

Quantitative Multi-Asset Mutual Fund Strategy

Objective

Generate superior returns by rule-based investing in Mutual Funds

Execution

Strategy invests equally in up to 5 Mutual Funds at a time, reviewing and replacing them once every month, if necessary.

Category

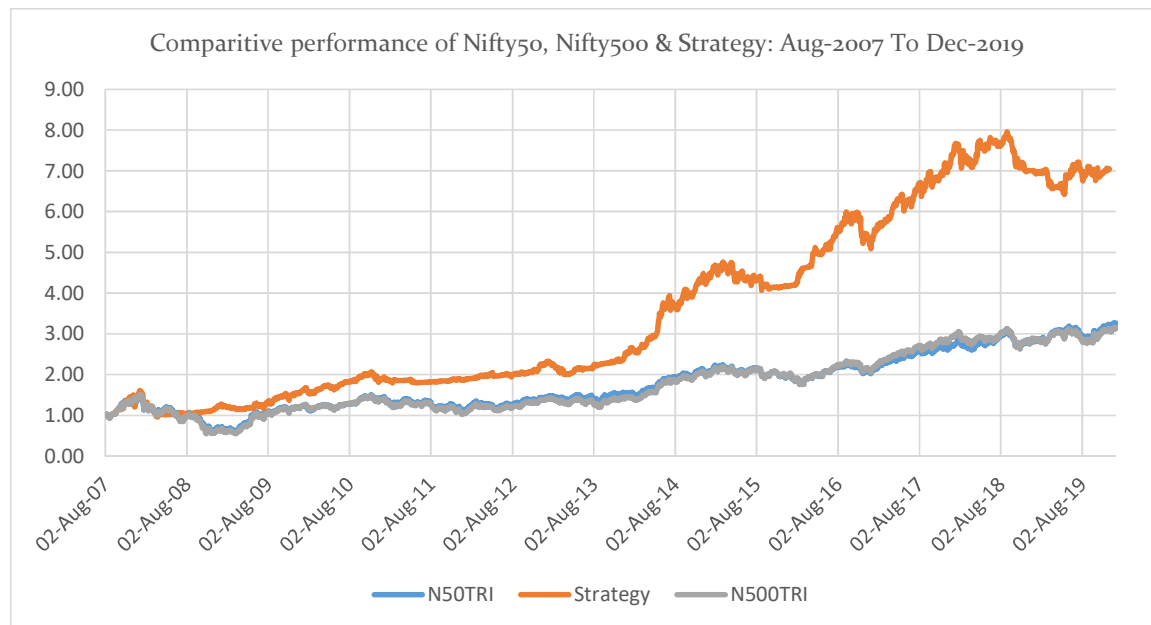
Short-term, multi-asset

Historical Performance

Strategy returns were back-tested using 13 years historical data from AMFI.

Cumulative returns

Rs. 10L invested in the strategy at the beginning of the test period would be worth 70.4L by the end, as against 32.0L for N50 TRI and 31.1L for N500 TRI



Annual Returns

10 Year annual returns for the strategy was 15.9% against 10% for N50 TRI and 9.7% for N500 TRI.

Strategy	5Y	10Y	12Y	Max DD	Variance
Strategy	9.65%	15.88%	17.15%	-19.21%	25.83%
N50 TRI	9.16%	10.04%	9.90%	-51.32%	24.05%
N500 TRI	8.91%	9.66%	9.64%	-56.78%	27.26%

Month-By-Month Returns

Strategy generated positive returns for 69% of the months over past 12 years.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2008	-18.8%	-6.4%	13.6%	-0.3%	0.5%	3.9%	3.9%	1.4%	2.1%	2.5%	2.4%	11.5%	-19.2%
2009	-5.5%	-1.9%	-2.7%	2.1%	5.8%	-0.6%	7.8%	5.5%	5.3%	-4.3%	6.1%	6.0%	26.5%
2010	-3.3%	-0.4%	7.3%	4.3%	-3.1%	5.4%	1.9%	1.3%	6.6%	1.7%	-3.9%	1.0%	19.6%
2011	-4.6%	0.7%	0.2%	0.5%	-3.7%	0.7%	0.6%	0.5%	0.8%	1.0%	1.4%	-1.0%	-3.4%
2012	1.6%	2.2%	1.1%	3.2%	-2.9%	1.7%	-1.4%	1.8%	1.6%	1.4%	7.0%	2.6%	21.4%
2013	-1.8%	-9.0%	-2.0%	2.3%	4.6%	-0.3%	3.4%	1.4%	1.3%	1.4%	1.5%	7.7%	10.1%
2014	3.4%	2.0%	6.6%	3.0%	17.1%	10.6%	-2.6%	2.3%	5.6%	3.9%	5.2%	2.0%	76.0%
2015	4.2%	0.6%	-2.1%	-3.7%	3.5%	-4.3%	0.0%	-3.1%	-2.2%	0.5%	0.5%	0.5%	-5.9%
2016	1.5%	8.6%	1.5%	7.1%	0.9%	3.3%	7.1%	4.4%	-1.2%	3.1%	-8.2%	-3.5%	26.1%
2017	5.7%	2.8%	4.7%	4.5%	-2.7%	1.6%	7.6%	0.3%	-0.6%	2.0%	4.2%	4.6%	40.3%
2018	0.2%	-1.2%	-3.6%	9.3%	-1.8%	1.0%	-0.5%	3.6%	-6.3%	-3.2%	-2.7%	-0.3%	-6.0%
2019	0.4%	-1.2%	-4.5%	1.0%	3.4%	2.1%	-1.1%	1.5%	-3.1%	1.3%	1.4%	0.2%	1.2%

Risk Factors

$$r_t - r_f = \alpha + \beta_1(r_m - r_f) + \beta_2SMB_t + \beta_3HML_t + \beta_4WML_t + \varepsilon_t$$

Model	Alpha*	MKT	SMB	HML	WML
CAPM¹	6.87 (6.13E-08)	0.996			
FF3F²	6.86 (7.14E-06)	0.996	0.004	-0.004	
C4F³	6.71 (8.15E-05)	0.997 (1.46E-08)	0.002 (0.950)	0.001 (0.980)	0.01 (0.716)

* Alpha values are in % annualized

Abbreviations

(1) CAPM: Capital Asset Pricing Model

(2) FF3: Fama & French 3Factor Model

(3) C4F: Carhart 4 Factor Model