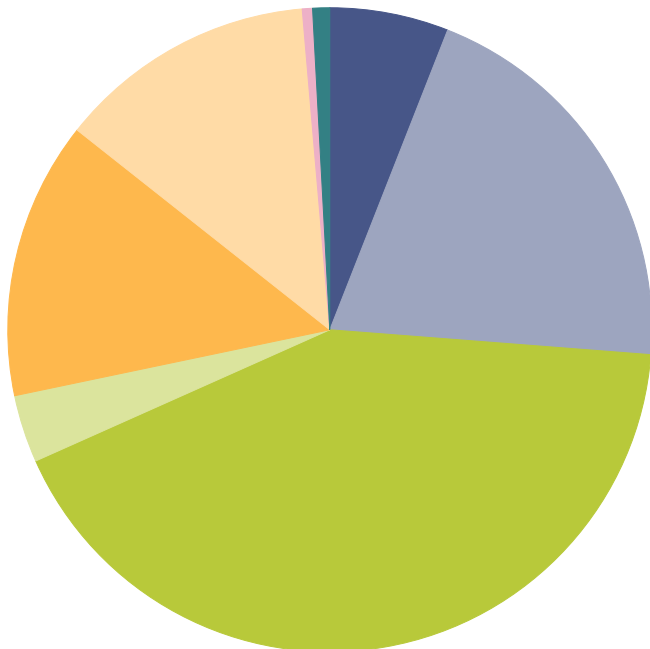
Portfolio Date: 30-04-2022



	%
North America	69.1
Latin America	0.3
United Kingdom	3.2
Europe dev	12.6
Europe emrg	0.0
Africa/Middle East	1.0
Australasia	1.2
Japan	3.1
Asia dev	4.2
Asia emrg	5.2
Total	100.0

Equity Style - UWRF Global Portfolio

Portfolio Date: 30-04-2022



	%
Large Value	6.0
Large Core	20.3
Large Growth	42.1
Mid Value	3.4
Mid Core	13.9
Mid Growth	13.0
Small Value	0.0
Small Core	0.5
Small Growth	0.9
Total	100.0

MANAGER RETURNS AND STATISTICS

Trailing Returns

As of Date: 30-04-2022

	1m	3m	YTD	1 Year	3 Years	5 Years	7 Years
Baillie Gifford WW Glb Alp B USD Acc	-9.55	-10.65	-22.53	-23.16	7.96	9.99	9.13
Vulcan Value Equity USD II Acc	-15.94	-19.76	-27.56	-23.69	5.36	6.98	5.82
Ninety One GSF Glb Frchs I Acc USD	-6.69	-9.36	-14.74	-6.44	8.77	10.06	9.48
MSCI ACWI NR USD	-8.00	-8.44	-12.94	-5.44	9.41	9.46	7.93
MSCI World NR USD	-8.31	-8.17	-13.03	-3.52	10.41	10.17	8.61

Risk

Time Period: Since Common Inception (01-10-2013) to 30-04-2022 Calculation Benchmark: MSCI ACWI NR USD

	Return	Std Dev	Max Drawdown	Tracking Error	Information Ratio (arith)
Baillie Gifford WW Glb Alp B USD Acc	9.52	16.91	-26.71	6.93	0.15
Vulcan Value Equity USD II Acc	7.90	18.12	-30.88	7.48	-0.07
Ninety One GSF Glb Frchs I Acc USD	9.61	12.78	-14.74	5.84	0.20
MSCI ACWI NR USD	8.46	13.73	-21.37	0.00	—

Trailing Returns - ZAR

As of Date: 30-04-2022

	1m	3m	YTD	1 Year	3 Years	5 Years	10 Years
Baillie Gifford WW Glb Alp B USD Acc	-2.10	-8.65	-23.23	-16.22	11.55	13.72	—
Vulcan Value Equity USD II Acc	-9.01	-17.96	-28.21	-16.81	8.87	10.61	—
Ninety One GSF Glb Frchs I Acc USD	1.00	-7.34	-15.51	2.00	12.39	13.80	18.02
MSCI ACWI NR USD	-0.43	-6.39	-13.72	3.09	13.06	13.17	17.28
MSCI World NR USD	-0.75	-6.12	-13.82	5.19	14.09	13.91	18.19

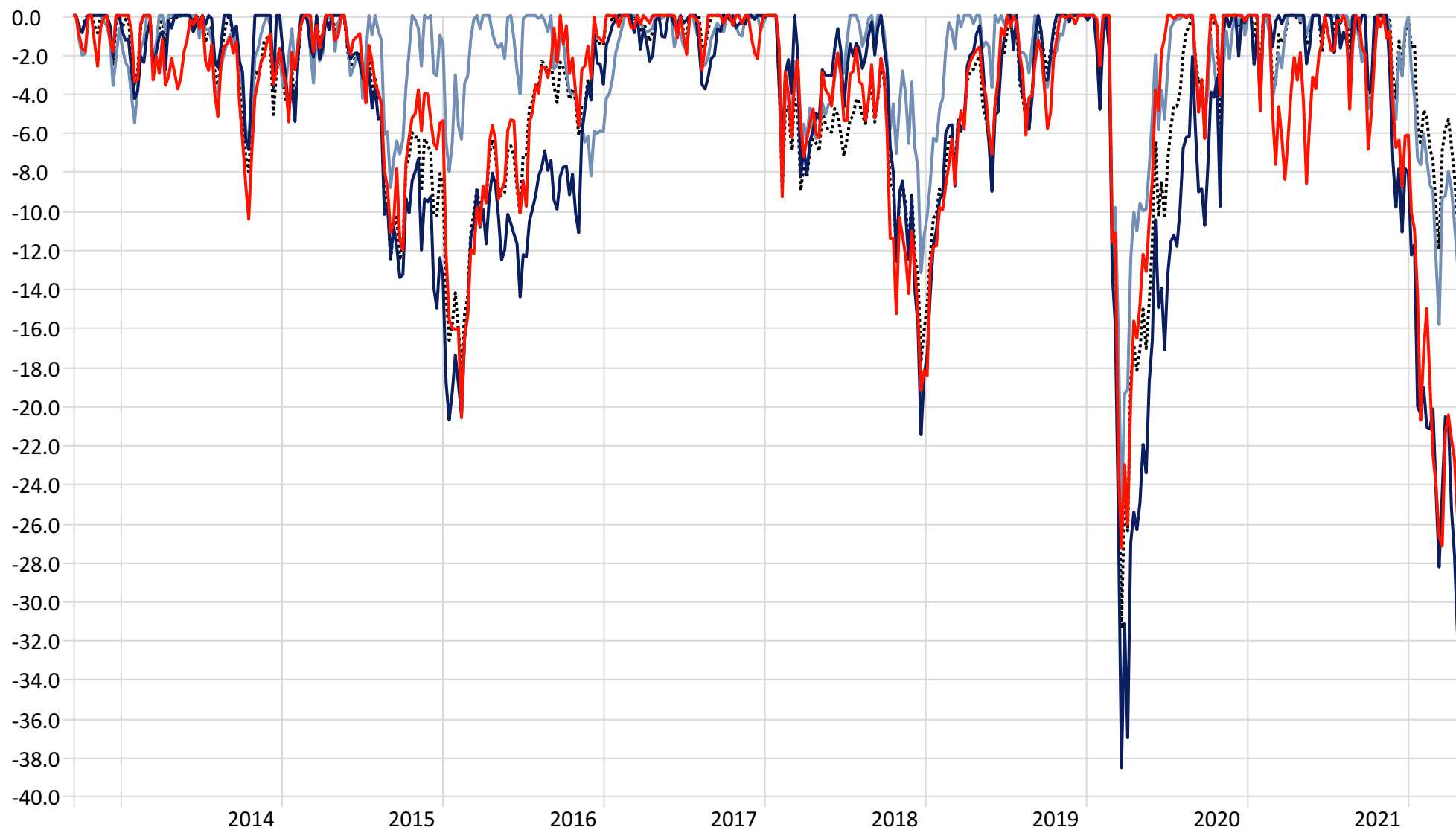
Risk - ZAR

Time Period: Since Common Inception (01-10-2013) to 30-04-2022 Calculation Benchmark: MSCI ACWI NR USD

	Return	Std Dev	Max Drawdown	Tracking Error	Information Ratio (arith)
Baillie Gifford WW Glb Alp B USD Acc	15.44	17.66	-25.16	6.88	0.16
Vulcan Value Equity USD II Acc	13.74	17.81	-28.68	7.69	-0.08
Ninety One GSF Glb Frchs I Acc USD	15.54	15.41	-16.34	6.01	0.20
MSCI ACWI NR USD	14.33	14.25	-14.37	0.00	—

Drawdown

Time Period: Since Common Inception (15-09-2013) to 23-04-2022



— Baillie Gifford WW Glb Alp B USD Acc

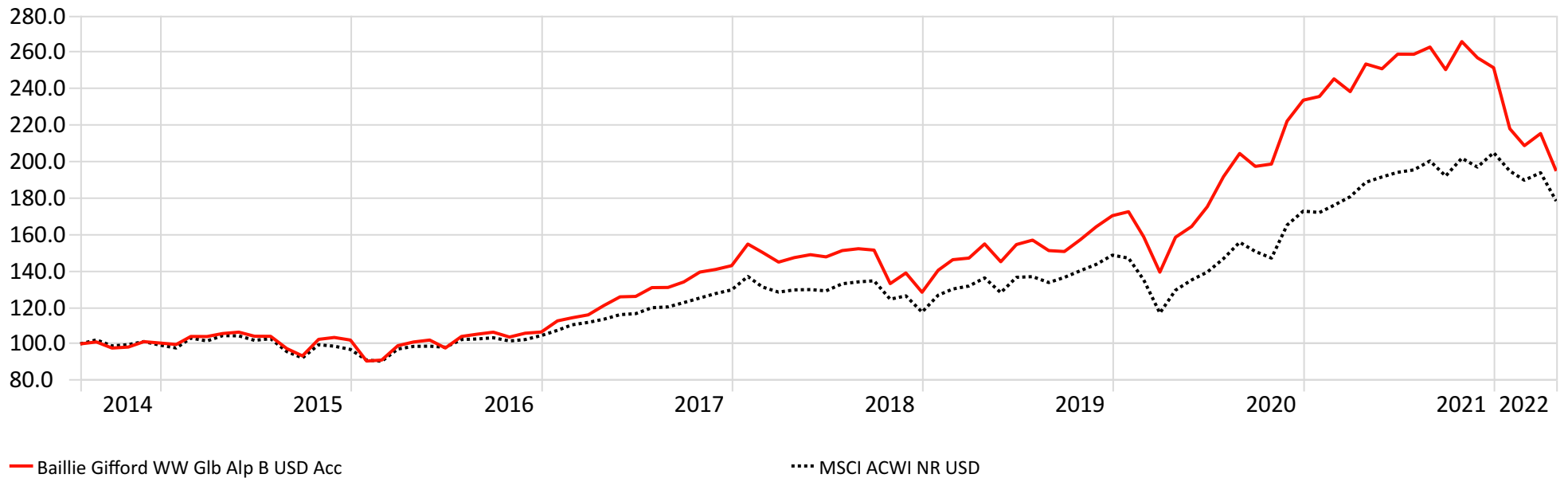
— Vulcan Value Equity USD II Acc

— Ninety One GSF Glb Frchs I Acc USD

.... MSCI ACWI NR USD

Investment Growth in USD - Since UWRF Baillie Gifford inception

Time Period: 01-08-2014 to 30-04-2022



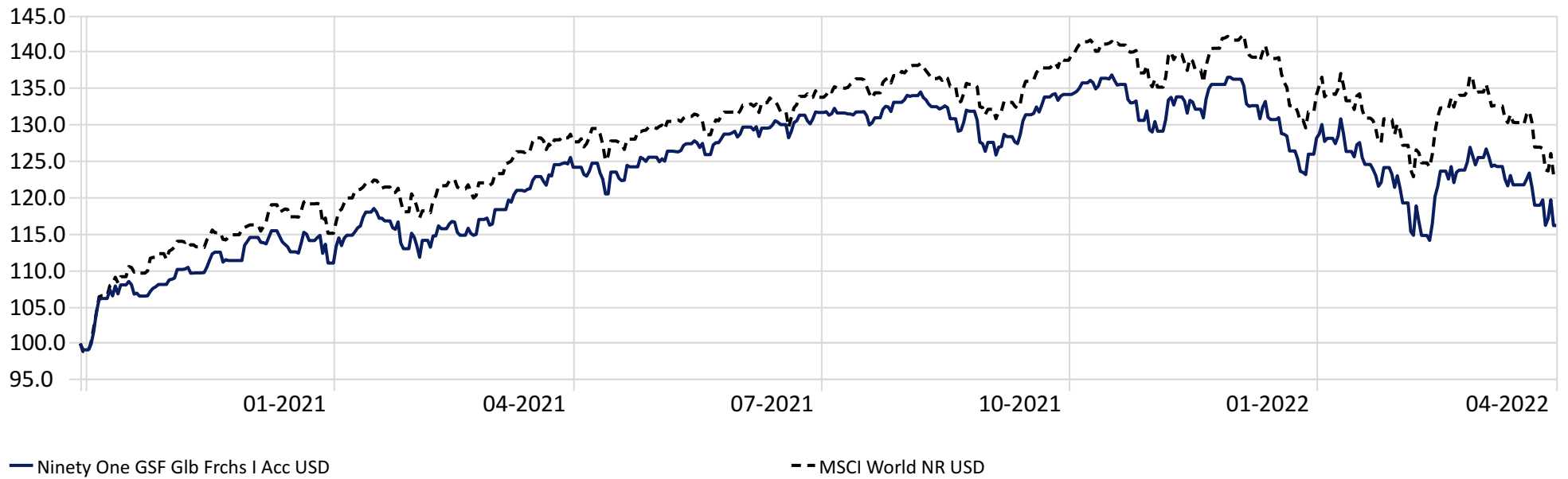
Investment Growth in USD - Since UWRF Vulcan inception

Time Period: 24-09-2020 to 30-04-2022



Investment Growth in USD - Since UWRF Ninety One inception

Time Period: 30-10-2020 to 30-04-2022



Since Inception Excess Returns - Ninety One

Time Period: 01-08-2008 to 30-04-2022

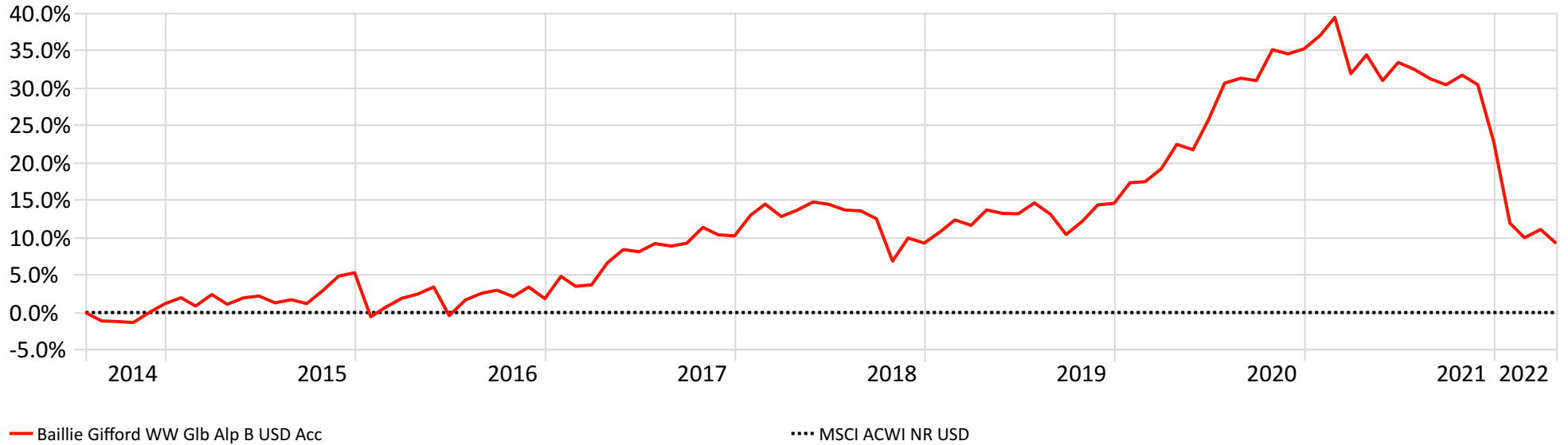
Calculation Benchmark: MSCI World NR USD



Since Inception Excess Returns - Baillie Gifford

Time Period: 01-08-2014 to 30-04-2022

Calculation Benchmark: MSCI ACWI NR USD



Since Inception Excess Returns - Vulcan

Time Period: 10-09-2013 to 30-04-2022

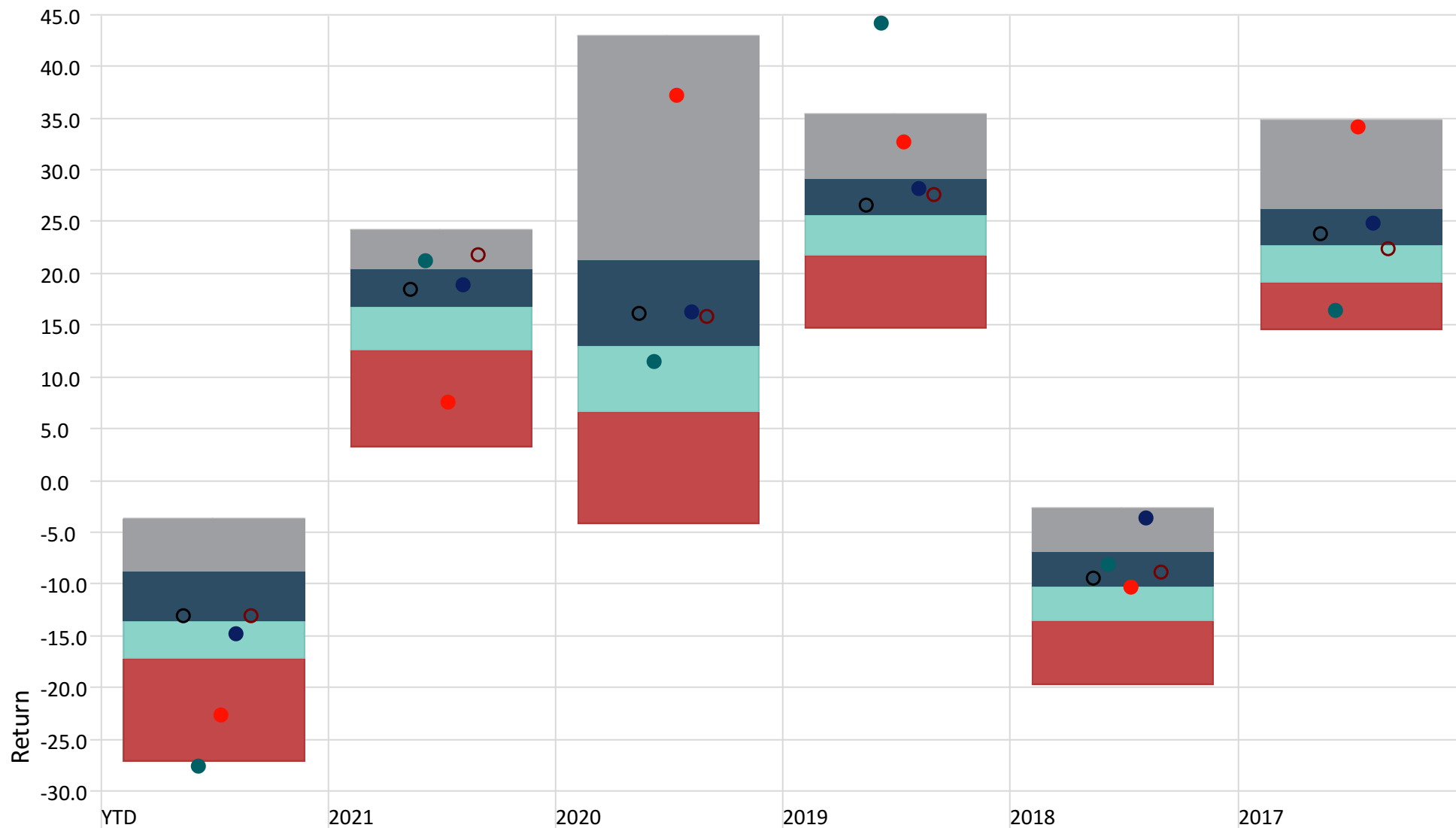
Calculation Benchmark: MSCI World NR USD



Performance Relative to Peer Group

Peer Group (5-95%): Global Equity USD Currency: US Dollar

■ Top Quartile ■ 2nd Quartile ■ 3rd Quartile ■ Bottom Quartile



● Baillie Gifford WW Glb Alp B USD Acc

● Vulcan Value Equity USD II Acc

● Ninety One GSF Glb Frchs I Acc USD

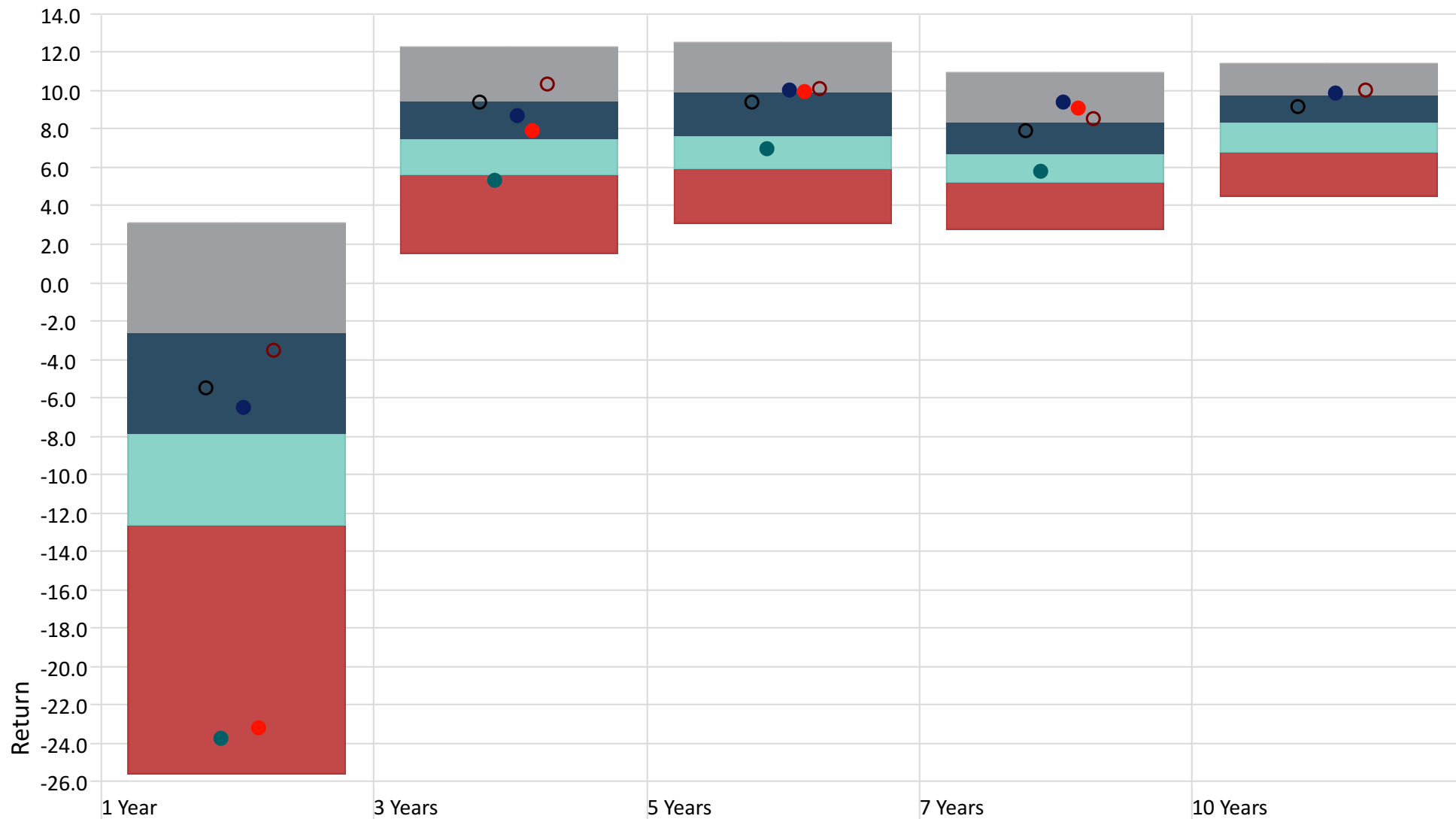
○ MSCI ACWI NR USD

○ MSCI World NR USD

Performance Relative to Peer Group

Peer Group (5-95%): Global Equity USD Currency: US Dollar

■ Top Quartile ■ 2nd Quartile ■ 3rd Quartile ■ Bottom Quartile



● Ninety One GSF Glb Frchs I Acc USD

● Vulcan Value Equity USD II Acc

● Baillie Gifford WW Glb Alp B USD Acc

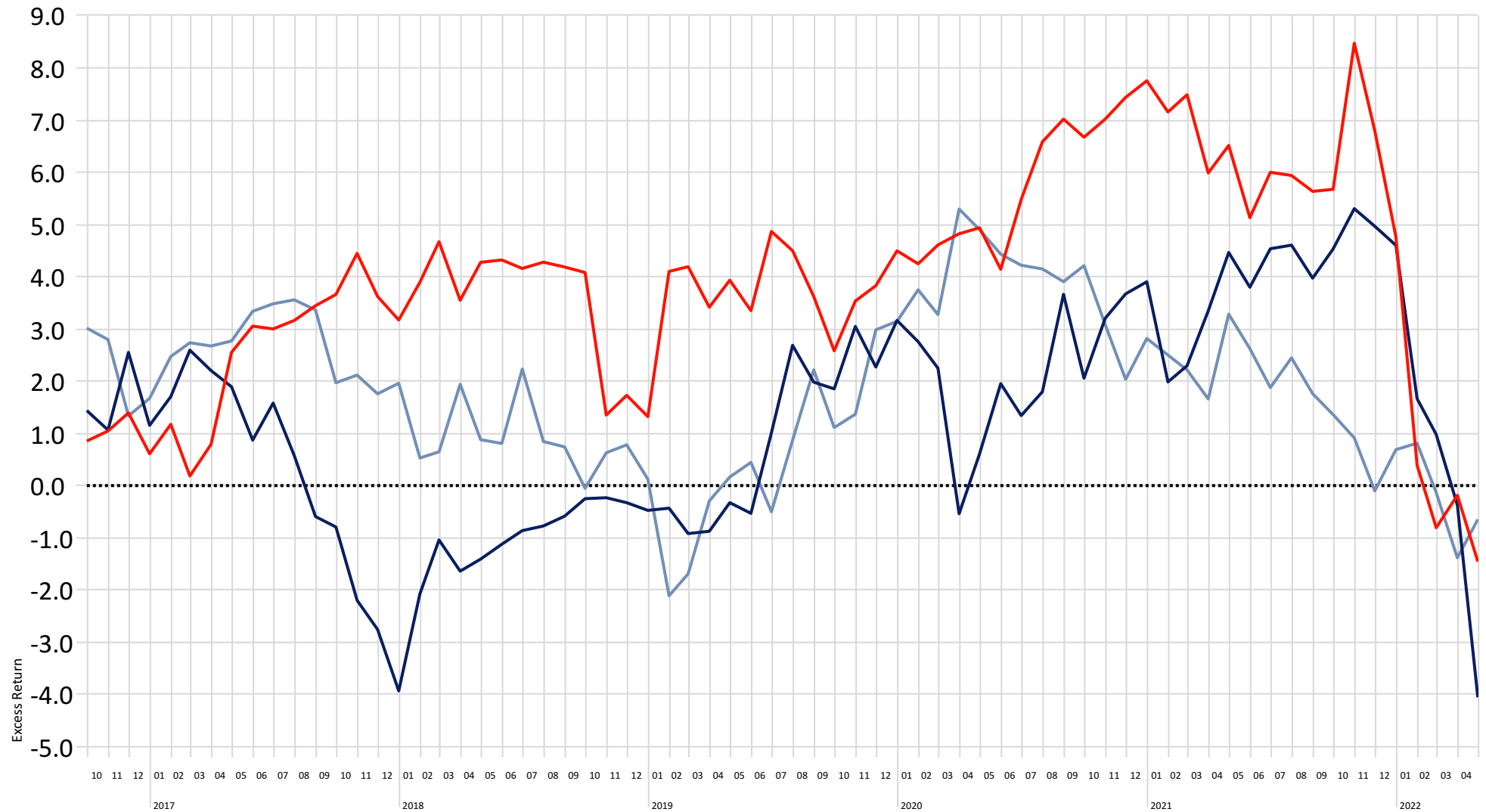
○ MSCI ACWI NR USD

○ MSCI World NR USD

Rolling 3yr Excess Returns (Alpha)

Time Period: Since Common Inception (01-10-2013) to 30-04-2022

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI ACWI NR USD



— Baillie Gifford WW Glb Alp B USD Acc

— Vulcan Value Equity USD II Acc

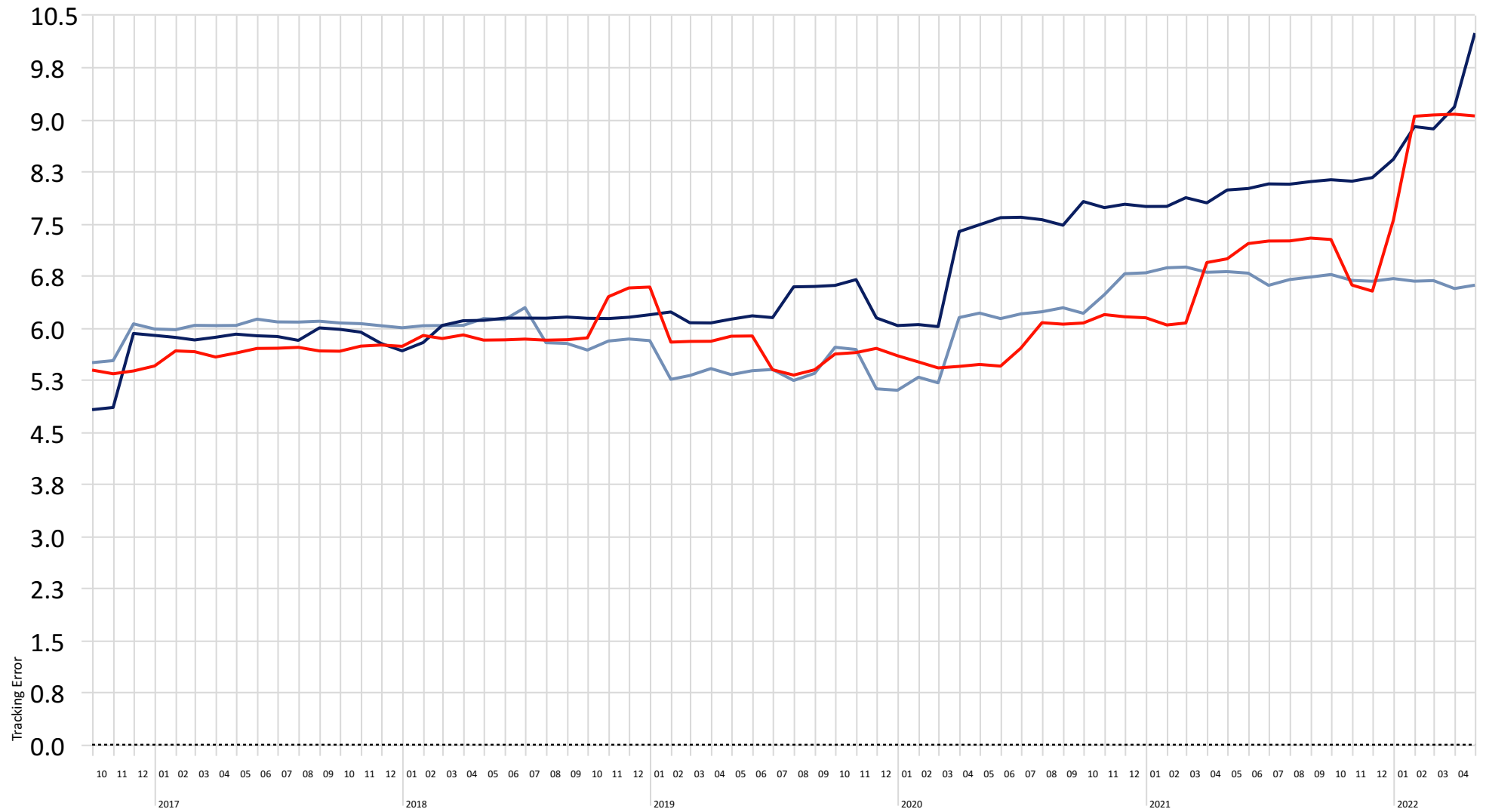
— Ninety One GSF Glb Frchs I Acc USD

.... MSCI ACWI NR USD

Rolling Tracking Error

Time Period: Since Common Inception (01-10-2013) to 30-04-2022

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI ACWI NR USD



— Baillie Gifford WW Glb Alp B USD Acc

— Vulcan Value Equity USD II Acc

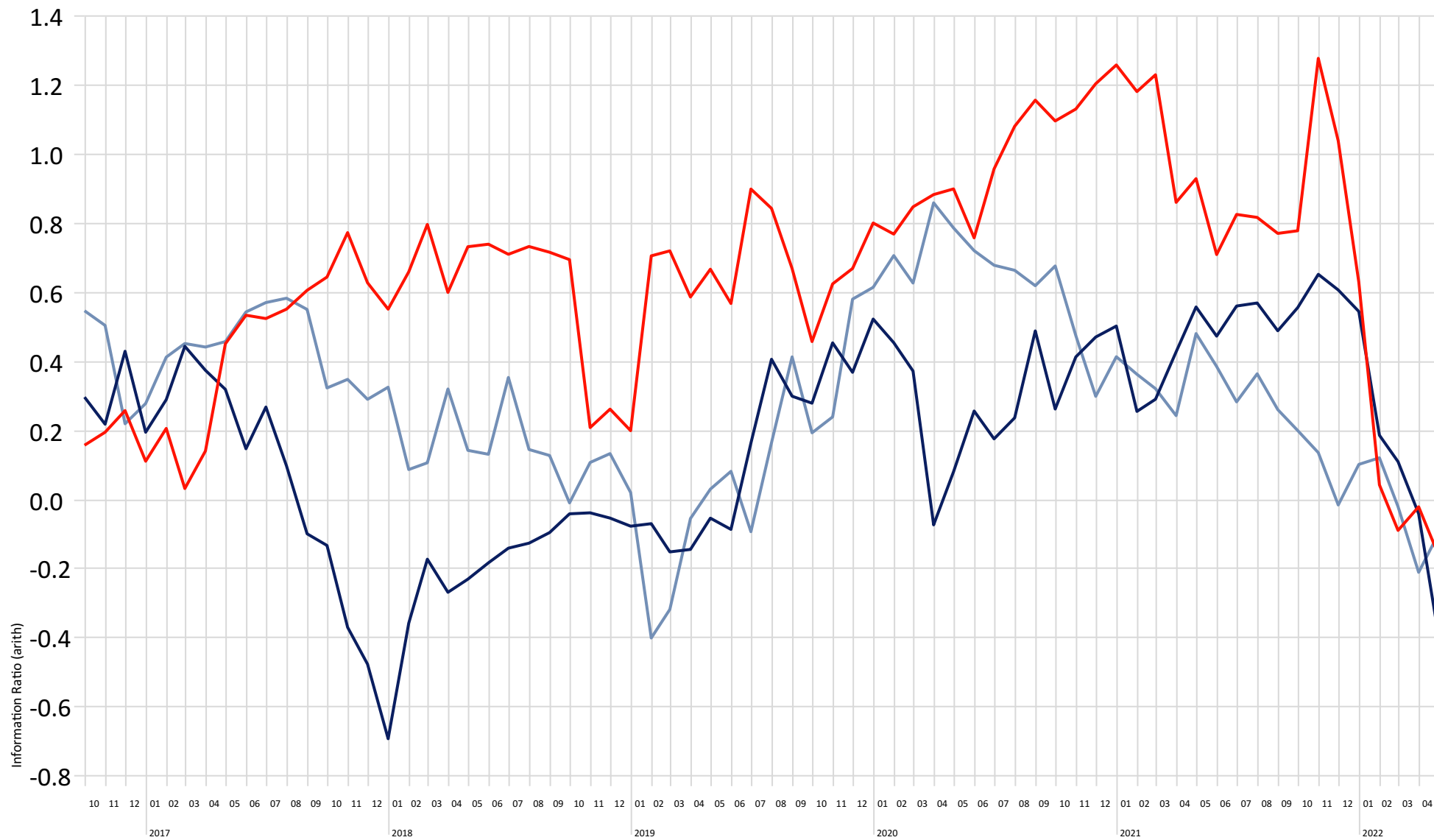
— Ninety One GSF Glb Frchs I Acc USD

.... MSCI ACWI NR USD

Rolling Information Ratio

Time Period: Since Common Inception (01-10-2013) to 30-04-2022

Rolling Window: 3 Years 1 Month shift Calculation Benchmark: MSCI ACWI NR USD



— Baillie Gifford WW Glb Alp B USD Acc

— Vulcan Value Equity USD II Acc

— Ninety One GSF Glb Frchs I Acc USD

Performance Metrics

Time Period: 01-10-2013 to 30-04-2022 Calculation Benchmark: MSCI ACWI NR USD

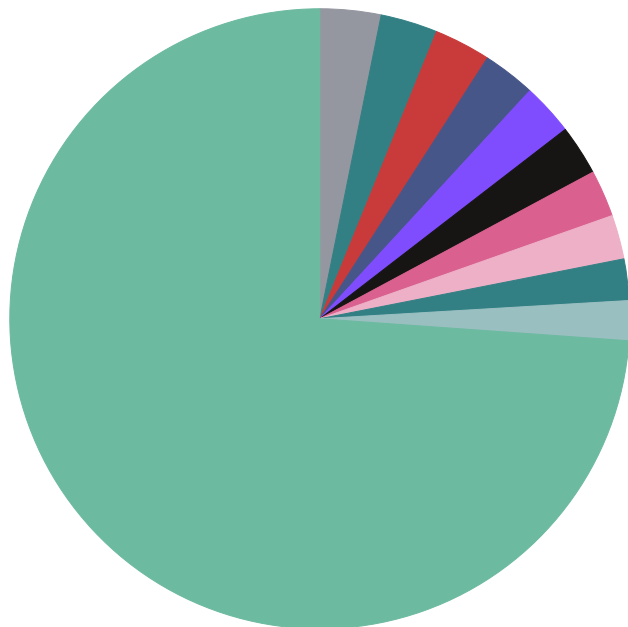
	Best Month	Worst Month	Best Quarter	Worst Quarter	Up Capture Ratio	Down Capture Ratio	Batting Average
Baillie Gifford WW Glb Alp B USD Acc	13.74	-13.30	25.77	-18.19	112.00	111.53	56.31
Vulcan Value Equity USD II Acc	14.21	-20.77	24.18	-28.25	116.57	128.53	50.49
Ninety One GSF Glb Frchs I Acc USD	9.56	-7.67	16.69	-12.78	94.04	83.59	50.49
MSCI ACWI NR USD	12.33	-13.50	19.22	-21.37	100.00	100.00	100.00

Financial Metrics

	Average Market Cap (mil)	Morningstar Rating Overall	P/E Ratio (TTM)	P/B Ratio (TTM)	Debt to Capital % (trailing)	Net Margin % (trailing)
Baillie Gifford WW Glb Alp B USD Acc	61 736.48	★★★	18.58	4.01	34.54	14.91
Vulcan Value Equity USD II Acc	91 544.70	★	21.95	6.31	40.08	21.19
Ninety One GSF Glb Frchs I Acc USD	123 635.87	★★★★	30.20	6.80	37.43	26.02
MSCI ACWI NR USD	99 286.54	—	16.94	2.57	39.08	18.92

Portfolio Holdings - Baillie Gifford WW Glb Alp B USD Acc

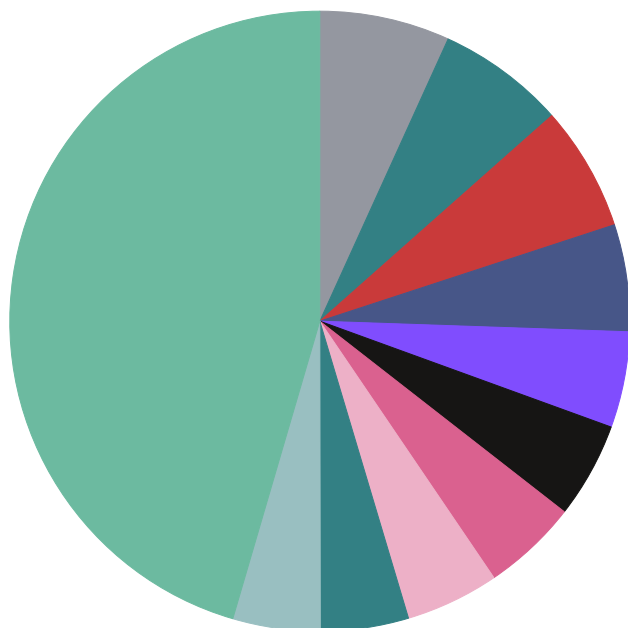
Portfolio Date: 28-02-2022



	%
● Anthem Inc	3.2
● Microsoft Corp	3.0
● Alphabet Inc Class C	2.9
● Moody's Corporation	2.8
● Martin Marietta Materials Inc	2.7
● Prosus NV Ordinary Shares - Class N	2.6
● Taiwan Semiconductor Manufacturing Co Ltd	2.4
● Reliance Industries Ltd ADR	2.3
● Amazon.com Inc	2.2
● BHP Group Ltd	2.1
● Other	73.9
Total	100.0

Portfolio Holdings - Vulcan Value Equity USD II Acc

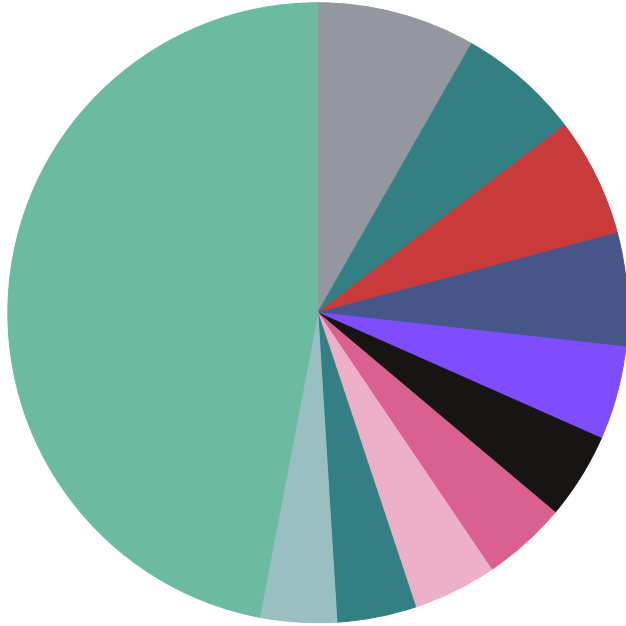
Portfolio Date: 31-03-2022



	%
● Amazon.com Inc	6.8
● TransDigm Group Inc	6.7
● Mastercard Inc Class A	6.5
● AppLovin Corp Ordinary Shares - Class A	5.6
● The Carlyle Group Inc	5.0
● Applied Materials Inc	5.0
● Upstart Holdings Inc Ordinary Shares	5.0
● Meta Platforms Inc Class A	4.9
● CoStar Group Inc	4.6
● Salesforce Inc	4.6
● Other	45.5
Total	100.0

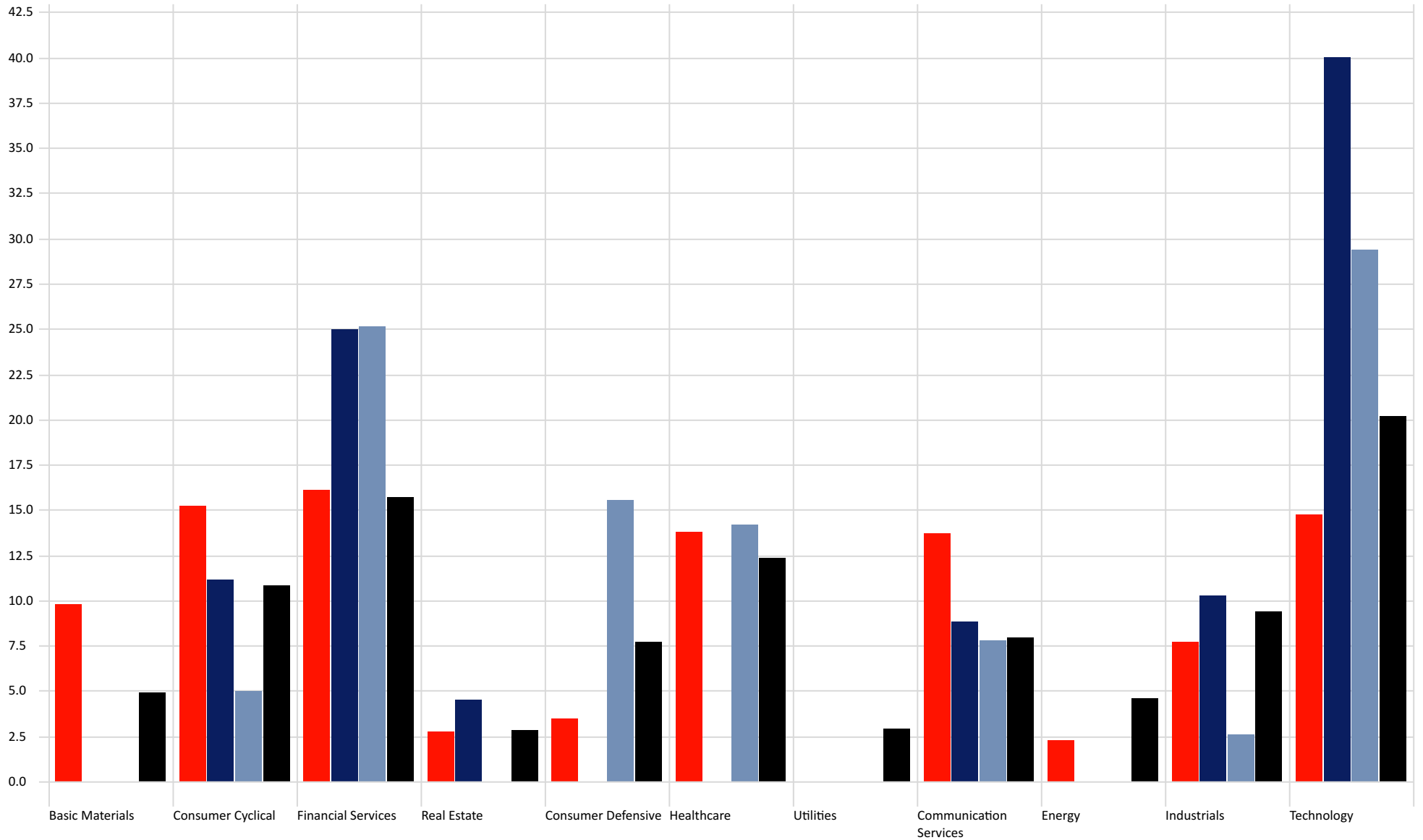
Portfolio Holdings - Ninety One GSF Glb Frchs I Acc USD

Portfolio Date: 31-03-2022



	%
● Visa Inc Class A	8.3
● ASML Holding NV	6.4
● Microsoft Corp	6.2
● Moody's Corporation	5.9
● Booking Holdings Inc	4.9
● Intuit Inc	4.5
● VeriSign Inc	4.4
● Nestle SA	4.4
● Philip Morris International Inc	4.1
● Roche Holding AG	4.0
● Other	47.0
Total	100.0

Sector Exposure

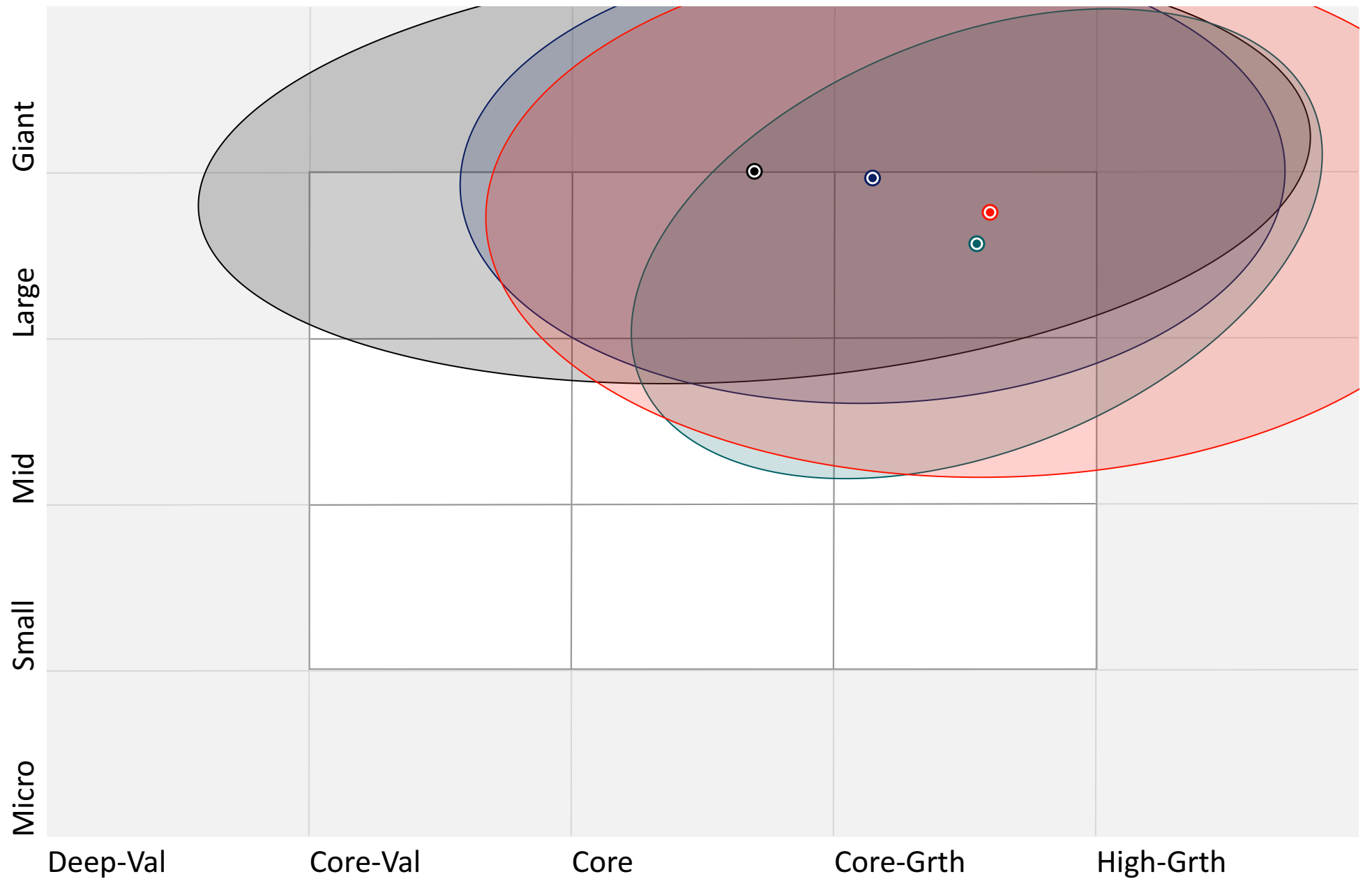


■ Baillie Gifford WW Glb Alp B USD Acc

■ Vulcan Value Equity USD II Acc

■ Ninety One GSF Glb Frchs I Acc USD

■ MSCI ACWI NR USD



- Baillie Gifford WW Glb Alp B USD Acc
- Vulcan Value Equity USD II Acc
- Ninety One GSF Glb Frchs I Acc USD
- MSCI ACWI NR USD