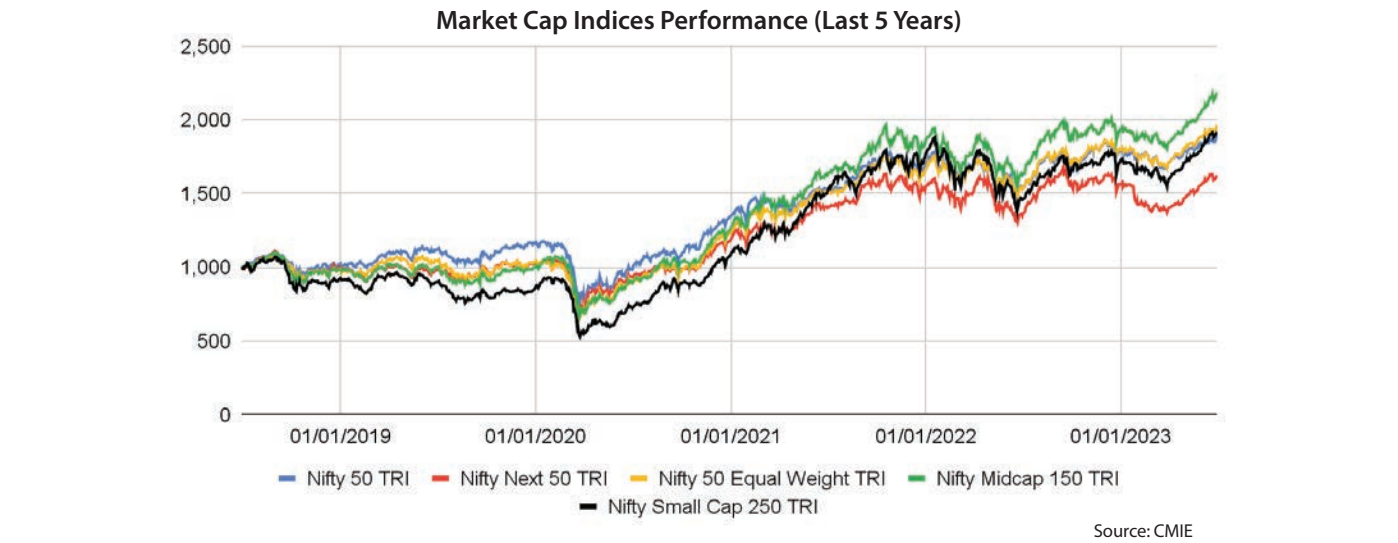
THE FACTOR FRONTIER

YOUR QUARTERLY GUIDE TO FACTOR INVESTING.

EDITION 01 | JUNE 2023

Market Outlook

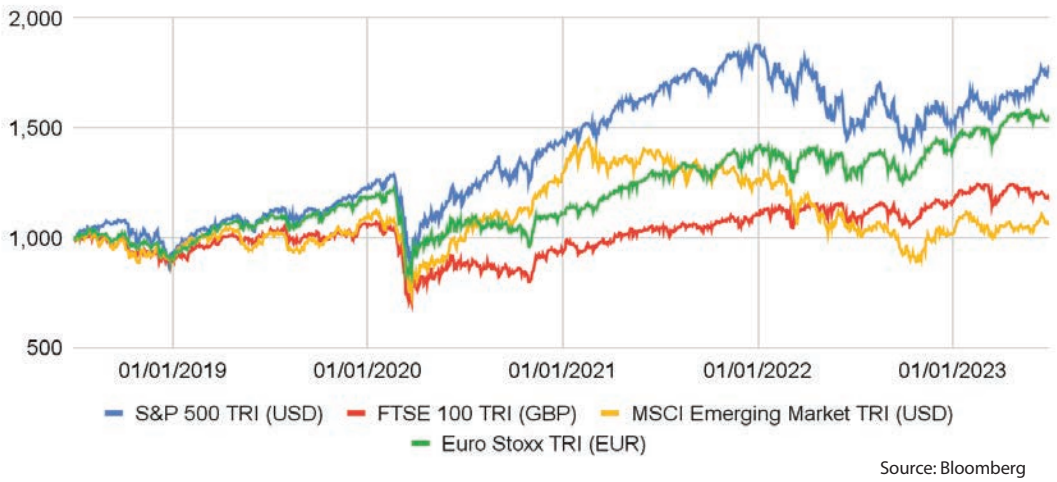


Source: CMIE

Markets have had a good one-year return with the smaller size firms outperforming the larger cap firms over the period. This outperformance in the medium and small cap indices was also observed in the past quarter. Over the 1-year period, the largest 100 firms represented by Nifty 50 and Nifty Next 50 Index posted 23% and 21% respectively while Midcap gave 34% and Smallcap posted 31% returns respectively. The Nifty 50 Equal Weight index returned 28% during this 1-year period. Over the past quarter the Nifty 50 and Nifty Next 50 generated 11% and 16%, while Nifty 50 Equal Weight, Midcap and Smallcap gave 15%, 18% and 20% respectively.

Market Outlook

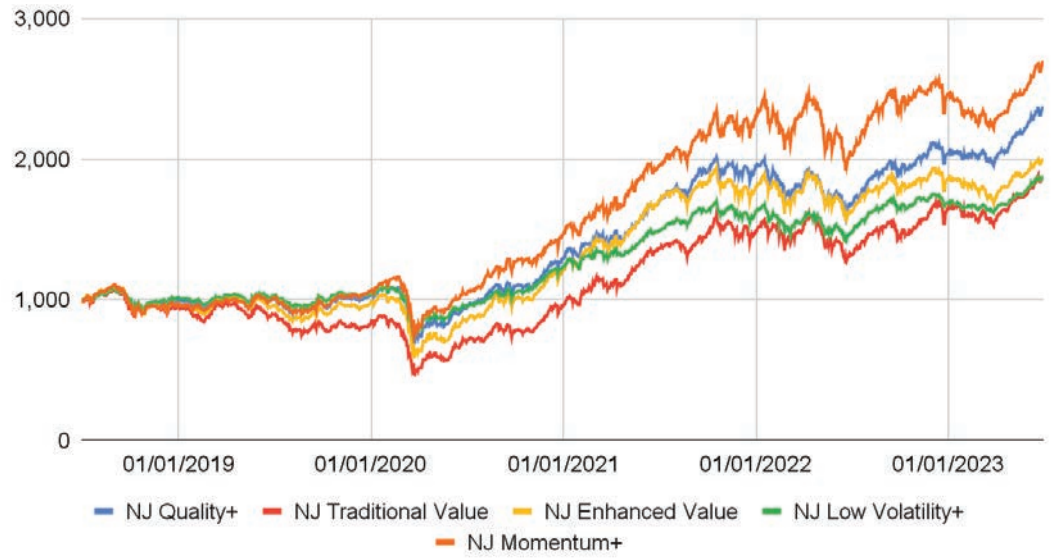
Global Market Performance (Last 5 Years)



Source: Bloomberg

Globally developed markets are having a good one year performance while the emerging markets in USD terms have been moderately positive for the year. The S&P 500 in US dollar was up +20% for the past one year period showing a strong US market performance. The UK markets were also positive over the last one year at +9% in GBP home currency. The broader Emerging markets in US dollars currency was in comparison marginally positive at +2% over the same one year time period. The Eurozone has also shown a great one year performance with the Euro Stoxx Index made of the largest European firms up +20% in Euros. The past quarter has also been positive for all the indices except the UK which has shown a flat return.

NJ Factor Performance (Last 5 Years)



Source: CMIE, NJ Smart Beta

The markets have posted a strong upward trend in the past quarter. Additionally, all factors exhibited strong positive performance during the quarter as well. Over a one-year period, the Nifty 500 TRI yielded a return of +23.9%. During this one-year period, all factors, Value, Quality, Low Volatility and Momentum have strongly outperformed the market index. Specifically, over the one-year time period, NJ Traditional Value posted a return of +41.6% while NJ Enhanced Value gave +23.4%, NJ Quality+ achieved +42.5%, while NJ Low Volatility+ and NJ Momentum+ delivered returns of +28.2% and +31.7% respectively.

Recent Point-to-Point Performance

Point-to-Point returns summary

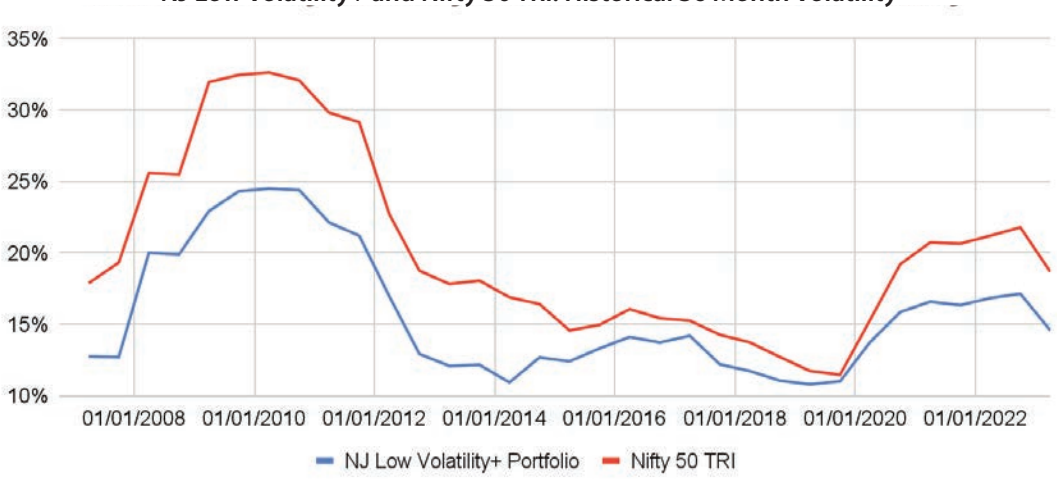
	NJ Quality+	NJ Momentum+	NJ Low Volatility+	NJ Traditional Value	NJ Enhanced Value	NIFTY 50 TRI
MTD(%)	6.03%	7.1%	5.31%	7.34%	5.49%	3.7%
3M(%)	20.06%	19.22%	15.48%	20.89%	17.67%	12.87%
6M(%)	17.0%	10.41%	11.57%	15.42%	8.51%	6.48%
YTD(%)	16.6%	9.65%	11.59%	14.36%	7.87%	6.58%
1Y(%)	41.69%	31.67%	28.15%	41.63%	23.41%	22.81%
3Y (ann.)(%)	36.31%	37.48%	25.66%	38.8%	33.13%	24.5%
5Y (ann.)(%)	18.89%	21.94%	13.48%	13.46%	14.92%	13.71%
10Y (ann.)(%)	22.06%	26.82%	18.76%	19.91%	19.22%	14.0%

Data from 30th Sep, 2006 to 30th June, 2023

Historical Factor Trends

Historical Trends in NJ's Low Volatility+ Factor

NJ Low Volatility+ and Nifty 50 TRI: Historical 36 Month Volatility



Source: CMIE, NJ Smart Beta

NJ Low Volatility+: Historical 36 Month Beta Against Nifty 50 TRI

Source: CMIE, NJ Smart Beta

NJ Low Volatility+ and Nifty 50 TRI Parameter Averages

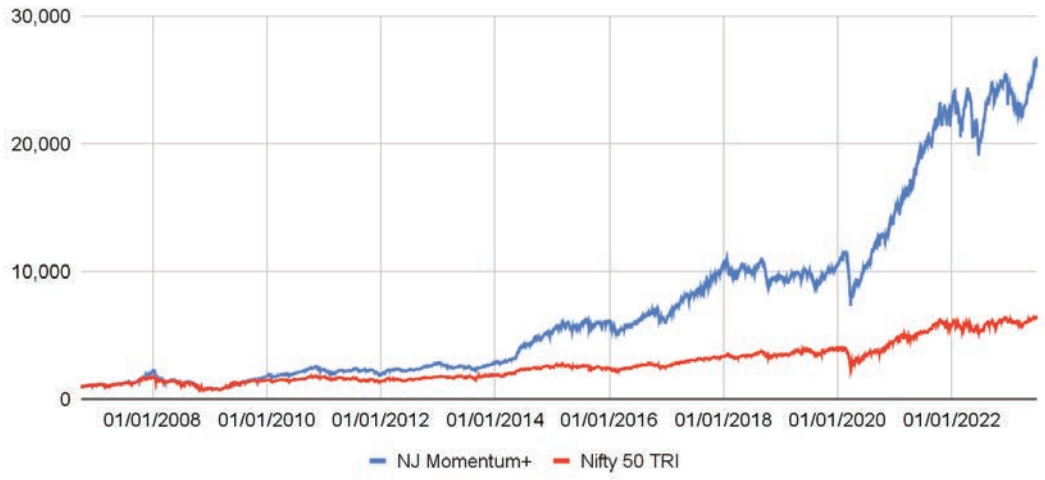
Parameter	NJ Low Volatility+	Nifty 50 TRI
36M Annualised Volatility	14.7%	15.4%
36M Beta	0.68	1.0

As on 30th June 2023

Overall, NJ Low Volatility+ portfolio outperforms Nifty 50 TRI on the basis of volatility parameters. NJ Low Volatility+ portfolio has a lower annualised volatility than the Nifty 50 TRI by +3.0%. Similarly, on the basis of Beta calculated over 36 months, NJ Low Volatility+ portfolio has significantly low beta of 0.69 to the Nifty 50 TRI.

Historical Trends in NJ's Momentum+ Factor

NJ Momentum+ and Nifty 50 TRI: Cumulative Growth Chart



NJ Momentum+ and Nifty 50 TRI Returns

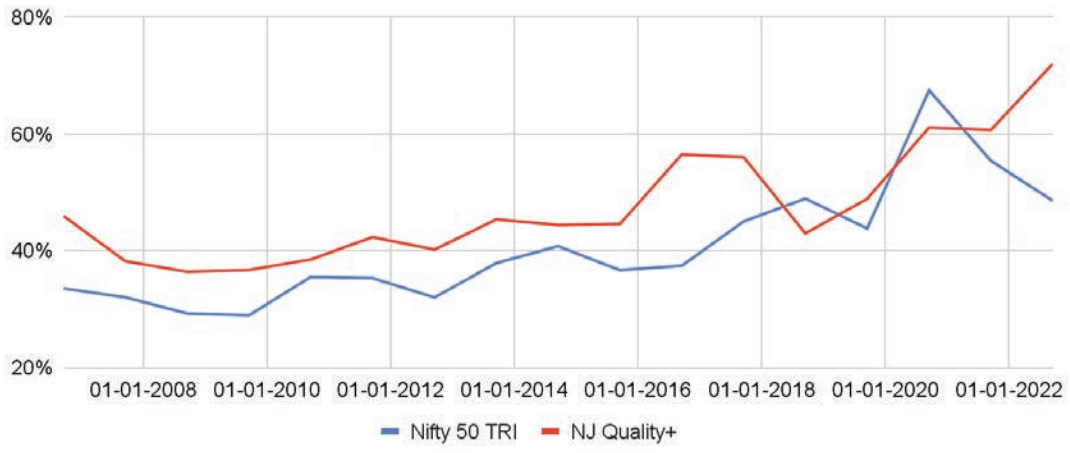
Parameter	YTD Return	1-Year Return	3-Year CAGR	5-Year CAGR	10-Year CAGR
NJ Momentum+	9.65%	31.67%	37.48%	21.94%	26.82%
Nifty 50 TRI	6.58%	22.81%	24.5%	13.71%	14%

As on 30th June 2023

Overall, NJ Momentum+ portfolio significantly outperforms Nifty 50 Index over the medium to long term which is evident from the 3, 5 and 10 years CAGR %. Momentum has also done better than the broader market in the past 1 year and year-to-date absolute returns. The NJ Momentum+ portfolio generated 9.7% and 31.67% while the Nifty 50 Index gave 6.6% and 22.8% over the year to date and 1-year period respectively.

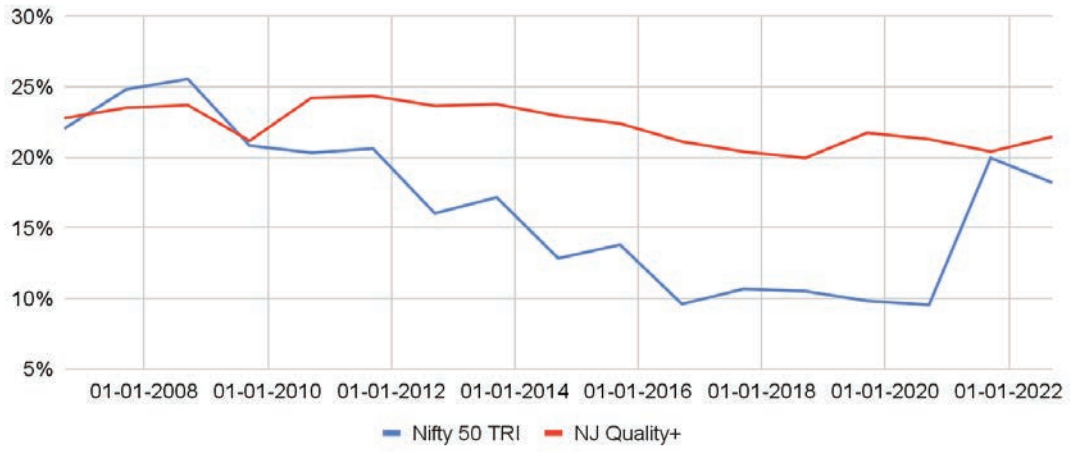
Historical Trends in NJ's Quality Factor

NJ Quality+ and Nifty 50 TRI: Dividend Payout



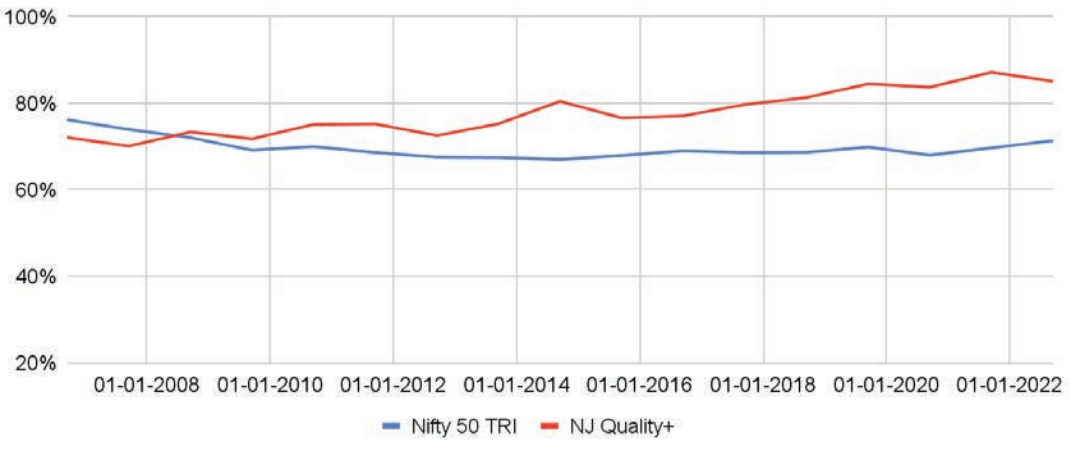
Source: CMIE, NJ Smart Beta

NJ Quality+ and Nifty 50 TRI: ROE



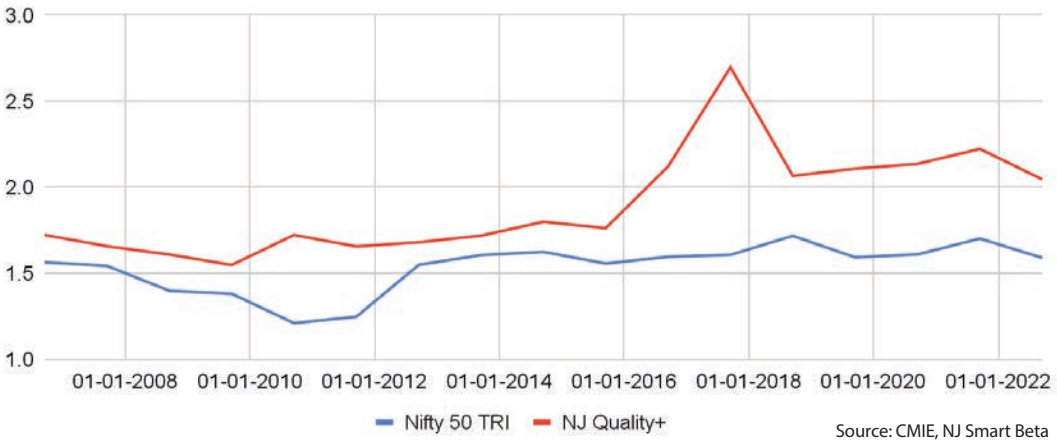
Source: CMIE, NJ Smart Beta

NJ Quality+ and Nifty 50 TRI: Equity to Total Capital



Source: CMIE, NJ Smart Beta

NJ Quality+ and Nifty 50 TRI: Current Ratio



Source: CMIE, NJ Smart Beta

NJ Quality+ Portfolio and Nifty 50 TRI Parameter Averages

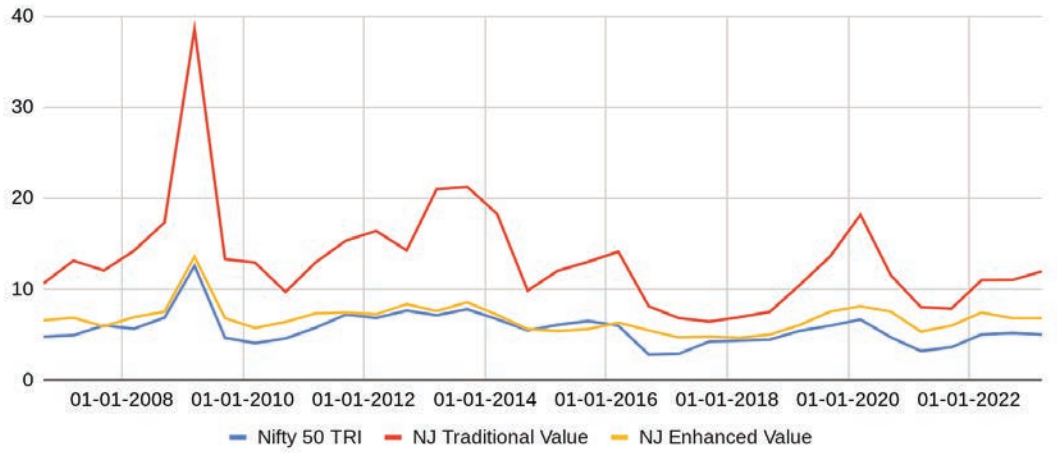
Parameter	NJ Quality +	Nifty 50 TRI
Dividend Payout	71.95%	48.54%
ROE	21.47%	18.20%
Equity To Total Capital	85.08%	71.36%
Current Ratio	2.05	1.57

As on 30th June 2023

Comparing the Quality parameters, the Dividend Payout of NJ Quality+ portfolio has out-performed Nifty 50's by 23%. Similarly, the ROE of the NJ Quality+ was better than the Nifty 50 by 3.3%. Also, NJ Quality+ portfolio has a higher equity to total capital by 13.7% and higher current ratio by 0.5 over the Nifty 50.

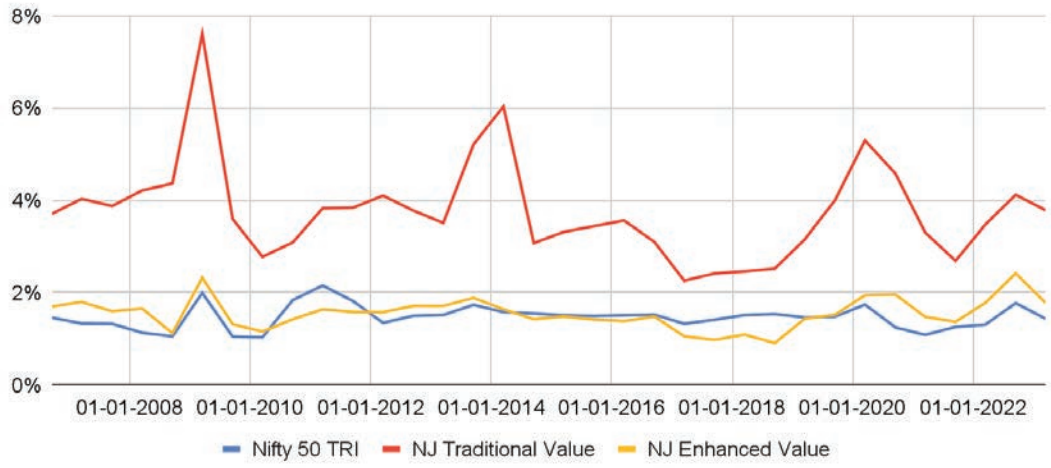
Historical Trends in NJ's Traditional Value Factor

NJ Value and Nifty 50 TRI: Earnings to Price



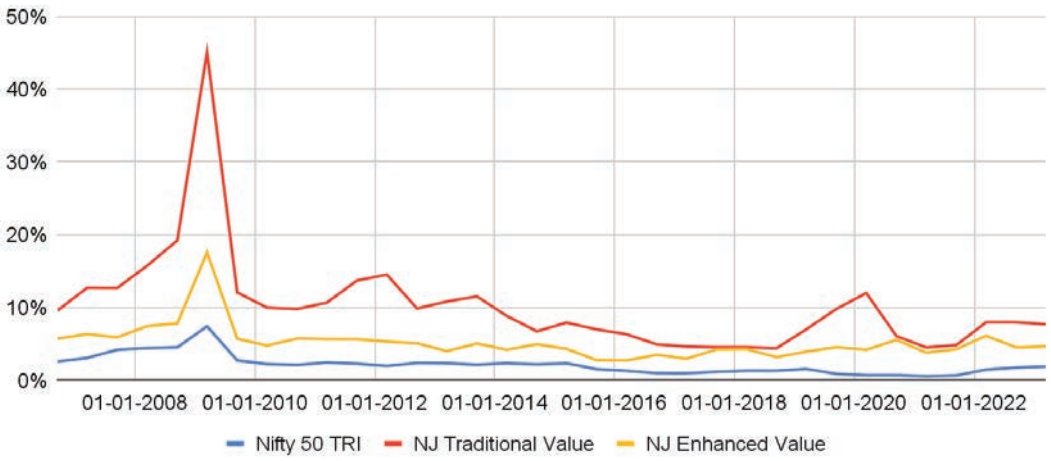
Source: CMIE, NJ Smart Beta

NJ Value and Nifty 50 TRI: Dividend Yield



Source: CMIE, NJ Smart Beta

NJ Value and Nifty 50 TRI: Growth to PE



Source: CMIE, NJ Smart Beta

NJ Value Portfolios and Nifty 50 TRI Parameter Averages

Parameter	NJ Traditional Value	NJ Enhanced Value	Nifty 50 TRI
Growth To PE	7.69%	4.65%	1.89%
Dividend Yield	3.78%	1.78%	1.43%
Earnings To Price	11.97	6.92	5.02

As on 30th June 2023

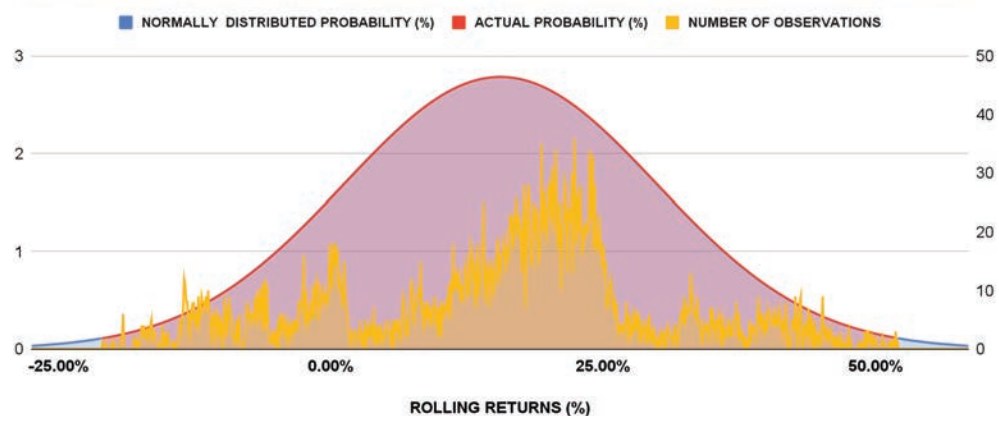
Overall, NJ Traditional Value and NJ Enhanced Value Portfolios have outperformed Nifty 50 TRI. The NJ Traditional Value and NJ Enhanced Value portfolios have a higher Growth to PE value compared to the Nifty 50 Index by 5.8% and 2.8% respectively.

Similarly, for Dividend Yield and Earnings to Price, NJ Traditional Value portfolio has a higher yield by 2.4% and 7.0 respectively over the Nifty 50 index. While the NJ Enhanced Value has a higher Dividend Yield and Earnings to Price of 0.35% and 1.9 respectively.

Risk and Return Statistical Analysis of Factors

NJ Traditional Value

NJ Traditional Value: Normal Distribution vs Actual Returns Distribution of Rolling Returns



NJ Traditional Value: Rolling Returns Over Time

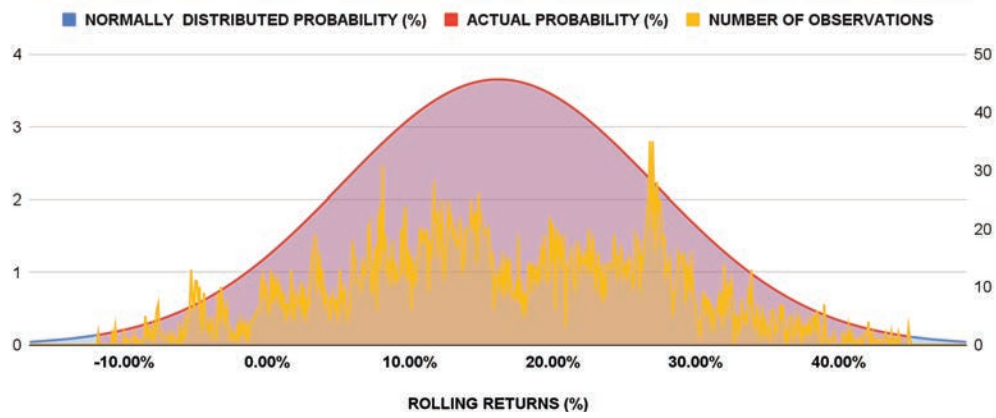
3Yr Return Distribution Summary

NJ Traditional Value	
Mean Return	15.54%
Median Return	17.83%
Std Dev Of Returns	14.33%
Max Return	52.00%
Min Return	-21.01%
Negative Observation (%)	17.54%
% Of Observations Between 0% & 10%	11.05%
% Of Observations Between 10% & 15%	11.27%
% Of Observations Between 15% & 20%	19.51%
% Of Observations Between 20% & 30%	27.52%
% Of Observations >= 30% Return	13.10%
Total Observations	5,022

Data from 30th Sep, 2006 to 30th June 2023

NJ Enhanced Value

NJ Enhanced Value: Normal Distribution vs Actual Returns Distribution of Rolling Returns



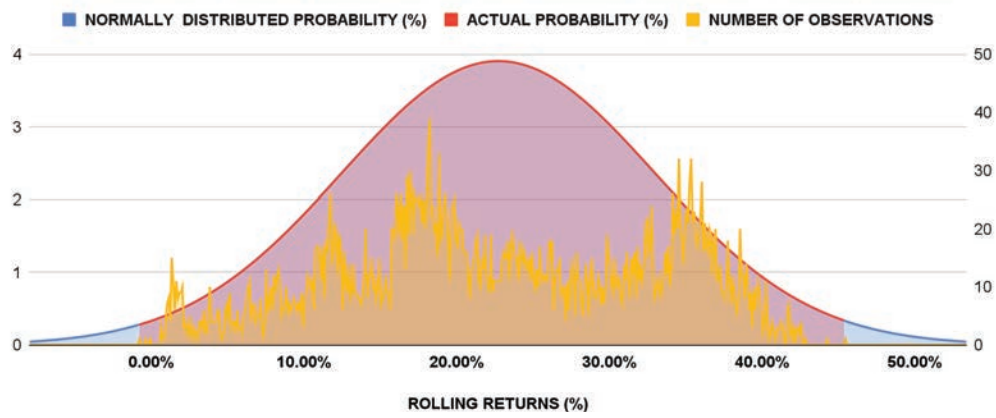
NJ Enhanced Value: Rolling Returns Over Time

3Yr Return Distribution Summary

NJ Enhanced Value	
Mean Return	16.16%
Median Return	15.40%
Std Dev Of Returns	10.92%
Max Return	44.98%
Min Return	-11.84%
Negative Observation (%)	7.43%
% Of Observations Between 0% & 10%	22.48%
% Of Observations Between 10% & 15%	18.54%
% Of Observations Between 15% & 20%	12.76%
% Of Observations Between 20% & 30%	29.47%
% Of Observations >= 30% Return	9.32%
Total Observations	5,022

Data from 30th Sep, 2006 to 30th June 2023

NJ Momentum+: Normal Distribution vs Actual Returns Distribution of Rolling Returns



NJ Momentum+: Rolling Returns Over Time

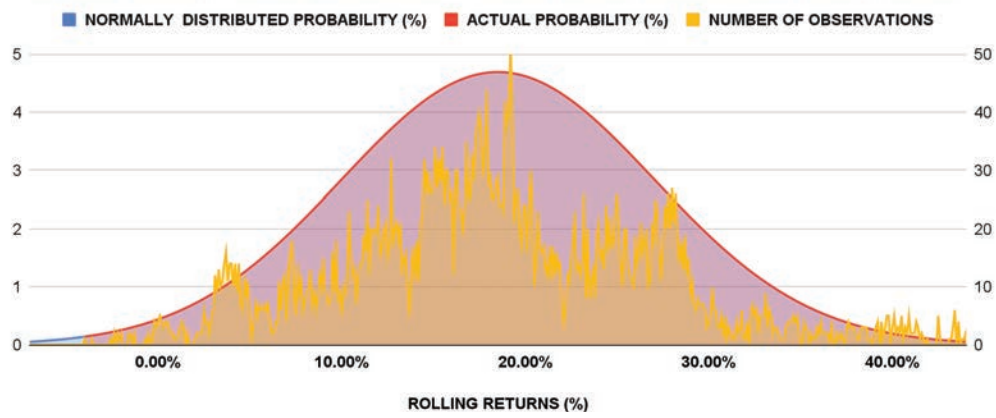
3Yr Return Distribution Summary

NJ Momentum+	
Mean Return	22.71%
Median Return	21.81%
Std Dev Of Returns	10.22%
Max Return	45.36%
Min Return	-0.78%
Negative Observation (%)	0.06%
% Of Observations Between 0% & 10%	10.89%
% Of Observations Between 10% & 15%	12.62%
% Of Observations Between 15% & 20%	20.91%
% Of Observations Between 20% & 30%	25.57%
% Of Observations >= 30% Return	29.95%
Total Observations	5,022

Data from 30th Sep, 2006 to 30th June 2023

NJ Low Volatility+

NJ Low Volatility+: Normal Distribution vs Actual Returns Distribution of Rolling Returns



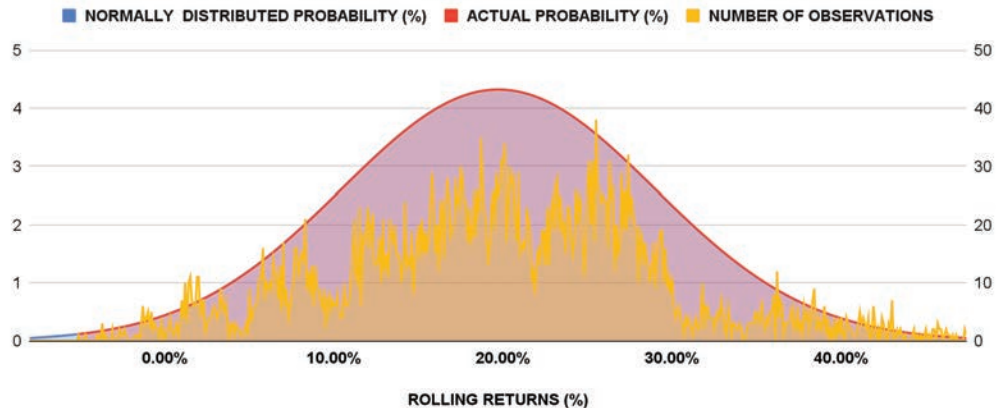
NJ Low Volatility+: Rolling Returns Over Time

3Yr Return Distribution Summary

NJ Low Volatility+	
Mean Return	18.53%
Median Return	17.94%
Std Dev Of Returns	8.51%
Max Return	45.65%
Min Return	-3.99%
Negative Observation (%)	0.62%
% Of Observations Between 0% & 10%	14.36%
% Of Observations Between 10% & 15%	17.70%
% Of Observations Between 15% & 20%	29.05%
% Of Observations Between 20% & 30%	30.82%
% Of Observations >= 30% Return	7.45%
Total Observations	5,022

Data from 30th Sep, 2006 to 30th June 2023

NJ Quality+: Normal Distribution vs Actual Returns Distribution of Rolling Returns



NJ Quality+: Rolling Returns Over Time

3Yr Return Distribution Summary

NJ Quality+	
Mean Return	19.72%
Median Return	19.80%
Std Dev Of Returns	9.23%
Max Return	48.56%
Min Return	-5.11%
Negative Observation (%)	1.23%
% Of Observations Between 0% & 10%	13.98%
% Of Observations Between 10% & 15%	13.90%
% Of Observations Between 15% & 20%	22.08%
% Of Observations Between 20% & 30%	39.23%
% Of Observations >= 30% Return	9.58%
Total Observations	5,022

Data from 30th Sep, 2006 to 30th June 2023

Factor Correlations

Correlation Matrix based on excess return of each factor over Nifty 500 TRI

	NJ Low Volatility+	NJ Momentum+	NJ Quality+	NJ Enhanced Value	NJ Traditional Value
NJ Low Volatility+	1	0.55	0.77	0.51	0.32
NJ Momentum+	0.55	1	0.68	0.63	0.53
NJ Quality+	0.77	0.68	1	0.75	0.57
NJ Enhanced Value	0.51	0.63	0.75	1	0.75
NJ Traditional Value	0.32	0.53	0.57	0.75	1

Source: CMIE, NJ Smart Beta. Data from 30th June, 2013 to 30th June, 2023

Exploring the correlations and interconnections between factors is of extreme importance as it helps to design an optimally diversified factor portfolio. The factor correlation has been calculated by using excess return over Nifty 500 TRI.

NJ Low Volatility+ is very strongly correlated with NJ Quality+ (0.77). While the degree of correlation between the NJ Low Volatility+ is moderately strong with the NJ Momentum 100 (0.55), it is fairly weak with the NJ Traditional Value (0.32) and moderate with NJ Enhanced Value (0.51) portfolio.

The degree of correlation between NJ Momentum+ is moderately strong with all the other indexes i.e. NJ Quality+ (0.68), NJ Traditional Value (0.53) and NJ Enhanced Value (0.63).

NJ Quality+ has moderately strong correlation with NJ Traditional Value (0.57) and strong correlation with NJ Enhanced Value (0.75).

NJ Enhanced Value has strong correlation with NJ Traditional Value (0.75).

Research Spotlight

Our focus this month is on three research articles that examine different weighting methodologies.

1. Not All Low Volatility Portfolios Are The Same
(https://www.man.com/maninstitute/not-all-volatility-portfolios)

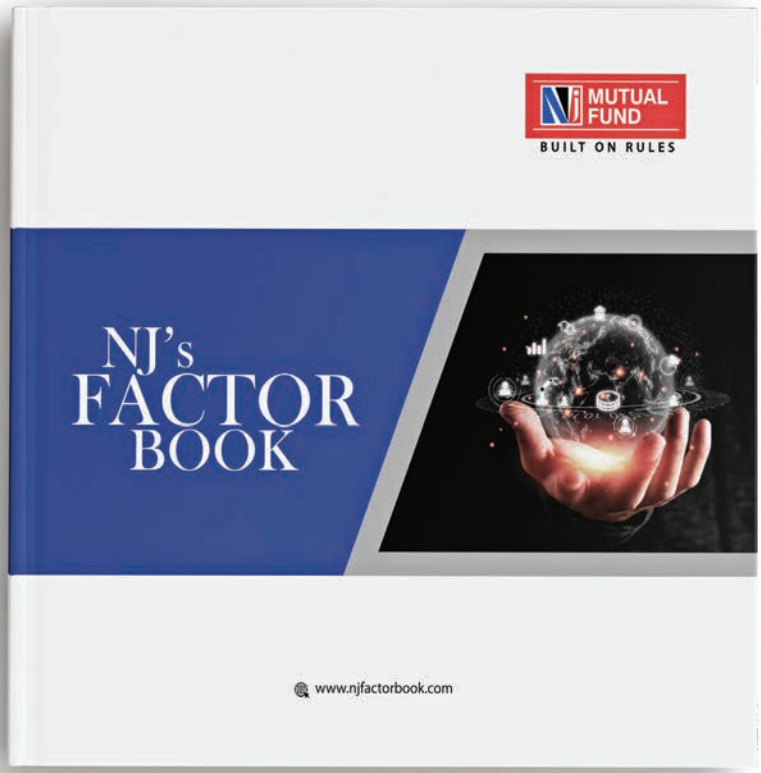
The authors argue that low-volatility strategies should not be viewed as a homogenous category and identify implementation techniques that can lead to differentiated performance.

2. Betting against Beta (https://doi.org/10.1016/j.jfineco.2013.10.005)

The authors find that low beta stocks outperform high beta stocks. This outperformance is even more pronounced when the long and short portfolios are beta weighted. Their paper added to the literature on low volatility.

3. Optimal Versus Naive Diversification: How Inefficient is the 1/N Portfolio Strategy?
(https://doi.org/10.1093/rfs/hhm075)

The authors evaluate out of sample performance of 14 weighing methods and conclude that it is not easy to beat equal weighting methodology out of sample. One of the interesting papers on the effectiveness of equal weighting methods.



A Comprehensive Exploration of Factor Investing.

Download your e-book today with QR code

Disclaimer: NJ Quality+, NJ Traditional Value, NJ Momentum+, NJ Enhanced Value and NJ Low Volatility+ is an in-house proprietary module developed by NJ Asset Management Private Limited and is not an indication of portfolio / return of any Investment Approach / Scheme Offered by NJ Asset Management Private Limited (NJAMPL). Past Performance may or may not sustain in future. All data/information used in the preparation of this material is dated and may or may not be relevant any time after the issuance of this material. NJAMPL takes no responsibility for updating any data/information in this material from time to time. In the preparation of this material NJAMPL has used information that is publicly available, including information developed in-house. Some of the material used herein may have been obtained from members/persons other than the NJAMPL and/or its affiliates and which may have been made available to the NJAMPL and/or to its affiliates. Information gathered and material used herein is believed to be from reliable sources. NJAMPL however does not warrant the accuracy, reasonableness and/or completeness of any information. For data reference to any third party in this material no such party will assume any liability for the same. We have included statements /opinions/ recommendations in this material, which contain words, or phrases such as "will", "expect", "should", "believe" and similar expressions or variations of such expressions that are "forward looking statements". Actual results may differ materially from those suggested by the forward looking statements due to risk or uncertainties associated with our expectations with respect to, but not limited to, exposure to market risks, general economic and political conditions in India and other countries globally, the monitory and interest policies of India, inflation, unanticipated turbulence in interest rates, foreign exchange rates, equity prices, the performance of the financial markets in India and globally, changes in domestic and foreign laws, regulations and taxes.