

DSP Quant Fund

*Rule-based investing according to
'Good Investing Principles'*

NFO Period: May 20, 2019 to June 03, 2019



1. Buy good companies

2. Don't overpay

3. Do nothing

Why do we deviate from our principles ?

**Overconfidence in ability
to predict the future**

Recency bias

Loss aversion

Herd mentality

**Anchoring to past
winners**

Peer pressure

**Trying to do market
timing**

**Reacting to short term
noise**

What is the solution?

1. Buy good companies

2. Don't overpay

3. Do nothing

4. Mitigate human biases

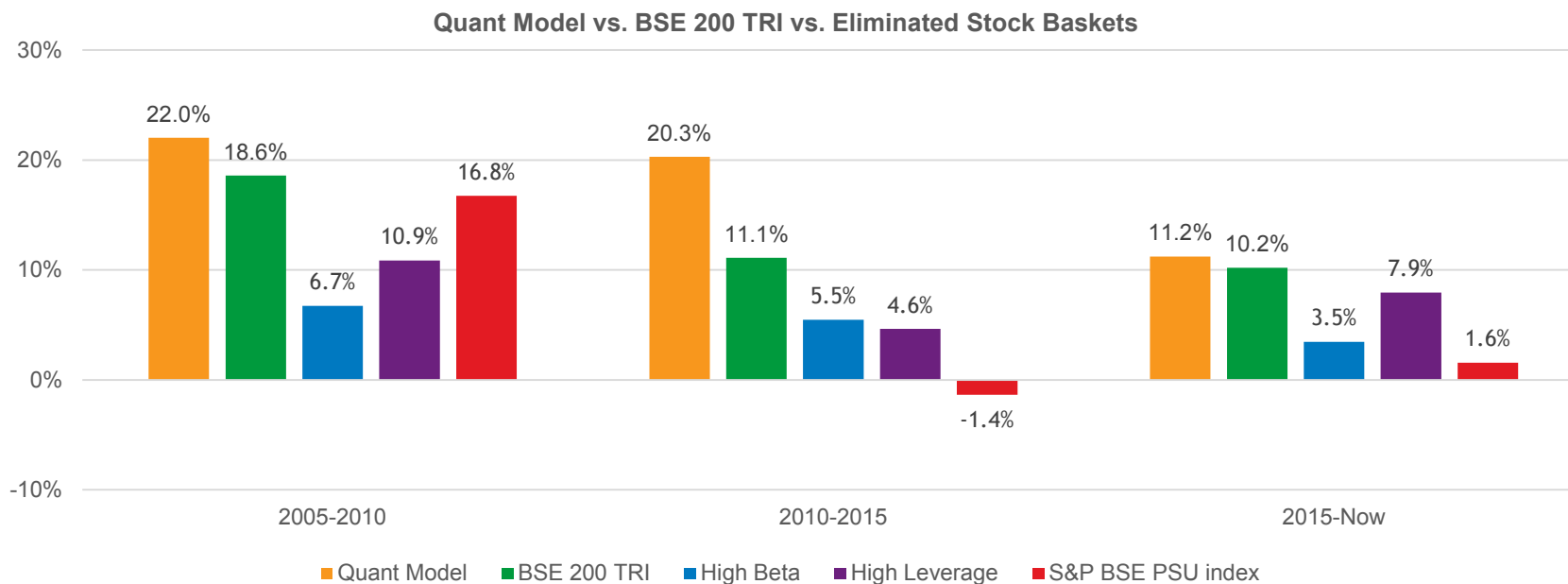
“Tell me where I’m going to die, that is, so I don’t go there”
– Charlie Munger

*From the universe of BSE 200 TRI index companies, our strategy is to eliminate companies displaying **any** of the below characteristics*

Criteria	Evaluation Metric	Stocks/Weight eliminated*	Rationale
Highly leveraged companies	Debt to Equity (excluding financials)	14 stocks, 4.9% in benchmark	<ul style="list-style-type: none"> Interest servicing becomes difficult in slow economic environment Equity holders have subordinated claim to debt holders Higher risk of default
Highly volatile stocks	Beta , High stock volatility	70 stocks, 20.6% in benchmark	<ul style="list-style-type: none"> Very high beta companies are typically very cyclical and have not added value over longer term Companies with disproportionately high volatility relative to the market and on absolute basis, indicates potential red-flags
Misalignment of management incentives	Ownership criteria	33 stocks, 9.7% in benchmark	<ul style="list-style-type: none"> Shareholder wealth maximization is not a primary goal of the promoter/management Business decisions sometimes are also driven to benefit public at large which may be unprofitable to shareholders
Earnings Quality & Accounting Screens	Earnings quality and forensic accounting screeners	40 stocks, 10.2% in benchmark	<ul style="list-style-type: none"> Manipulation of earnings and malpractices by promoters destroy shareholder value Forensic accounting ratios based on reported financials and other metrics throw up red-flags A second level screener for off balance sheet items becomes very critical

* No of stocks excluded = 99 , Weight of excluded stocks in benchmark = 26.3%, numbers mentioned are for the current rebalance of March 2019

The Quant model weeds out stocks in an systematic manner



Quant Model returns are using simulated back-test results after factoring in estimated fees and impact costs

	Quant Model	BSE 200 TRI	S&P BSE PSU Index	BSE 200 High Beta	BSE 200 High Leverage
CAGR	17.9%	13.1%	5.0%	5.2%	7.6%
Std. Deviation	18.7%	22.5%	24.2%	33.6%	28.8%
Return/Risk	0.96	0.58	0.21	0.16	0.26

Note: The performance numbers are Total return series from 30-Sep-2005 to 31-Mar-2019. Eliminated stock portfolios created using BSE 200 constituents that meet the elimination criteria described in the previous slide at every rebalance. Weighting is proportional to their weights in BSE 200 index. The portfolios are rebalanced every March and September. Data Source: FactSet, MFIE. **Past performance may or may not sustain in future and should not be used as a basis for comparison with other investments.** These figures pertain to performance of the index and do not in any manner indicate the returns/performance of the Scheme. It is not possible to invest directly in an index

Framework to identify companies with poor earnings quality and weak balance sheet metrics

Criteria	Rationale	Evaluation Metrics
Earnings quality	<ul style="list-style-type: none"> Quality earnings are sustainable and repeatable, backed by cash flows Red flags - high divergence between accounting and cash flow entries Many firms “manage” earnings through aggressive accounting and valuation policies 	<ul style="list-style-type: none"> EBITDA/ Cash Flow from Operations Interest in Cash Flow Statement/ Interest in P&L Statement Tax in Cash Flow Statement/ Tax in P&L Statement Depreciation rate
Balance sheet health	<ul style="list-style-type: none"> Companies with badly managed balance sheets are at higher risk for financial distress 	<ul style="list-style-type: none"> Interest coverage ratio Debt/market capitalization Credit rating Altman Z score
Working capital cycle	<ul style="list-style-type: none"> Indicates efficacy of cash flow conversion and liquidity risk management Early warning sign of problems in the business 	<ul style="list-style-type: none"> Variability in debtor days, inventory days and creditor days
For Financials: asset quality, ALM etc.	<ul style="list-style-type: none"> Problems in financial companies typically arise due to aggressive growth, which creates asset quality problems OR Over-reliance on short term funding resulting in solvency risk 	<ul style="list-style-type: none"> GNPA and NNPA growth Growth in advances Short term debt to total debt Total assets /Networth Provisioning cover
Management actions	<ul style="list-style-type: none"> Imprudent management actions can destroy value for minority shareholders 	<ul style="list-style-type: none"> High promoter pledge High related party transactions Dividend funding

* Source: Capitaline

* DSP has created a proprietary scoring model using all the above parameters. Companies that rank below a pre-determined threshold as per the scoring model are eliminated from the eligible universe

Selection Criteria (Buy Good Companies & Don't Overpay)

Attributes of 'Good Companies' - Factor Based Investing Approach

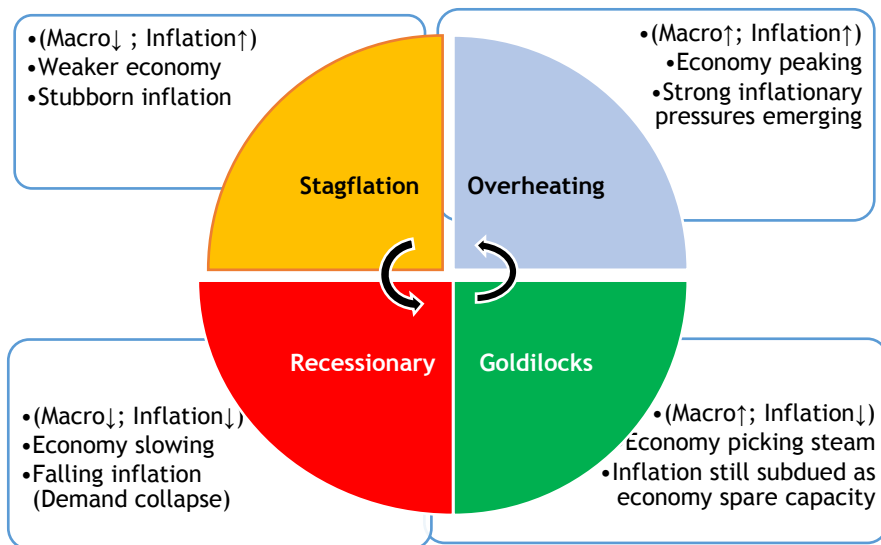
Factor Investing attempts to identify and capture durable sources of alpha. We have chosen factors which -

- Are fundamentally sound
- Tested for consistency and alpha over long periods, across market cycles and different geographies
- Are quantifiable
- Have relatively low correlation with each other, maximizing diversification benefits for the portfolio

Characteristic	Factor	Metric	Rationale
Good Company	Quality	<ul style="list-style-type: none">• ROE• Earnings Growth Consistency	Aims to capitalize on the premium associated with well-run companies which are profitable and have steady earning streams
Good Company	Growth	<ul style="list-style-type: none">• Estimated earnings growth (consensus)	Aims to capitalize on premium associated with companies that have strong growth prospects
Right Price	Value	<ul style="list-style-type: none">• Dividend Yield• Free Cash Flow Yield	Aims to capture excess returns from stocks that are relatively inexpensive compared to the market



Constraint	Implementation
Stock level constraints	<ul style="list-style-type: none"> 10%, or 10X of weight in BSE 200 TRI, whichever is lower (avoid concentration, ensure liquidity/capacity)
Sector level constraints	<ul style="list-style-type: none"> Sector neutral, Max sector active weight 10% (diversification, avoids risk of sector rotation and back-tested for alpha)
Portfolio factor exposure	<ul style="list-style-type: none"> Maximize portfolio level factor exposure (average percentile rank across all five factors)
Rebalancing frequency	<ul style="list-style-type: none"> Semi annual rebalancing to minimize turnover



	Goldilocks	Overheating	Stagflation	Recessionary
Growth	31.7%	39.4%	-3.4%	-2.1%
Quality	24.5%	35.6%	3.5%	0.2%
Value	21.6%	44.7%	-3.7%	-2.2%
Quant Model	30.4%	39.2%	3.7%	-0.2%
BSE 200 TRI	24.7%	39.2%	-3.4%	-5.8%

When can the Quant Model underperform?

Sentiment driven rallies / Market Euphoria (Not backed by fundamentals)
Example: 2007 Commodity Super-cycle peak and 2014 Change in Govt. regime

Market reactions based on actual or expected changes in policy/regulation or events.
Example: PSU Bank recap of Oct 2017

The fund may not be able to fully capture 'hope trades' or 'turnaround stories' where actual historical numbers are poor but market is pricing in a sharp future improvement.

Factor descriptors used for the above table:

Growth descriptors: 3 year forecast EPS growth

Quality descriptors: Return on equity and Earnings growth variability

Value descriptors: P/B, P/E and Dividend Yield

Note: The performance numbers are total return series from 30-Sep-2005 to 31-Mar-2019. Factor portfolios are created using factor tilting approach representing portfolios having stocks displaying high values on the respective factor descriptor. The factor portfolios are rebalanced quarterly. Data Source: FactSet, MFIE. **Past performance may or may not sustain in future and should not be used as a basis for comparison with other investments.** These figures pertain to performance of the index and do not in any manner indicate the returns/performance of the Scheme. It is not possible to invest directly in an index

Peer Relative Performance (Large Cap Category)

	Quant Model	S&P BSE 200 TRI	Nifty 50 TRI	Nifty Next 50 TRI	Large Cap Category - Median	Large Cap Category - Bottom of 1st Quartile	Quartile Rank of Quant Fund
2006	40.7%	40.2%	41.9%	30.0%	42.6%	45.5%	3
2007	42.6%	62.3%	56.8%	77.4%	61.8%	64.3%	4
2008	-46.2%	-55.9%	-51.3%	-63.1%	-50.0%	-48.3%	1
2009	94.7%	90.9%	77.6%	130.5%	77.2%	87.0%	1
2010	36.8%	17.8%	19.2%	18.9%	18.0%	19.1%	1
2011	-15.7%	-26.0%	-23.8%	-31.1%	-22.6%	-19.1%	1
2012	36.8%	33.2%	29.4%	49.8%	28.3%	30.3%	1
2013	14.9%	6.1%	8.1%	6.0%	6.6%	8.5%	1
2014	39.0%	37.4%	32.9%	46.4%	40.7%	44.7%	3
2015	9.6%	-0.2%	-3.0%	8.1%	0.9%	3.2%	1
2016	3.2%	5.4%	4.4%	8.4%	2.9%	4.9%	2
2017	32.6%	35.0%	30.3%	47.7%	29.9%	33.2%	2
2018	3.4%	0.8%	4.6%	-7.9%	-2.7%	-0.3%	1
YTD 2019	1.4%	5.7%	7.3%	0.6%	5.5%	6.3%	4
CAGR (Sep 2005-Mar 2019)	17.9%	13.1%	13.1%	14.6%	13.3%	16.4%	% Years in Q1 : 57%

Note: Data Source: FactSet, MFIE. **Past performance may or may not sustain in future and should not be used as a basis for comparison with other investments.** These figures pertain to performance of the index and do not in any manner indicate the returns/performance of the Scheme. It is not possible to invest directly in an index

Misconceptions and pitfalls	Why does this happen?	How we try to avoid this?
The model works only in the back-test	<ul style="list-style-type: none"> • Over-fitting the model to recent data (over-estimates alpha as history does not exactly repeat) • Typically, recent winners are also expensive and markets have tendency to mean revert • Underestimating transaction cost and impact cost 	<ul style="list-style-type: none"> • Testing over long periods, in-sample and out-of-sample checks for persistence of signals across time horizons • Diversifying sources of alpha to avoid cyclical of returns • Back-tests after factoring in realistic impact costs and fees • Avoiding short term momentum signals to stay away from crowding/herding behavior
Quant investing is a data mining exercise	<ul style="list-style-type: none"> • Spurious correlations • Choosing factors devoid of fundamental economic basis 	<ul style="list-style-type: none"> • Rigorous research on factors that are proven globally and across geographies and time horizons • Avoiding any input which does not have a fundamental rationale
Quant investing is high frequency/algorithmic trading	<ul style="list-style-type: none"> • There are some quant strategies which follow this style 	<ul style="list-style-type: none"> • The DSP Quant Fund does not follow this style. This is designed to become a core equity allocation fund • The portfolio is rebalanced only on a semi-annual basis to avoid excessive transaction cost and turnover

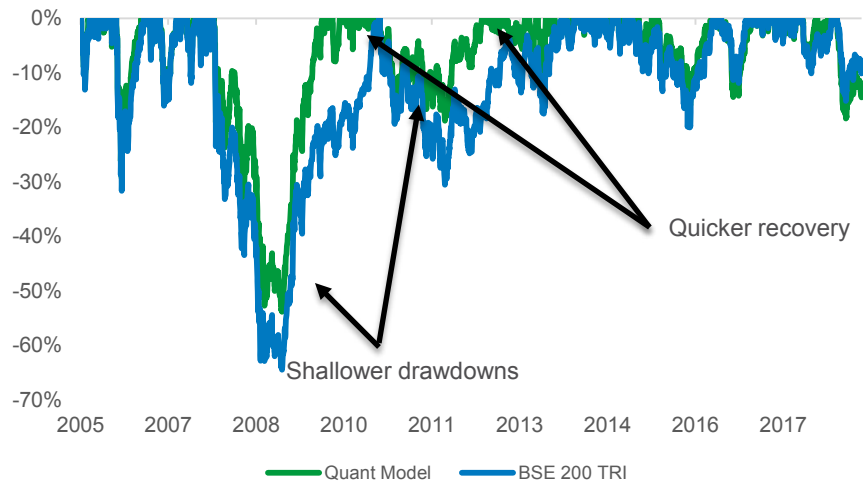
Portfolio Attributes

Top 10 Positions and Sector Weights

Sector	Quant Model Weight	BSE 200	Top Weights
Financials	31.5%	35.7%	HDFC Bank, IndusInd Bank, Bajaj Finance
Consumer Discretionary	13.5%	8.5%	Maruti Suzuki, Bajaj Auto, Hero Motocorp
Information Technology	16.2%	11.2%	TCS, Infosys, Wipro
Consumer Staples	15.0%	10.0%	ITC, Hindustan Unilever, Nestle
Materials	13.1%	8.1%	Asian Paints, Hindustan Zinc, Pidilite Industries
Energy	0%	10.5%	None
Utilities	0%	3.1%	None
Industrials	5.1%	6.0%	Voltas, Cummins India, Amara Raja Batteries
Communication Services	2.0%	0.8%	Sun TV network
Health Care	4.8%	4.6%	Dvi's Laboratories, Natco Pharma, Abbott India

Based on rebalance dated 31 March 2019. The sector(s)/stock(s)/issuer(s) mentioned in this presentation do not constitute any research report/recommendation of the same and the Fund may or may not have any future position in these sector(s)/stock(s)/issuer(s).

% Drawdowns



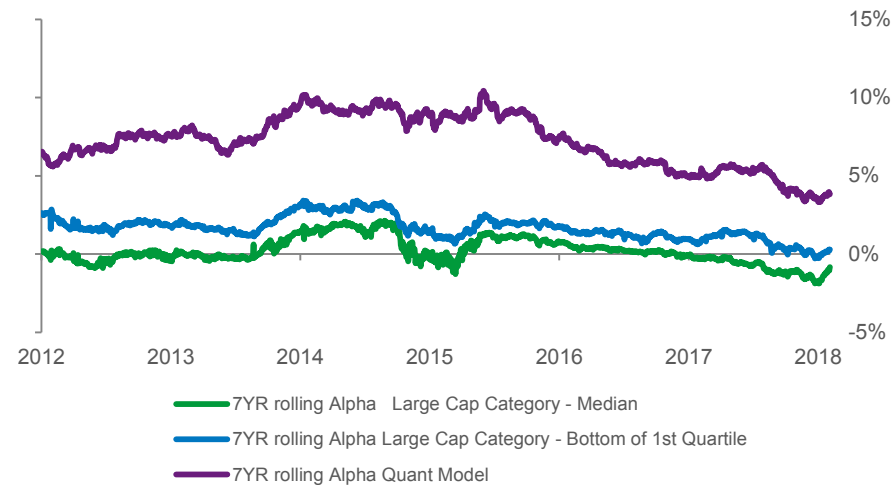
3 yr. Rolling Alpha

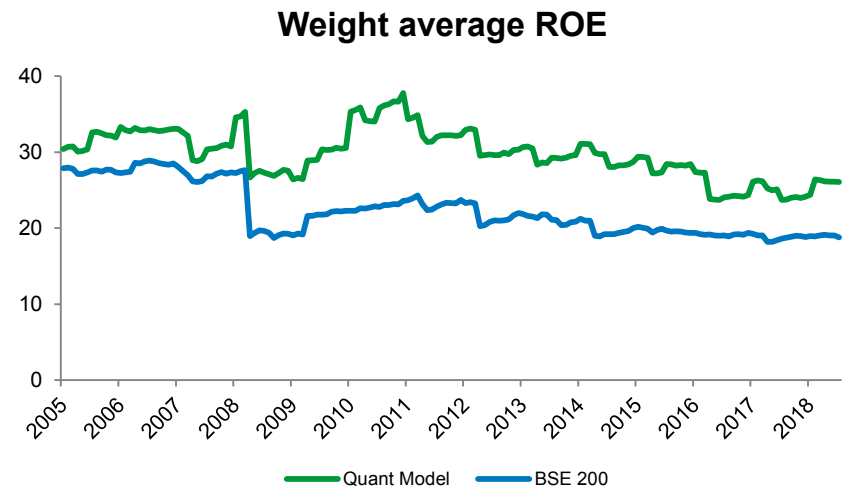
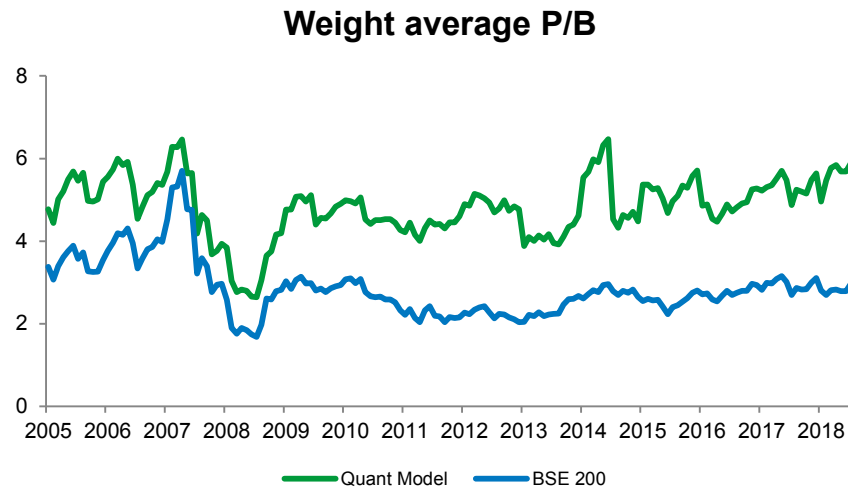
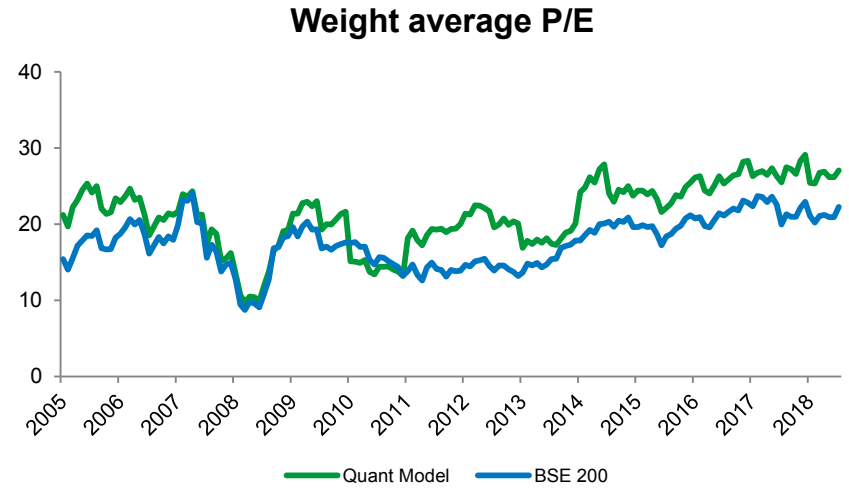
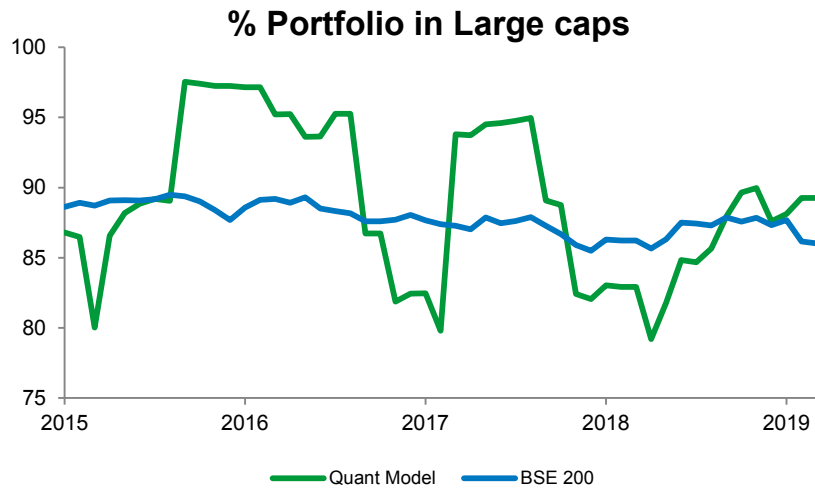


5 yr. Rolling Alpha



7 yr. Rolling Alpha





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1. Investors who want a well diversified large cap oriented CORE portfolio
2. Investors who want a efficient strategy that is designed to beat the benchmark using rational principles combined with scientific risk management
3. Investors looking at a minimum **7 year investment horizon**
4. Investors who do not want momentum chasing investment style with high turnover

Investment Objective	<p>The investment objective of the Scheme is to deliver superior returns as compared to the underlying benchmark over the medium to long term through investing in equity and equity related securities. The portfolio of stocks will be selected, weighed and rebalanced using stock screeners, factor based scoring and an optimization formula which aims to enhance portfolio exposures to factors representing 'good investing principles' such as growth, value and quality within risk constraints.</p> <p>There is no assurance that the investment objective of the Scheme will be realized.</p>
Benchmark	S&P BSE 200 TRI Index
Fund Manager	Anil Ghelani
Asset Allocation	<p>Equity and equity related instruments including derivatives: 95% to 100%;</p> <p>Debt and money market instruments: 0% to 5%;</p> <p>Units issued by REITs & InvITs: 0% to 5%</p>
Exit Load	Nil
Minimum Application Amount (First purchase & subsequent purchase)	<p>For both during NFO and after the scheme reopens for ongoing purchase</p> <p>Applicable to both Regular & Direct Plan: For first investment – Rs. 500 and any amount thereafter.</p>



Prateek joined DSP Investment Managers in 2017 in the Risk & Quantitative Analysis (RQA) Division. Prateek has over 7 years of experience in quantitative finance, thematic research and risk management.

Prior to joining DSP, he worked for State Street Global Advisors in the Global Equity Beta Solutions Group. Prior to that, he was with Credit Suisse in the Private Banking Global Research division. Prateek is MS (Quantitative Finance) from Olin Business School, Washington University in St. Louis.

DSPIM

2017

- ▶ Joined DSP Investment Managers Pvt Ltd. to primarily focus on applications of quantitative and statistical techniques in investment management

State Street Global Advisors

2017

- ▶ Senior Associate, Headed the Global Equity Beta Solutions India research team

Credit Suisse

2012 - 2017

- ▶ AVP, Thematic Research for Private Banking Division
- ▶ Cross-asset class research on themes, including quantitative analysis, portfolio strategy and construction
- ▶ Publications and White Papers include themes such as Smart Beta, ESG and Corporate Governance, Success of Small Countries

Education

- ▶ MS (Quantitative Finance) Olin Business School, Washington University in St. Louis
- ▶ FRM Certification (Global Association of Risk Professionals, USA), 2012
- ▶ CFA Level 3 Cleared (Global Association of Investment Professionals), 2015
- ▶ B.E. (Information Technology) DAVV Indore 2008

Investment Risk Oversight / Quantitative Research & Factor Analytics /Portfolio Construction/ Enterprise Risk



Aparna Karnik (16)

Senior Vice President
Head – RQA

- ▶ **Areas of specialization: Investment Risk, Credit Risk, Operations Risk**
- ▶ Previously with CRISIL Ratings (Structured Finance Division, Large Corporates Group)
- ▶ Masters in Management Studies, Jamnalal Bajaj Institute of Management Studies



Prateek Nigudkar (7)

Sr. Manager, RQA

- ▶ **Areas of specialization: Quantitative Finance, Thematic Research**
- ▶ Previously with State Street Global Advisors (Global Equity Beta Solutions Group). Prior to that, with Credit Suisse (Private Banking Global Research Division)
- ▶ MS (Quantitative Finance) Olin Business School, Washington University in St. Louis



Rahul Jain (11)

AVP, RQA

- ▶ **Areas of specialization: Risk Management, Quantitative Analysis, ETF strategies**
- ▶ Previously with Goldman Sachs in Bangalore as Lead Strategist, Risk. Prior to that, he was with Deutsche Bank Securities Inc. in the US as VP, Equity Trading.
- ▶ IIT Delhi (Master of Technology and Bachelor of Technology, Computer Science)



Manprit Bhurji (16)

AVP, RQA

- ▶ **Areas of specialization: Investment Risk, Performance Measurement**
- ▶ Previously with Tata AIG General Insurance, SBI Life Insurance in investment mid-office function
- ▶ B.Sc from Mumbai University



Himadri Gangwar (7)

Manager, RQA

- ▶ **Areas of specialization: Enterprise Risk**
- ▶ Previously Senior Consultant, at Deloitte & Touche AERS In India Pvt Ltd.
- ▶ MBA (IIM, Indore), Bachelor of Technology (Institute of Engineering & Technology, Lucknow)



Archit Doshi (1)

Management Trainee, RQA

- ▶ Masters in Management Studies, Jamnalal Bajaj Institute of Management Studies
- ▶ B.E. (Computer) from Pune Institute of Computer Technology



Anil has been working with DSP Group since 2003 and is currently Head of Passive Investments & Products. Previously, he served as the Business Head & Chief Investment Officer at DSP Pension Fund Managers and prior to that leading the Risk and Quantitative Analysis team at DSP Mutual Fund responsible for monitoring of portfolio risk and buy-side credit research on companies across various sectors.

Prior to joining DSP, he has worked IL&FS Asset Management Company and at S.R. Batliboi a member firm of EY. He is currently serving in volunteer capacity as a Director and Vice Chairman of the CFA Society India.

DSPIM

- 2018 - Present** ▶ Head of Passive Investments & Products
- 2013** ▶ Business Head and Chief Investment Officer of DSP Pension Fund Managers Pvt. Ltd.
- 2006 - 2012** ▶ Head of Risk & Quantitative Analysis (RQA) team
- 2003 - 2005** ▶ Joined DSP Investment Managers Pvt Ltd. as on Assistant Vice President in Fund Administration team

IL&FS Asset Management Co.

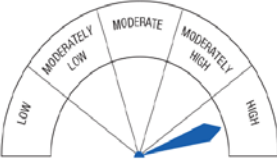
- 2003** ▶ Worked as a part of Fund Operations

S.R. Batliboi (member firm of Ernst & Young)

- 2000 - 2003** ▶ From February 2002 till February 2003 worked as an executive
- ▶ CA articleship till January 2002

Education

- ▶ Chartered Financial Analyst (CFA Institute USA)
- ▶ Chartered Accountant (ICAI India)
- ▶ Bachelors of Commerce, Mumbai University

Scheme	Product Suitability	Riskometer
<p>DSP Quant Fund (Open ended equity scheme investing based on a quant model theme)</p>	<p>The Open ended equity scheme is suitable for investors who are seeking*</p> <ul style="list-style-type: none"> ▶ Long-term capital growth ▶ Investment in active portfolio of stocks screened, selected, weighed and rebalanced on the basis of a predefined fundamental factor model 	 <p>Investors understand that their principal will be at high risk</p>

*Investors should consult their financial/tax advisors if in doubt about whether the product is suitable for them.

Past performance of the sponsor/AMC/mutual fund does not indicate the future performance of the Scheme. Investors in the Scheme are not being offered a guaranteed or assured rate of return. Each Scheme is required to have (i) minimum 20 investors and (ii) no single investor holding >25% of corpus. If the aforesaid point (i) is not fulfilled within the prescribed time, the Scheme concerned will be wound up and in case of breach of the aforesaid point (ii) the application to the extent of exposure in excess of the stipulated 25% limit would be liable to be rejected and the allotment would be effective only to the extent of 25% of the corpus collected. Consequently, such exposure over 25% limits will lead to refund within 5 Business days from the closure of the NFO period. **The name of the Scheme do not in any manner indicate the quality of the Schemes, its future prospects or returns.** All figures and other data given in this document are dated (unless otherwise specified) and the same may or may not be relevant in future and the same should not be considered as solicitation/recommendation/guarantee of future investments by DSP Investment Managers Pvt. Ltd. or its affiliates. The data or figures mentioned in this presentation shall not be construed as indicative yields/returns of any of the Schemes of DSP Mutual Fund ('Fund'). Past performance may or may not be sustained in the future. The sector(s)/stock(s)/issuer(s) mentioned in this presentation do not constitute any research report/recommendation of the same and the Fund may or may not have any future position in these sector(s)/stock(s)/issuer(s). The presentation indicates the strategy/investment approach currently followed by the Schemes and the same may change in future depending on market conditions and other factors. **Past performance may or may not be sustained in the future.** Investors are advised to consult their own legal, tax and financial advisors to determine possible tax, legal and other financial implication or consequence of subscribing to the units of the Fund. **For Schemes specific risk factors please refer the Scheme Information Document ('SID'). For further details, please refer the Statement of Additional Information, SID and Key Information Memorandum cum Application Forms of the respective Schemes, which are available at AMC and Registrar Offices and Investor Service Centres/AMC website viz. www.dspim.com.**

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DSP

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