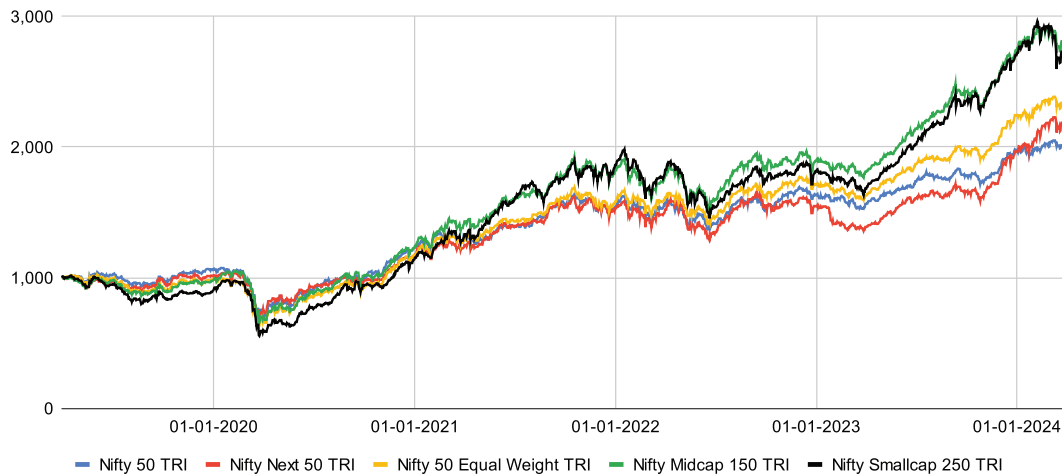# THE FACTOR FRONTIER

YOUR QUARTERLY GUIDE TO FACTOR INVESTING.

EDITION 04 | MAR 2024

Market Outlook

Market Cap Indices Performance (Last 5 Years)

Legend: Nifty 50 TRI | Nifty Next 50 TRI | Nifty 50 Equal Weight TRI | Nifty Midcap 150 TRI | Nifty Smallcap 250 TRI

Source: CMIE

Data from 31st Mar, 2019 to 31st Mar, 2024

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 30.08% and 61.40% respectively while Nifty Midcap 150 index gave 57.54% and Nifty Smallcap 250 index posted 64.15% returns respectively. The Nifty 50 Equal Weight Index returned 45.02% during this 1-year period. Over the past quarter the Nifty 50 and Nifty Next 50 indices generated 2.92% and 13.85%, while Nifty 50 Equal Weight, Midcap and Smallcap indices gave 5.41%, 4.18% and 2.19% respectively.

## Global Market Performance (Last 5 Years)
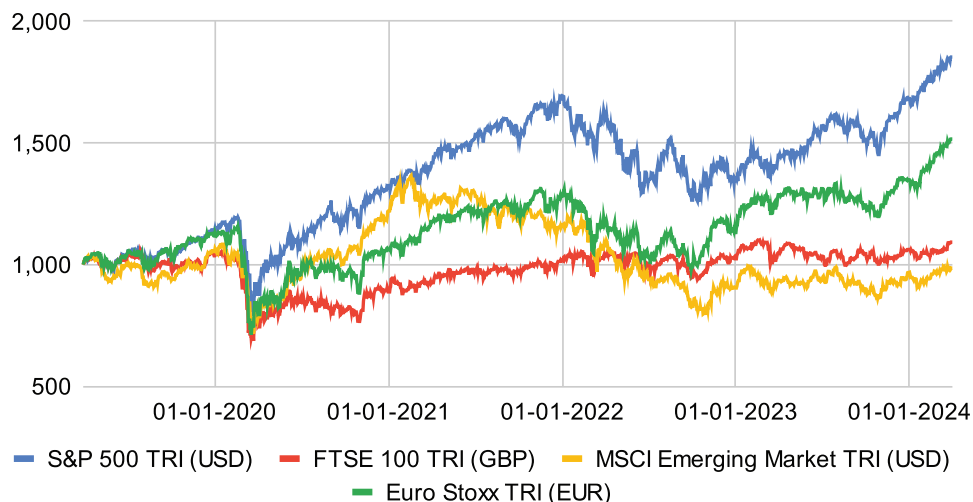
Source: Bloomberg   Data from 31st Mar,2019 to 31st Mar,2024

Globally, developed markets are having a good one year performance while the emerging markets in USD terms have generated a good positive return for the year. The S&P 500 in USD was up +27.86% for the past one year period showing a strong US market performance. The UK markets were also positive over the last one year at +4.20% in GBP home currency. The broader Emerging markets in USD currency was positive at +5.34% 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 +17.81% in Euros. The past quarter has also been positive for all the indices.

NJ Factor Performance (Last 5 Years)
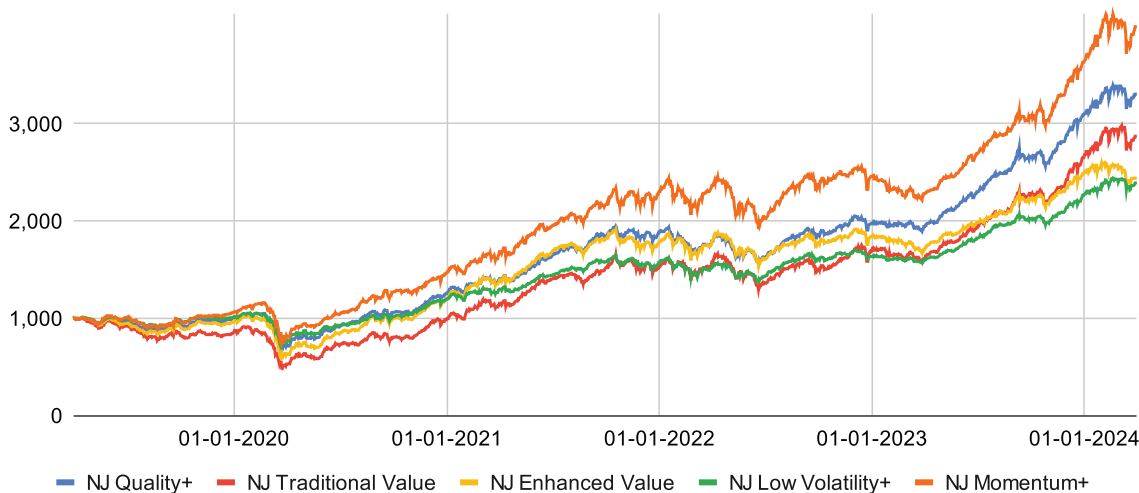
Source: CMIE, NJ Smart Beta   Data from 31st Mar,2019 to 31st Mar,2024

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 50 TRI yielded a return of +30.08%. 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 Model posted a return of +78.06% while NJ Enhanced Value Model gave +42.77%, NJ Quality+ Model achieved +70.07%, while NJ Low Volatility+ Model and NJ Momentum+ Model delivered returns of +49.75% and +75.24% respectively.

## Recent Point to Point Performance

Point-to-Point returns summary

	NJ Quality+	NJ Enhanced Value	NJ Momentum+	NJ Low Volatility+	NJ Traditional Value	NIFTY 50 TRI
MTD(%)	-1.22	-3.75	0.27	-0.77	-1.00	1.57
3M(%)	6.90	-1.97	10.09	5.54	8.30	2.92
6M(%)	24.88	10.67	31.39	19.10	27.31	13.94
YTD(%)	6.90	-1.97	10.09	5.54	8.30	2.92
1Y(%)	70.07	42.77	75.24	49.75	78.06	30.08
3Y (ann.)(%)	34.35	21.81	35.34	23.65	37.02	16.79
5Y (ann.)(%)	27.42	19.87	32.31	19.41	23.88	15.62
10Y (ann.)(%)	23.93	19.42	29.38	19.98	21.84	14.26
All-time(ann.)(%)	19.89	15.51	23.41	17.92	16.54	12.38

Data from 30th Sep, 2006 to 31st Mar, 2024

Historical Factor Trends

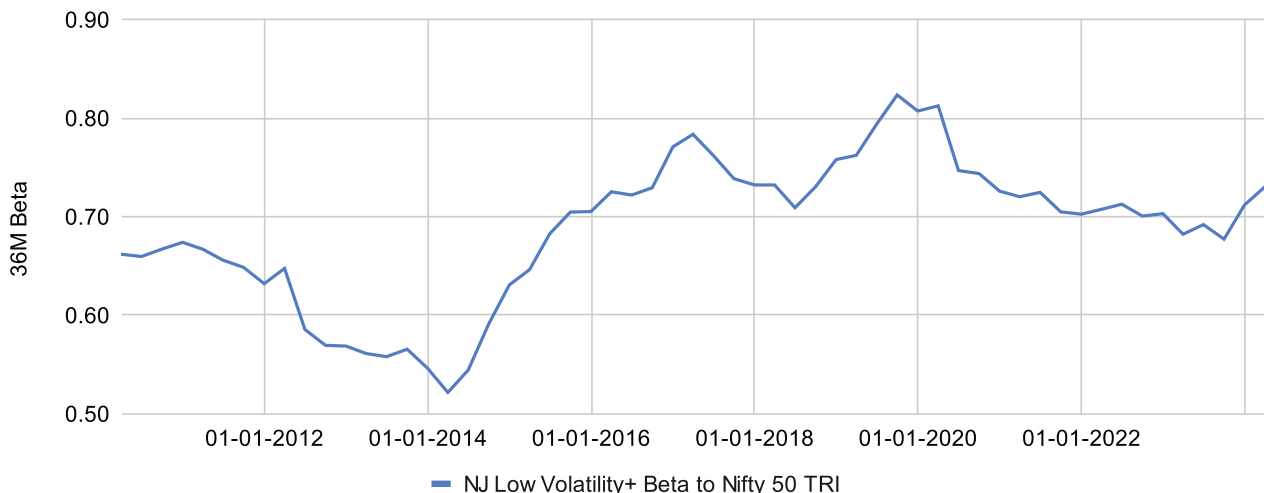## Historical Trends in NJ's Low Volatility+ Model

NJ Low Volatility+ vs Nifty 50 TRI: Historical 36 Month Volatility
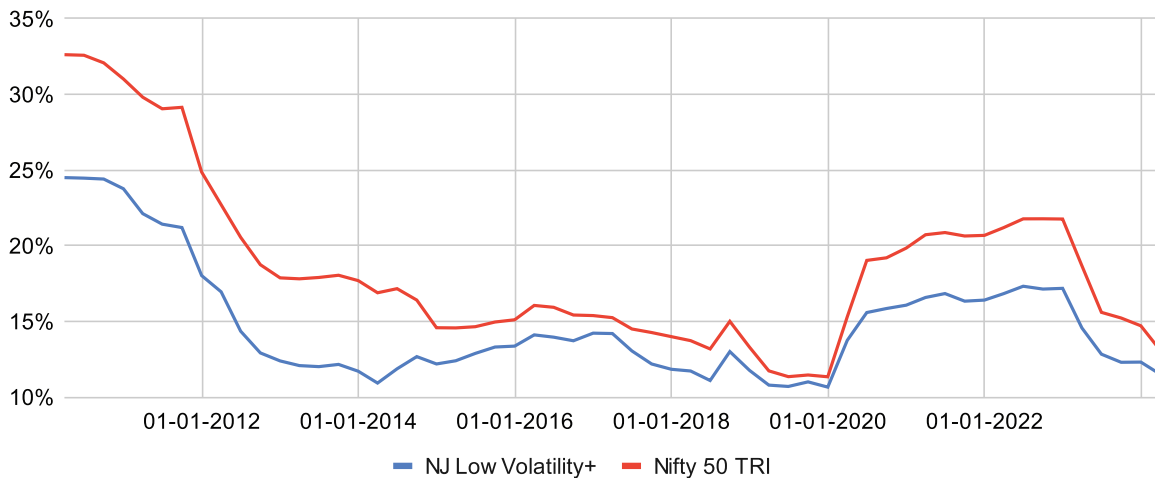
Source: CMIE, NJ Smart Beta   Data from 31st Mar,2007 to 31st Mar,2024

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

Source: CMIE, NJ Smart Beta   Data from 31st Mar,2007 to 31st Mar,2024

## NJ Low Volatility+ and Nifty 50 TRI Parameter Averages

Parameter	NJ Low Volatility+	Nifty 50 TRI
36M Weekly Annualised Volatility	11.50%	13.08%
36M Weekly Beta	0.73	1.00

As on 31st Dec, 2023

On the basis of volatility parameters, NJ Low Volatility+ Model has lower volatility than Nifty 50. NJ Low Volatility+ has a lower annualised volatility than the Nifty 50 by +1.58%. Similarly, on the basis of Beta calculated over 36 months, NJ Low Volatility+ has a significantly low beta of 0.73 to the Nifty 50.

Historical Trends in NJ's Momentum+ Model

NJ Momentum+ vs Nifty 50 TRI: Cumulative Growth Chart
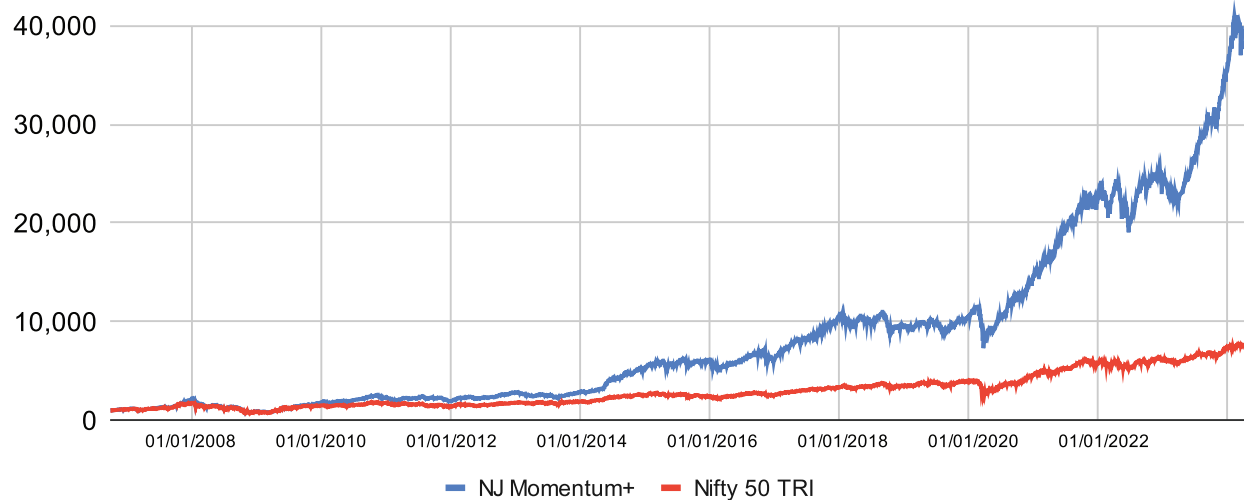
Source: CMIE, NJ Smart Beta

Data from 30th Sept,2006 to 31st Mar,2024

## NJ Momentum+ and Nifty 50 TRI Returns

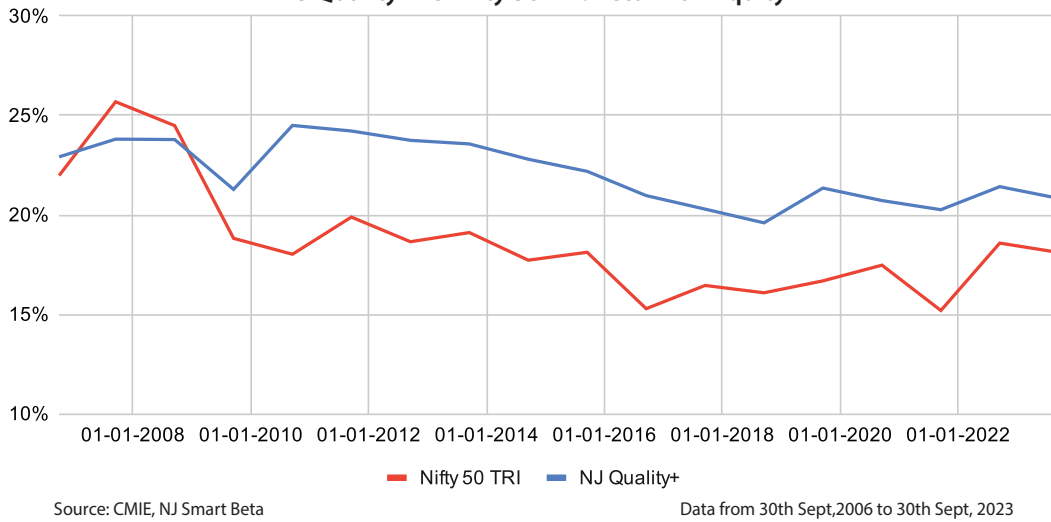| Parameter	YTD Return	1-Year Return	3-Year CAGR	5-Year CAGR	10-Year CAGR	Since Inception CAGR
NJ Momentum+	0.27%	75.24%	35.34%	32.31%	29.38%	23.41%
Nifty 50 TRI	1.57%	30.08%	16.79%	15.62%	14.26%	12.38%

As on 31st Mar, 2024

The NJ Momentum+ Model has higher momentum metrics to the Nifty 50 Index over the medium to long term which is evident from the 3, 5 and 10 years CAGR %. NJ Momentum+ has also done better than the market index over the past 1 year. The NJ Momentum+ generated 75.24% while the Nifty 50 Index gave 30.08% over the 1-year period respect.
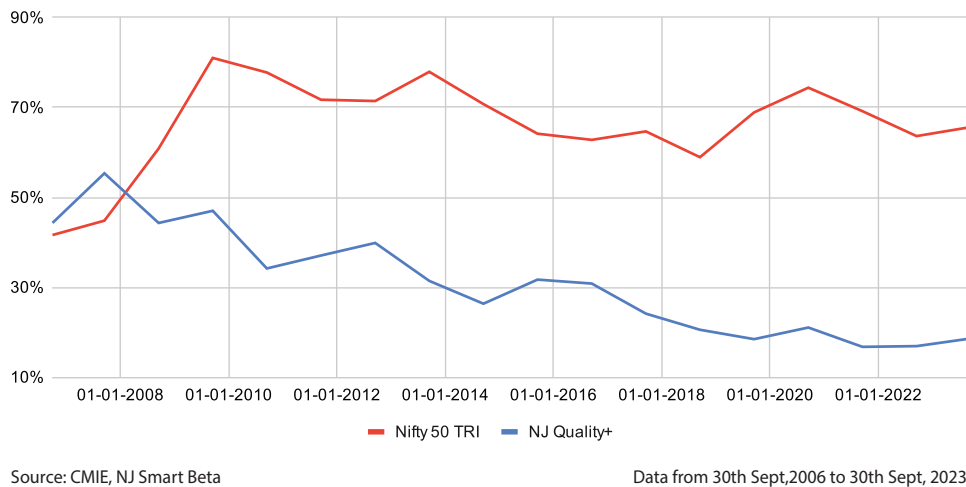
Historical Trends in NJ's Quality+ Model
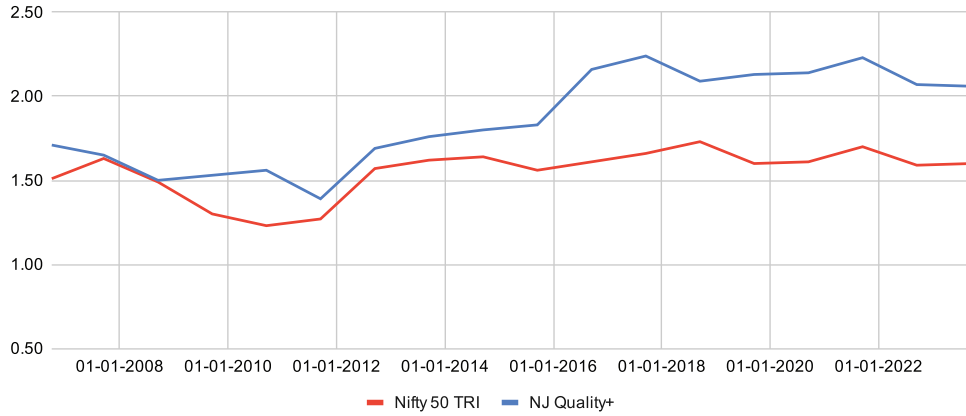
NJ Quality+ vs Nifty 50 TRI : Dividend Payout

Nifty 50 TRI   NJ Quality+

Data from 30th Sept,2006 to 30th Sept, 2023
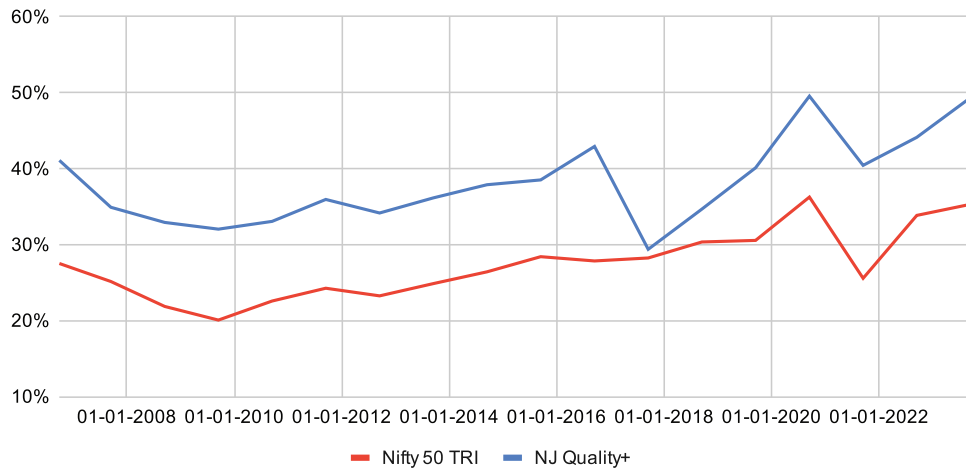
NJ Quality+ vs Nifty 50 TRI: Return on Equity

Nifty 50 TRI   NJ Quality+

Data from 30th Sept,2006 to 30th Sept, 2023

NJ Quality+ vs Nifty 50 TRI : Debt to Equity

Nifty 50 TRI   NJ Quality+

Data from 30th Sept,2006 to 30th Sept, 2023

NJ Quality+ vs Nifty 50 TRI: Current Ratio

Source: CMIE, NJ Smart Beta   Data from 30th Sept,2006 to 30th Sept, 2023

NJ Quality+ and Nifty 50 TRI Parameter Averages

Parameter	NJ Quality +	Nifty 50 TRI
Dividend Payout	49.35%	35.31%
ROE	20.83%	18.11%
Debt To Equity	18.60%	65.63%
Current Ratio	2.06	1.60

As on 30th Sept, 2023. Numbers represent simple averages of all constituents.
Debt to Equity ratio is for non lending companies only

When comparing the quality parameters, the Dividend Payout of the NJ Quality+ Model is higher than that of the Nifty 50 by 14.04%. Similarly, the Return on Equity (ROE) of the NJ Quality+ Model was 2.72% higher than that of the Nifty 50. The Debt to Equity Ratio of NJ Quality+ is 18.60%, which is much lower than Nifty 50 at 65.63%. Additionally, the NJ Quality+ exhibits a higher current ratio of 2.06, while the current ratio of Nifty 50 is 1.60.
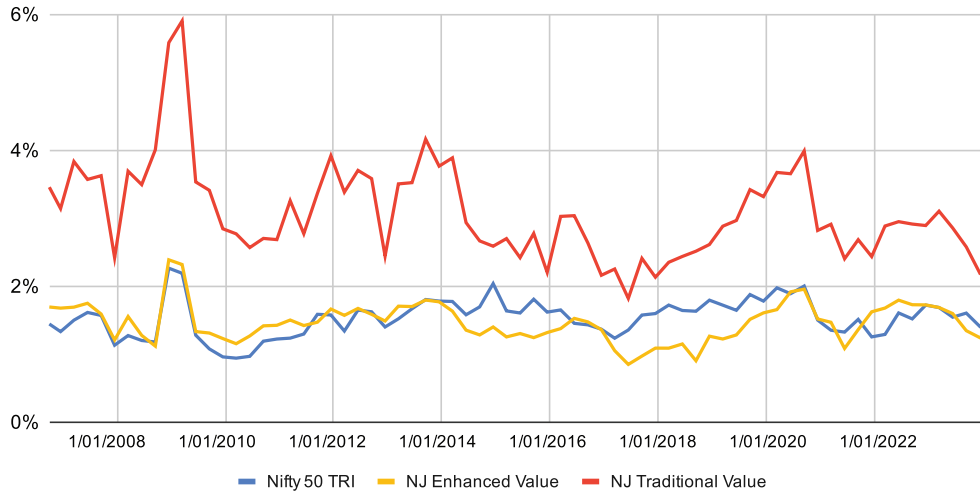
Historical Trends in NJ's Traditional Value Model
NJ Value vs Nifty 50 TRI: Price to Earnings
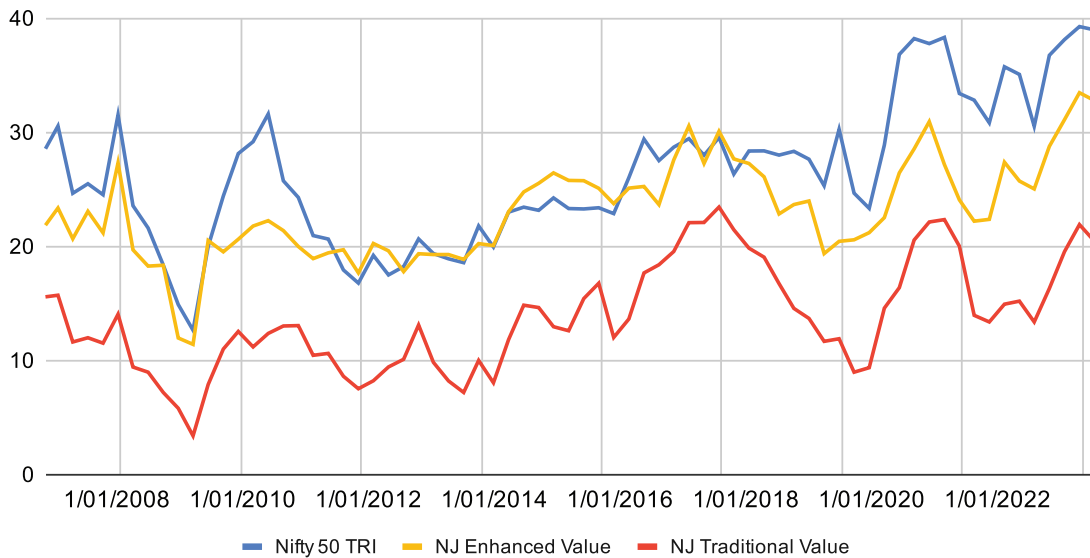
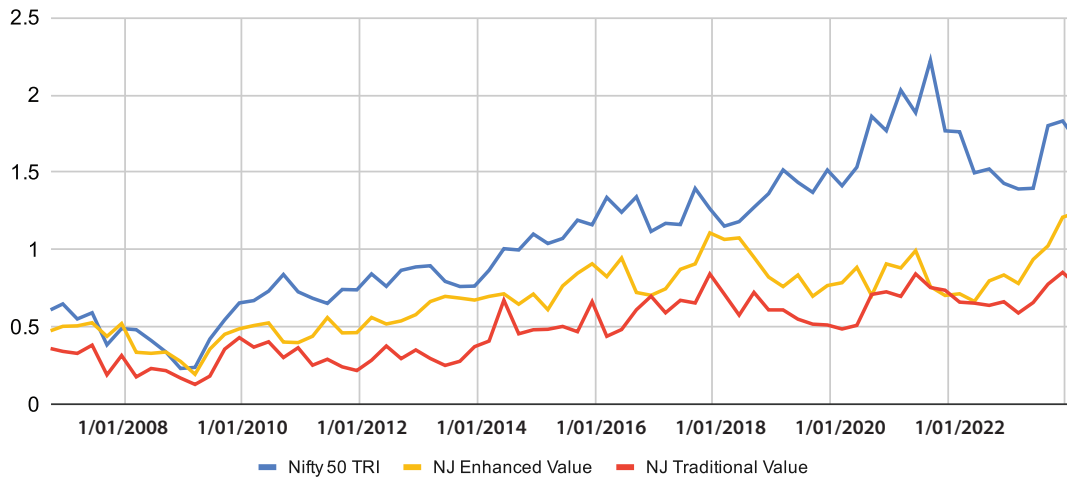Source: CMIE, NJ Smart Beta   Data from 30th Sept,2006 to 15th Mar, 2024

NJ Value vs Nifty 50 TRI: Dividend Yield

Legend: Nifty 50 TRI — NJ Enhanced Value — NJ Traditional Value

Source: CMIE, NJ Smart Beta   Data from 30th Sept,2006 to 15th Mar, 2024

NJ Value vs Nifty 50 TRI: PE to Growth

Legend: Nifty 50 TRI — NJ Enhanced Value — NJ Traditional Value

Source: CMIE, NJ Smart Beta   Data from 30th Sept,2006 to 15th Mar, 2024
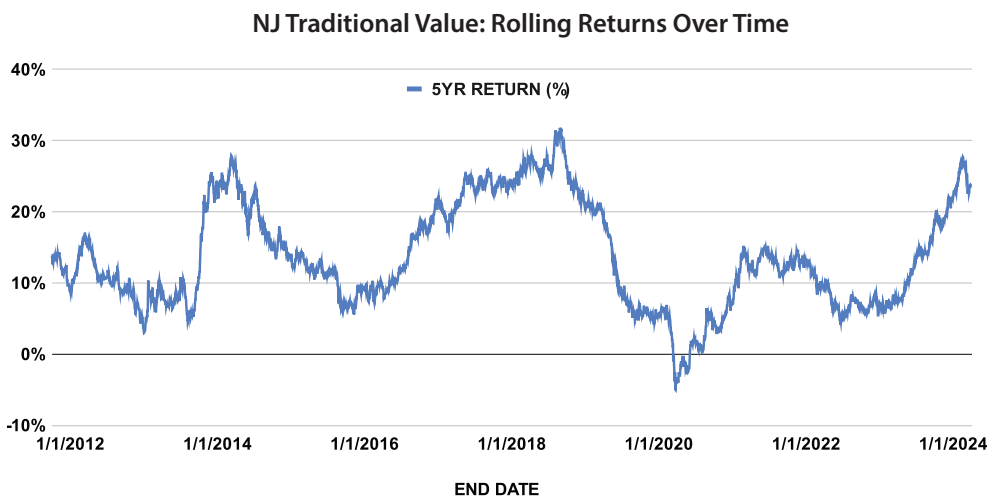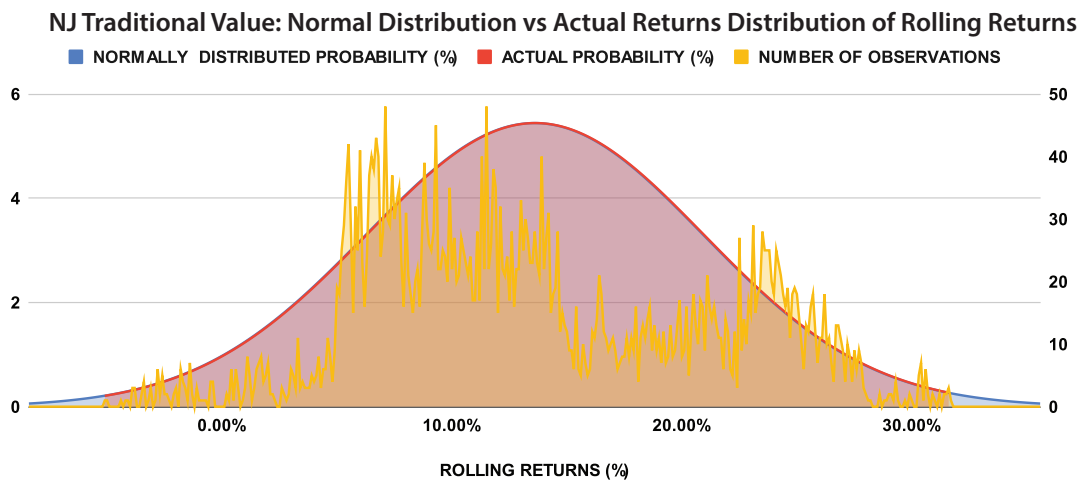
NJ Value and Nifty 50 TRI Parameter Averages

Parameter	NJ Traditional Value	NJ Enhanced Value	Nifty 50 TRI
PE to Growth	0.77	1.24	1.70
Dividend Yield	2.32%	1.35%	1.53%
Price to Earnings	20.47	32.80	38.99

As on 15th Mar, 2024. Numbers represent simple averages of all constituents.Loss Making companies and Outliers have not been considered while calculating average. Chart has been plotted based on quarterly data.

Overall, Both the NJ Traditional Value Model and the NJ Enhanced Value Model have better value metrics compared to Nifty 50 Index. NJ Traditional Value has a lower PE to Growth compared to the Nifty 50 by 0.93, while NJ Enhanced Value is lower by 0.46. Similarly, both NJ Traditional Value and NJ Enhanced Value have a lower Price to Earnings ratio when compared to Nifty 50 Index and NJ Traditional Value Model has a higher dividend yield compared to Nifty 50 Index.

NJ Traditional Value

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

■ NORMALLY DISTRIBUTED PROBABILITY (%)   ■ ACTUAL PROBABILITY (%)   ■ NUMBER OF OBSERVATIONS

ROLLING RETURNS (%)

NJ Traditional Value: Rolling Returns Over Time

— 5YR RETURN (%)

END DATE

5Yr Return Distribution Summary

NJ Traditional Value	
Mean Return	13.66%
Median Return	12.23%
Std Dev Of Returns	7.33%
Max Return	31.75%
Min Return	-5.07%
Negative Observation (%)	1.82%
% Of Observations Between 0% & 10%	35.58%
% Of Observations Between 10% & 15%	26.43%
% Of Observations Between 15% & 20%	11.32%
% Of Observations Between 20% & 30%	24.09%
% Of Observations >= 30% Return	0.77%
Total Observations	4,567

Data from 30th Sep, 2006 to 31st Mar, 2024

NJ Enhanced Value

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

- NORMALLY DISTRIBUTED PROBABILITY (%)
- ACTUAL PROBABILITY (%)
- NUMBER OF OBSERVATIONS
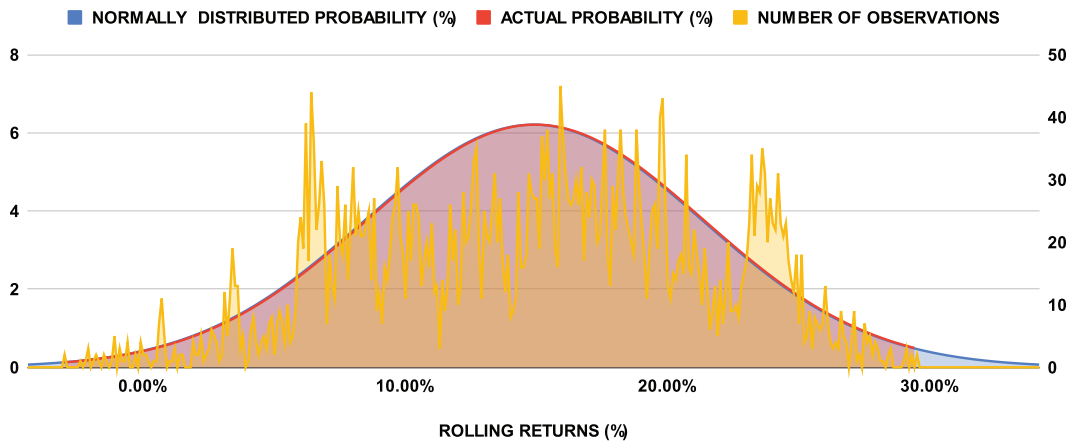
ROLLING RETURNS (%)

NJ Enhanced Value: Rolling Returns Over Time

— 5YR RETURN (%)

END DATE

5Yr Return Distribution Summary

NJ Enhanced Value	
Mean Return	14.95%
Median Return	15.41%
Std Dev Of Returns	6.43%
Max Return	29.55%
Min Return	-2.99%
Negative Observation (%)	0.77%
% Of Observations Between 0% & 10%	25.33%
% Of Observations Between 10% & 15%	21.22%
% Of Observations Between 15% & 20%	29.41%
% Of Observations Between 20% & 30%	23.28%
% Of Observations >= 30% Return	0.00%
Total Observations	4,567

Data from 30th Sep, 2006 to 31st Mar, 2024

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

■ NORMALLY DISTRIBUTED PROBABILITY (%) ■ ACTUAL PROBABILITY (%) ■ NUMBER OF OBSERVATIONS
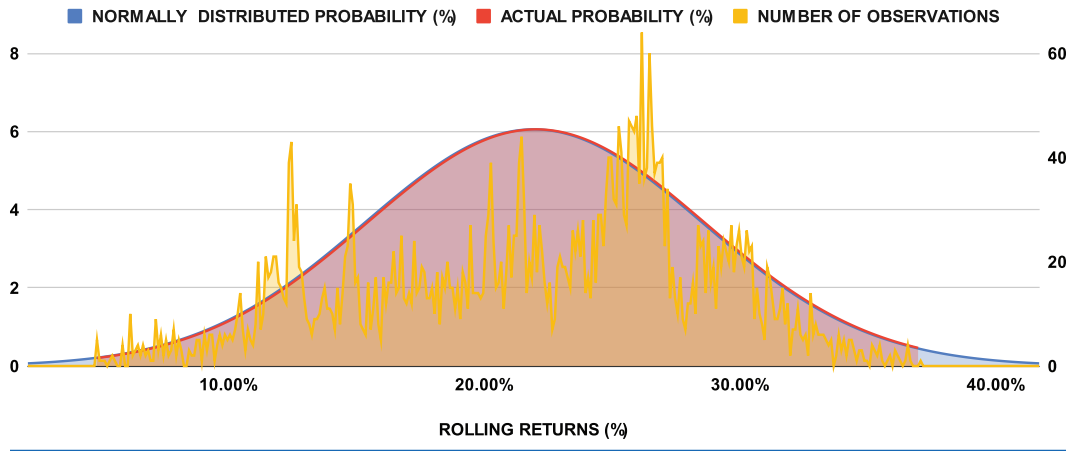
ROLLING RETURNS (%)

NJ Momentum+: Rolling Returns Over Time

— 5YR RETURN (%)

END DATE
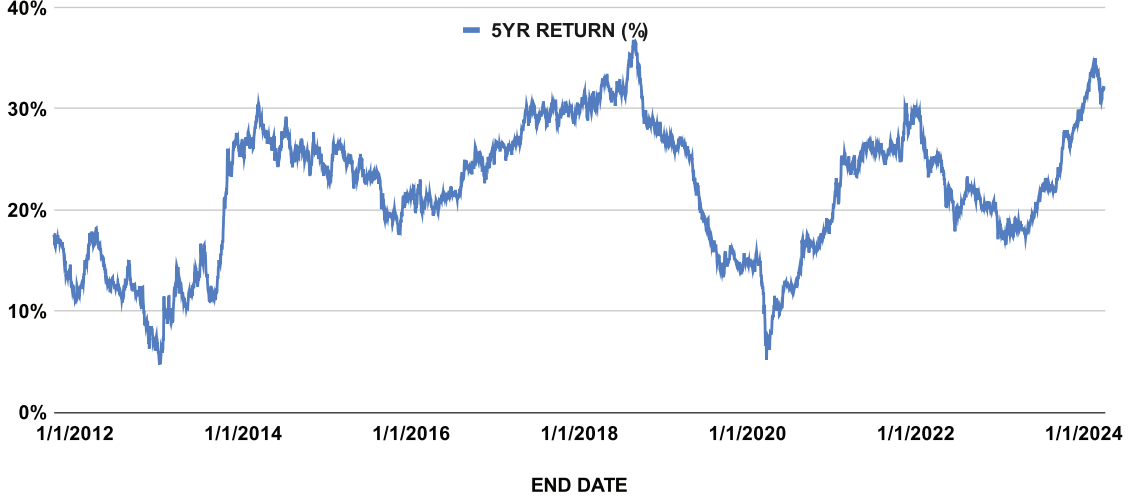
5Yr Return Distribution Summary

NJ Momentum+	
Mean Return	21.98%
Median Return	23.14%
Std Dev Of Returns	6.59%
Max Return	37.05%
Min Return	4.82%
Negative Observation (%)	0.00%
% Of Observations Between 0% & 10%	3.48%
% Of Observations Between 10% & 15%	16.05%
% Of Observations Between 15% & 20%	15.68%
% Of Observations Between 20% & 30%	54.94%
% Of Observations >= 30% Return	9.85%
Total Observations	4,567

Data from 30th Sep, 2006 to 31st Mar, 2024

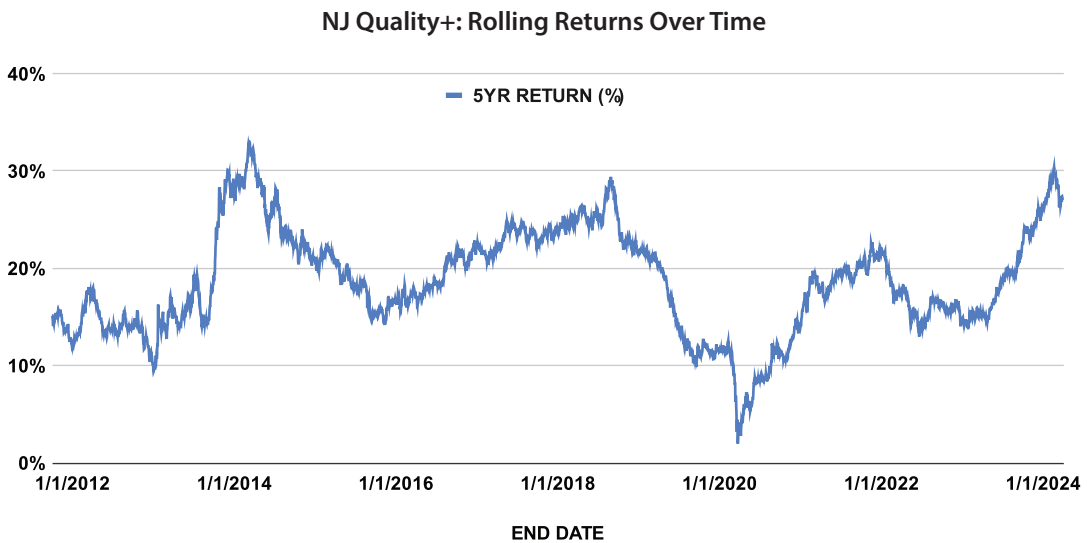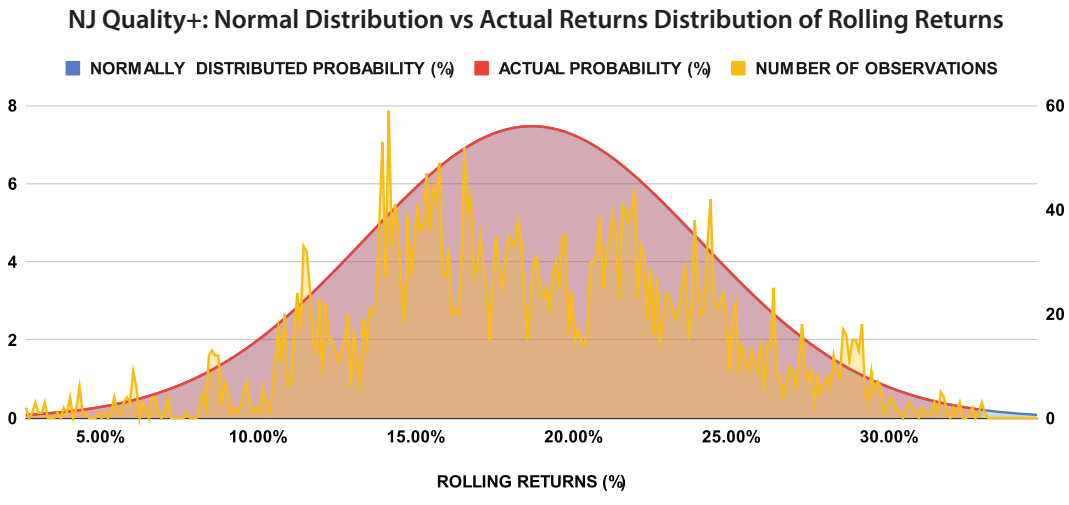## NJ Low Volatility+: Normal Distribution vs Actual Returns Distribution of Rolling Returns

Legend: NORMALLY DISTRIBUTED PROBABILITY (%) · ACTUAL PROBABILITY (%) · NUMBER OF OBSERVATIONS
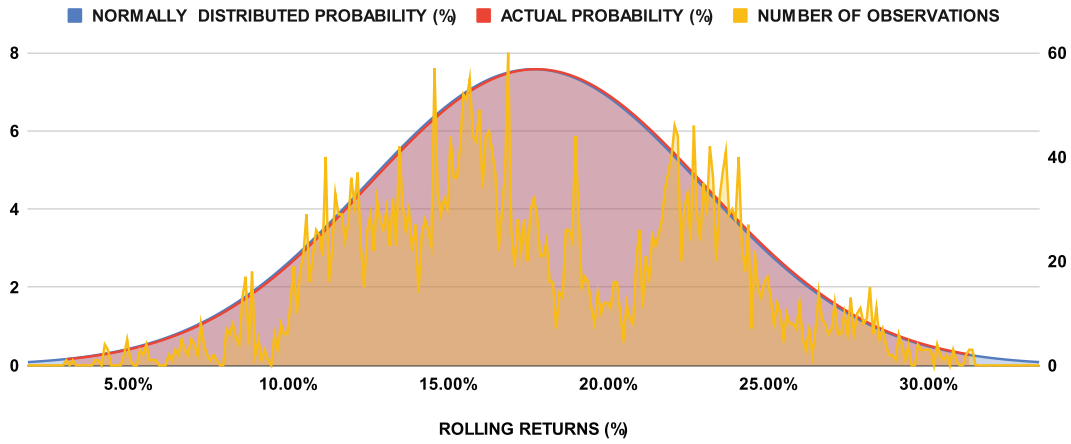
NJ Low Volatility+: Rolling Returns Over Time

Legend: 5YR RETURN (%)

5Yr Return Distribution Summary

NJ Low Volatility+	
Mean Return	17.70%
Median Return	16.83%
Std Dev Of Returns	5.26%
Max Return	31.40%
Min Return	3.02%
Negative Observation (%)	0.00%
% Of Observations Between 0% & 10%	4.34%
% Of Observations Between 10% & 15%	29.06%
% Of Observations Between 15% & 20%	31.36%
% Of Observations Between 20% & 30%	34.73%
% Of Observations >= 30% Return	0.53%
Total Observations	4,567

Data from 30th Sep, 2006 to 31st Mar, 2024

NJ ASSET MANAGEMENT
BUILT ON RULES

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

NJ Quality+: Rolling Returns Over Time

5Yr Return Distribution Summary

NJ Quality+	
Mean Return	18.71%
Median Return	18.36%
Std Dev Of Returns	5.34%
Max Return	33.00%
Min Return	1.98%
Negative Observation (%)	0.00%
% Of Observations Between 0% & 10%	3.94%
% Of Observations Between 10% & 15%	21.55%
% Of Observations Between 15% & 20%	33.63%
% Of Observations Between 20% & 30%	39.76%
% Of Observations >= 30% Return	1.12%
Total Observations	4,567

Data from 30th Sep, 2006 to 31st Mar, 2024

Nifty 50 TRI : Normal Distribution vs Actual Returns Distribution of Rolling Returns

NORMALLY DISTRIBUTED PROBABILITY (%) ■ ACTUAL PROBABILITY (%) ■ NUMBER OF OBSERVATIONS
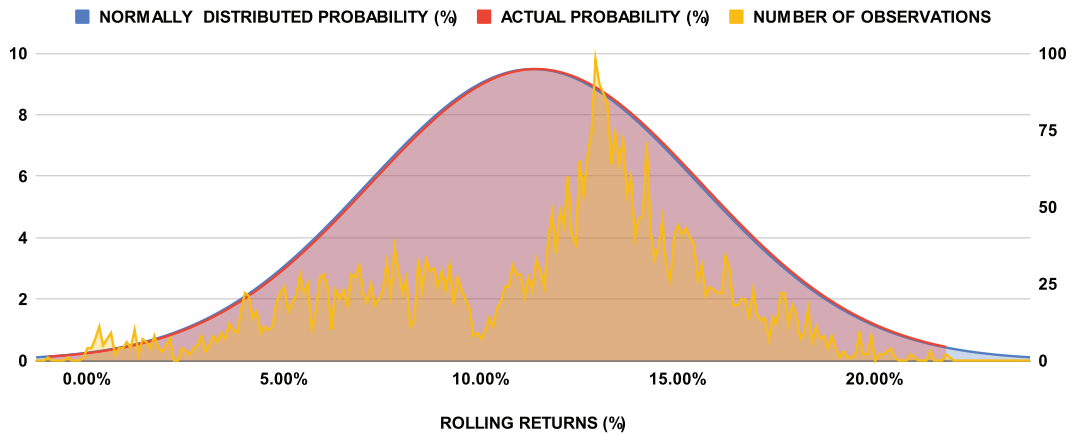
ROLLING RETURNS (%)

Nifty 50 TRI : Rolling Returns Over Time

5YR RETURN (%)

END DATE

5Yr Return Distribution Summary

Nifty 50 TRI	
Mean Return	11.37%
Median Return	12.49%
Std Dev Of Returns	4.21%
Max Return	21.85%
Min Return	-1.03%
Negative Observation (%)	0.15%
% Of Observations Between 0% & 10%	33.44%
% Of Observations Between 10% & 15%	48.37%
% Of Observations Between 15% & 20%	17.58%
% Of Observations Between 20% & 30%	0.46%
% Of Observations >= 30% Return	0.00%
Total Observations	4,567

Data from 30th Sep, 2006 to 31st Mar, 2024

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	0.63	0.85	0.67	0.51
NJ Momentum+	0.63	1	0.74	0.69	0.64
NJ Quality+	0.85	0.74	1	0.80	0.70
NJ Enhanced Value	0.67	0.69	0.80	1	0.79
NJ Traditional Value	0.51	0.64	0.70	0.79	1

Source: CMIE, NJ Smart Beta. Data from 31st Dec, 2013 to 31st Mar, 2024

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

NJ Low Volatility+ is very strongly correlated with NJ Quality+ (0.85). While the degree of correlation between the NJ Low Volatility+ is moderately strong with the NJ Momentum+ (0.63), it is fairly weak with the NJ Traditional Value (0.51) and moderate with NJ Enhanced Value (0.67) model.

The degree of correlation between NJ Momentum+ is moderately strong with all the other indexes i.e. NJ Quality+ (0.74), NJ Traditional Value (0.64) and NJ Enhanced Value (0.69).

NJ Quality+ has moderately strong correlation with NJ Traditional Value (0.70) and strong correlation with NJ Enhanced Value (0.80).

NJ Enhanced Value has strong correlation with NJ Traditional Value (0.79).

Research Spotlight
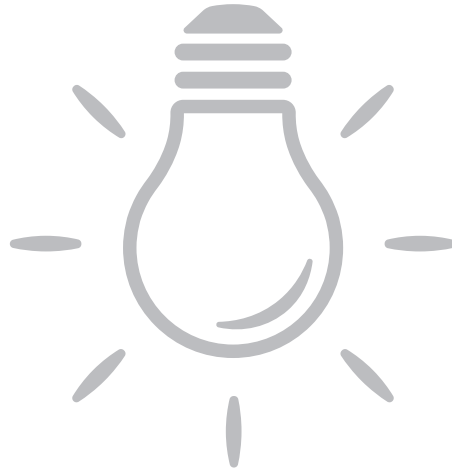
1. Discover NJ's Factor Book - **(https://www.njfactorbook.com)**

Uncover valuable insights and knowledge that will elevate your understanding. For quick access, scan the QR code provided and embark on a journey of discovery.

2. NJ Investment Calendar 2024 -
(https://www.njmutualfund.com/calendar.php)

Unveil the NJ's Investment Calendar for 2024, providing insightful perspectives on investment trends and opportunities. As you embark on the new year, our commitment is to empower you with a time-tested, prudent approach to long-term wealth creation, fostering prosperity in the journey that lies ahead. Ensure a swift and effortless experience by scanning the accompanying QR code.

3. International experience with Quality -
(https://research-center.amundi.com/files/nuxeo/dl/85975baf-6a77-49eb-a0a5-f7916cbffeca)

The research paper, authored by Lepetit, F., Cherief, A., Ly, Y., and Sekine, T. in 2021, delves into the intricate domain of quality investing. The authors aim to provide a fresh perspective on the dynamics of quality investing, shedding light on its relevance, challenges, and potential enhancements. This paper serves as a valuable resource for investors and financial analysts seeking a nuanced understanding of quality investing in the contemporary financial landscape.