



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	24,996	1.1%▲
Open Interest (OI)	1,83,75,225	1.1%▲
Change in OI (abs)	1,83,75,225	2,04,300▲
Premium / Discount (Abs)	50	41▲
<b>Inference</b>	<b>Long Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	56,112	0.9%▲
Open interest (OI)	22,95,470	2.0%▼
Change in OI (abs)	22,95,470	47,190▼
Premium / Discount (Abs)	168	80▲
<b>Inference</b>	<b>Short Covering</b>	

## Volatility Insights

	Value	Change
India VIX Index	14.84	0.24▼
Nifty ATM IV (%)	14.35	0.0▲
Bank Nifty ATM IV (%)	15.51	0.5▲
PCR (Nifty)	1.14	0.25▲
PCR (Bank Nifty)	0.80	0.07▲

The Long Ratio for FII Index Futures **jump** at 20.2 %, **up** from 19% in the **last session..**

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
<b>KAYNES</b>	3,11,600	11.2%	5609.5	2.2%
ONGC	14,21,44,950	9.7%	256.84	2.0%
MFSL	76,45,600	9.1%	1584.3	3.6%
BIOCON	3,27,77,500	7.3%	357.65	0.3%
LTF	7,31,32,180	7.2%	191.16	2.8%

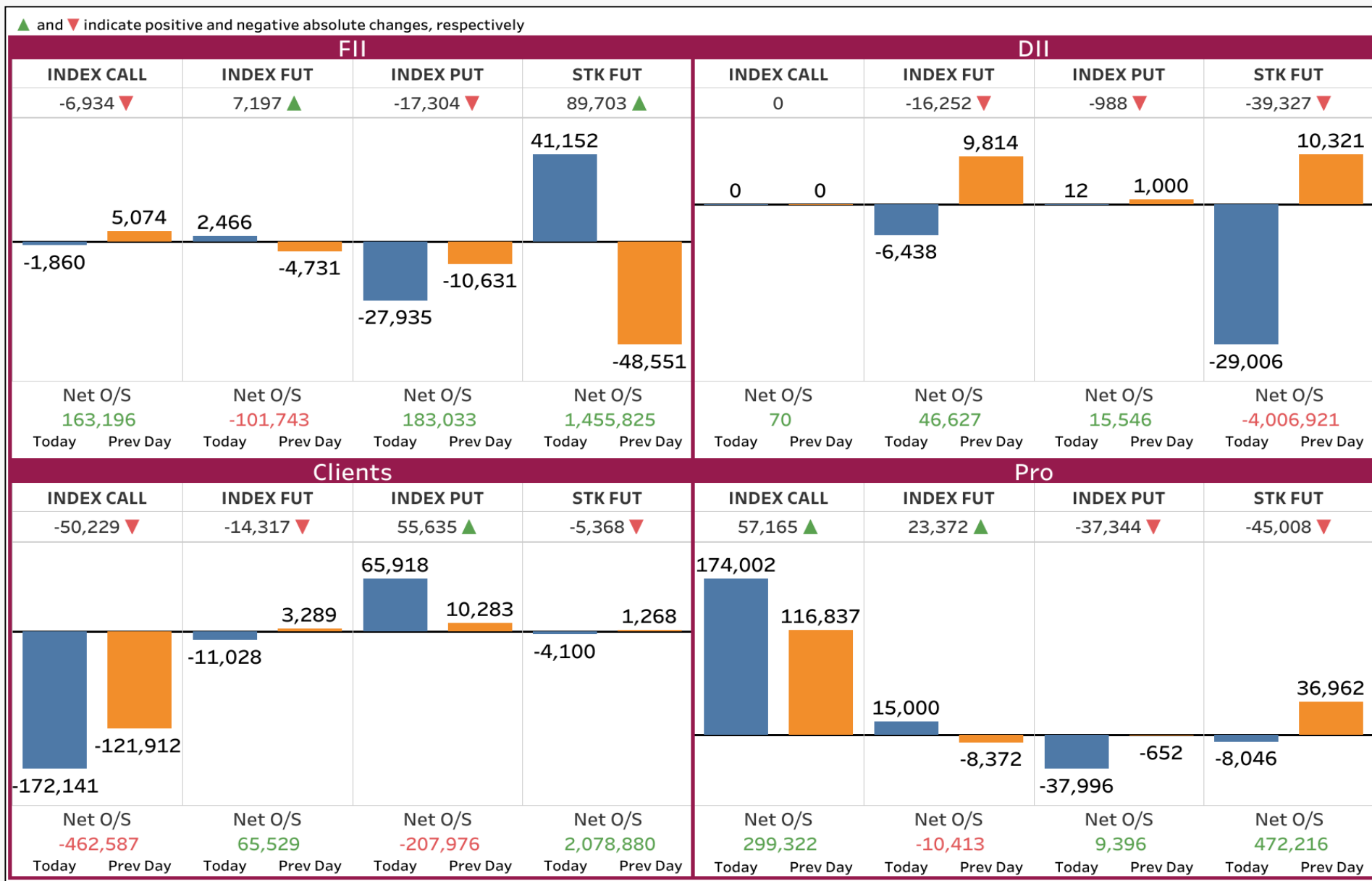
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
<b>MAZDOCK</b>	28,91,875	6.6%	3175.6	-1.0%
HINDZINC	1,49,57,250	3.5%	503.15	-0.5%
PPLPHARMA	81,92,500	3.0%	199.81	-0.5%
CUMMINSIND	40,70,850	2.9%	3316.8	-0.1%
BSE	1,27,33,500	2.7%	2706.2	-0.5%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
IGL	1,92,25,250	-4.8%	210.47	5.5%
ASIANPAINT	1,52,54,400	-4.4%	2249.2	1.6%
BSOFT	1,31,78,000	-3.7%	422.3	1.5%
IREDA	5,37,75,850	-3.1%	168.8	0.6%
PIIND	16,73,650	-2.8%	4158.6	4.4%

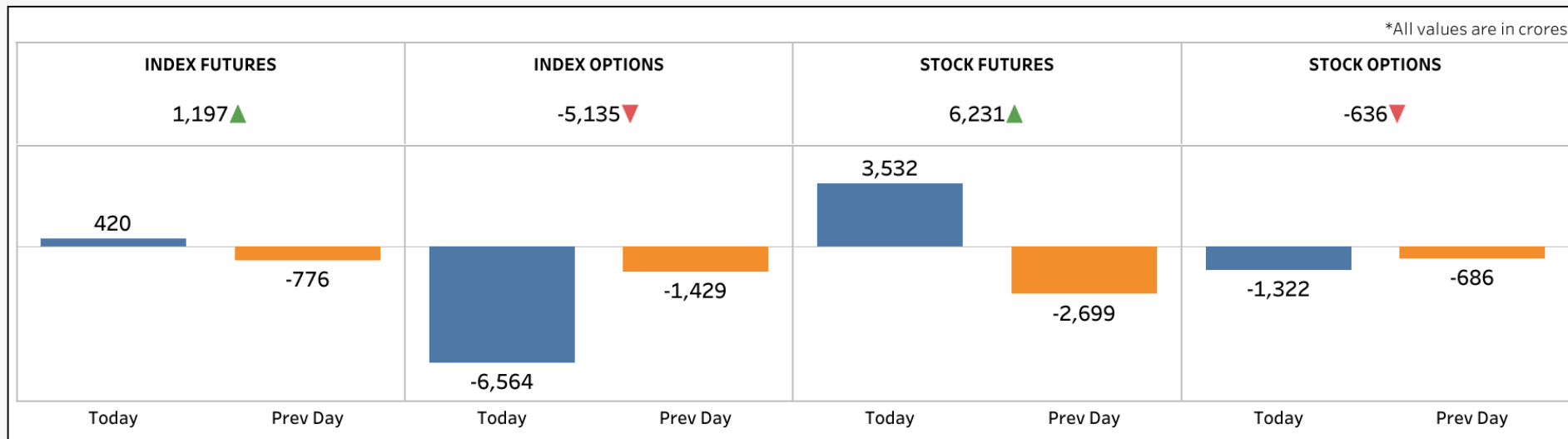
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MANAPPURAM	4,00,65,000	-6.0%	277.99	-0.7%
PAGEIND	1,66,845	-1.3%	45805	-0.8%
RBLBANK	8,65,24,375	-1.2%	217.19	-1.4%
BRITANNIA	33,21,450	-0.7%	5576	-0.1%
DRREDDY	1,18,01,875	-0.5%	1348	-0.9%

For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

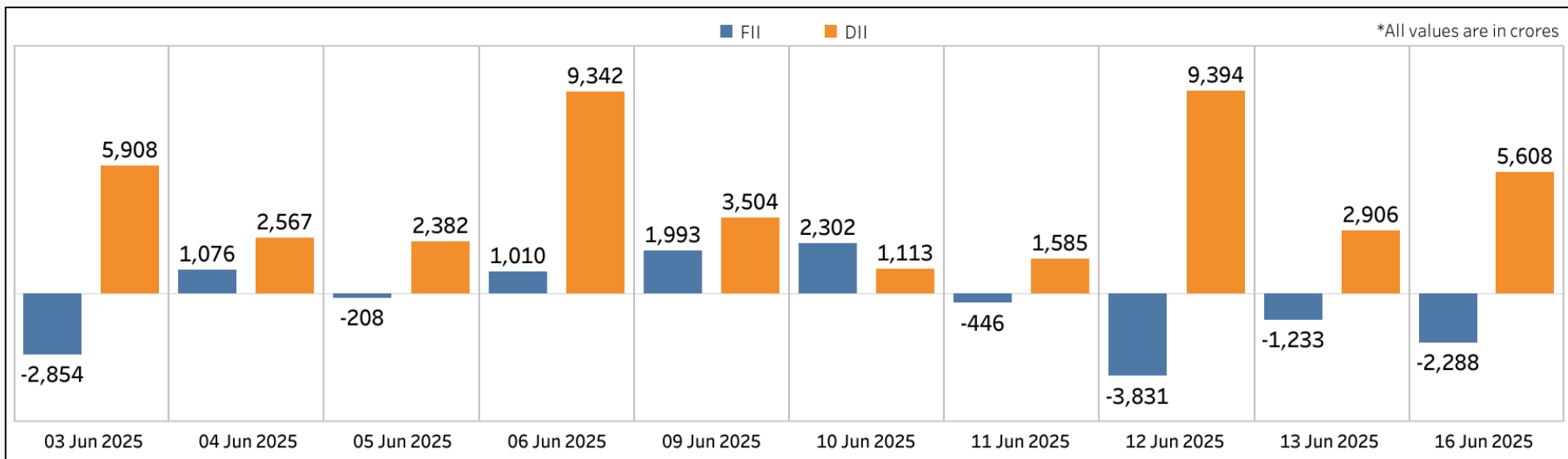
## Open Interest Trends by Participant



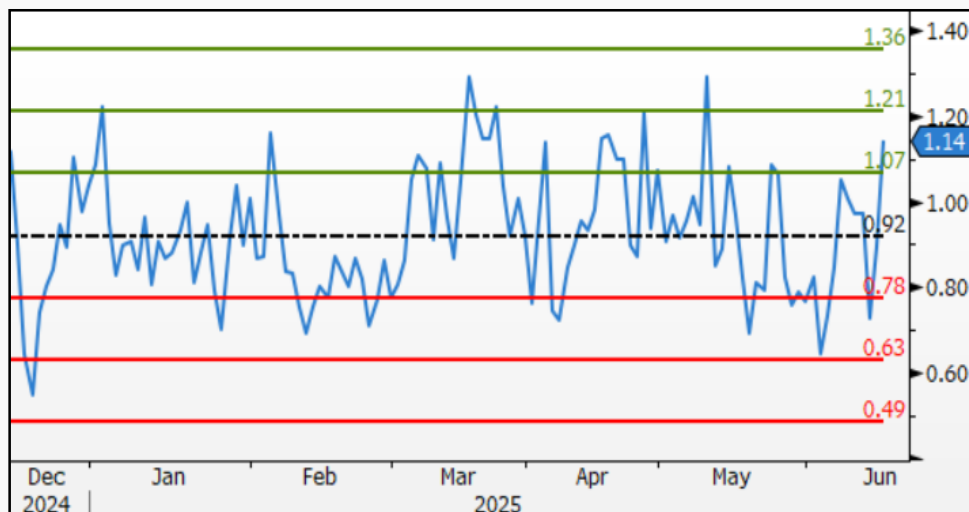
## Daily Net Open Interest Change



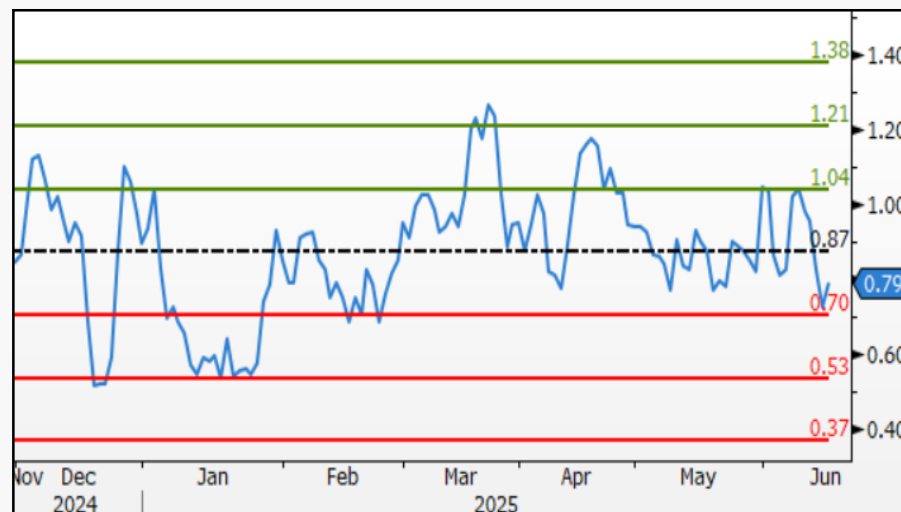
## DII and FII Daily Cash Market Flows



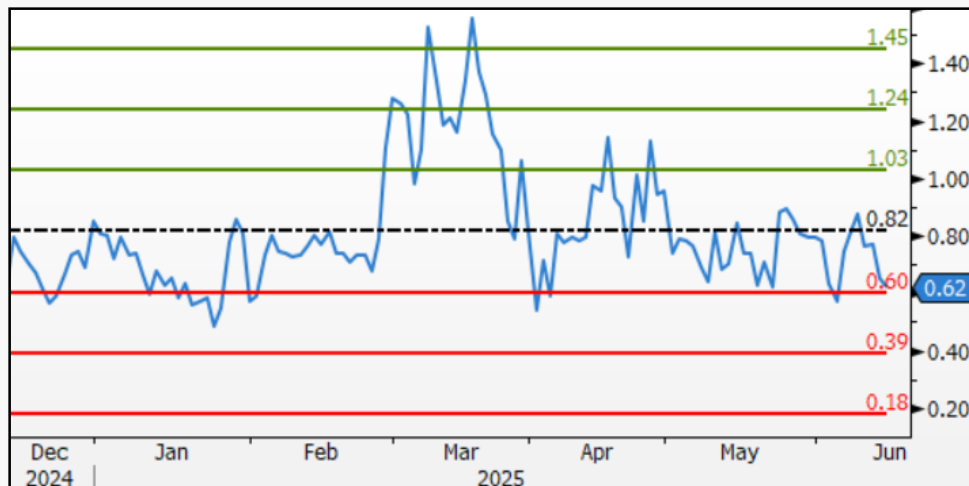
## Nifty



## Bank Nifty



## Fin Nifty

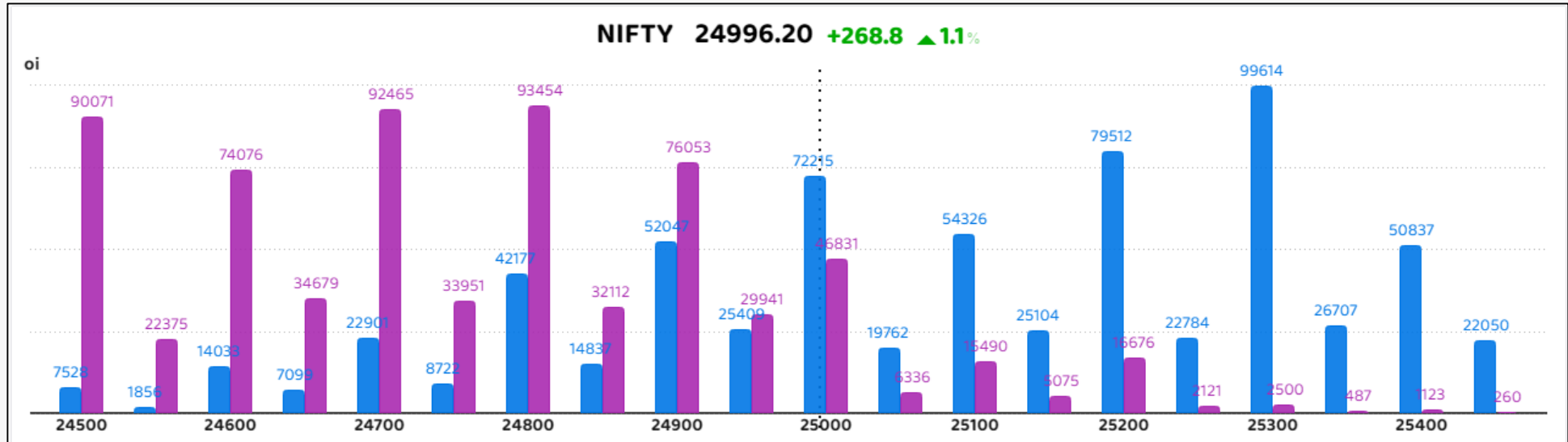


## Midcap Select Nifty



## Positioning Stack by Strike (Nifty Current Week Expiry & BankNifty Monthly Expiry)

Call  Put 



For the Nifty, the 25,300 Call and the 24,800 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 56,000 Call and the 56,000 Put saw the most amount of open interest.

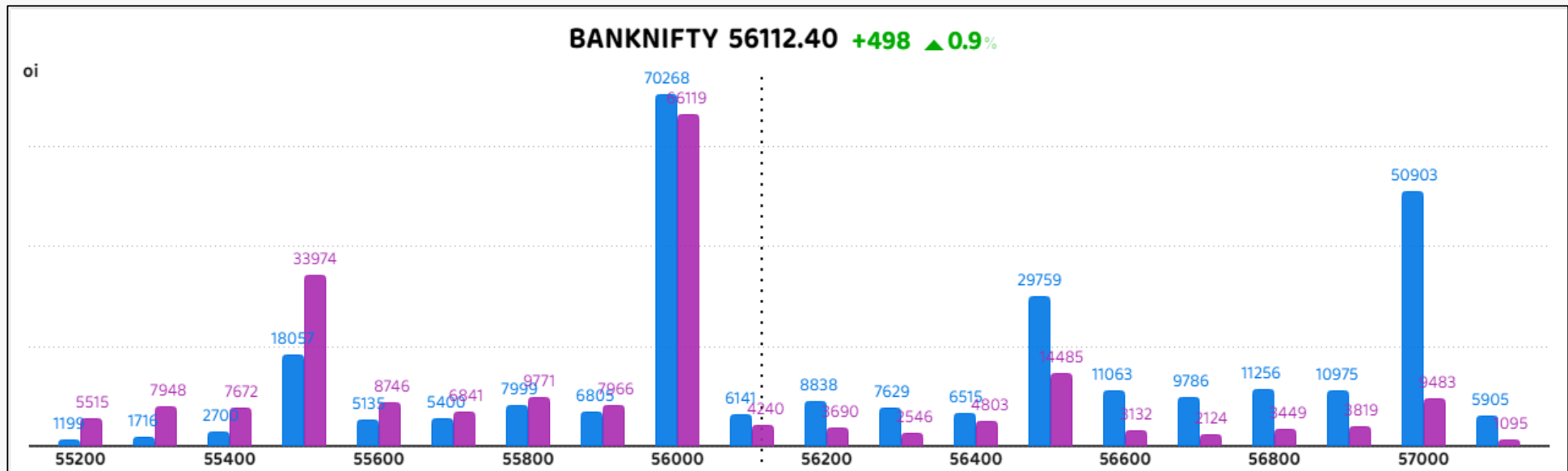
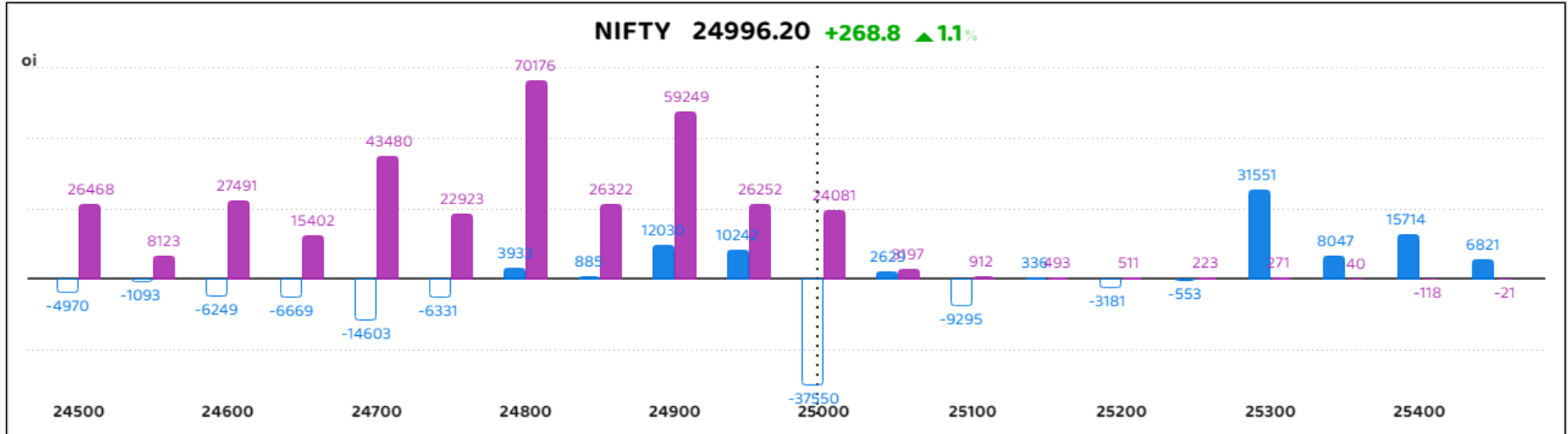


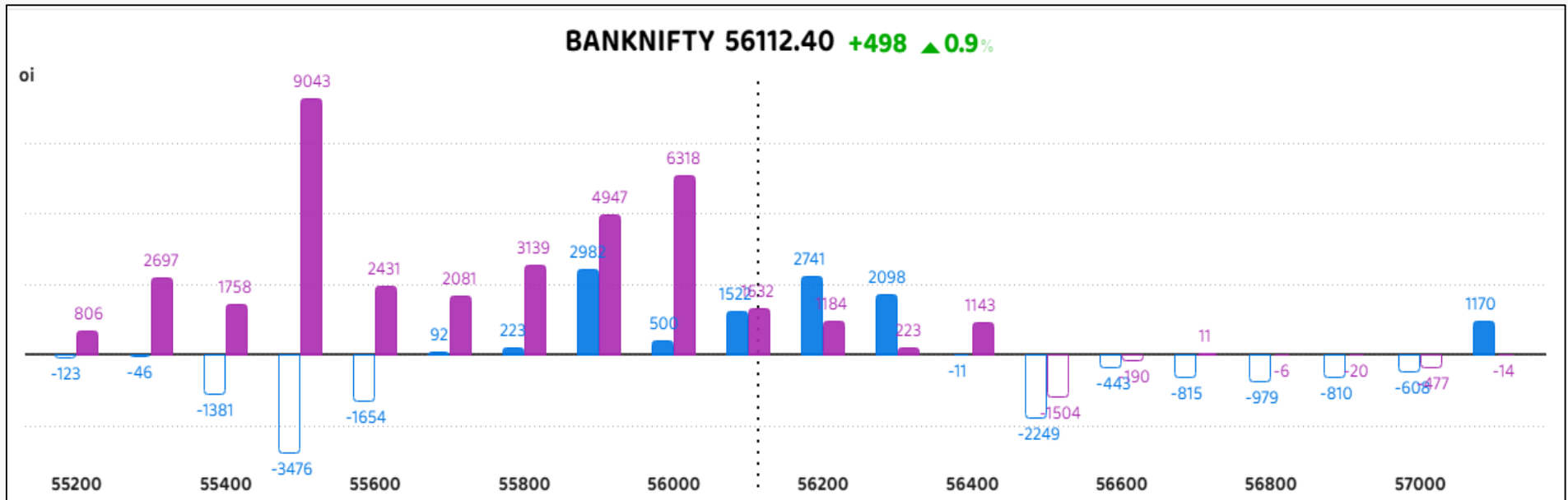
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

## Open Interest Change (Nifty Current Week Expiry & BankNifty Monthly Expiry)

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,000 Call and the 24,800 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,500 Call & the 55,500 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
RBL BANK LTD	217.14	-1.4	66.8	76.5	13.3	84.6
ADITYA BIRLA FASHION	74.93	1.5	46.0	60.3	9.9	71.6
MARUTI SUZUKI	12530	1.0	20.5	29.9	0.4	68.2
ASTRAL LTD	1552.5	1.6	27.0	38.4	2.9	67.8
IREDA	167.93	0.4	56.8	69.2	33.6	65.2

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
MAZAGON DOCK	3165.6	-1.1	39.6	48.4	39.6	0.0
RAIL VIKAS NIGAM	409.5	0.6	35.9	45.7	35.9	0.0
BHARAT DYNAMICS	1888	-0.6	39.6	46.7	39.6	0.0
HUDCO	229.8	0.7	29.7	61.0	29.7	0.0
ACC LTD	1872.7	1.4	21.2	40.5	21.2	0.0



### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
RBL BANK LTD	217.14	-1.4	66.8	76.5	13.3	98.6
KAYNES TECHNOLOGIES	5597.5	2.2	39.1	49.4	34.4	84.0
HCL TECH LTD	1723	1.6	26.7	46.0	17.9	78.6
IREDA	167.93	0.4	56.8	69.2	33.6	74.0
PIRAMAL PHARMA	199.25	-0.5	37.4	39.1	35.8	71.0

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MAZAGON DOCK	3165.6	-1.1	39.6	48.4	39.6	0.0
RAIL VIKAS NIGAM	409.5	0.6	35.9	45.7	35.9	0.0
BHARAT DYNAMICS	1888	-0.6	39.6	46.7	39.6	0.0
HUDCO	229.8	0.7	29.7	61.0	29.7	0.0
ACC LTD	1872.7	1.4	21.2	40.5	21.2	0.0

## Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
BOSCH LTD	32280	2.2	10676	1676	6.4
SYNGENE INTERNATIONAL	660.35	1.1	5934	1100	5.4
KPIT TECHNOLOGIES	1405.8	3.9	35157	6712	5.2
SUPREME INDS LTD	4557.3	4.8	20716	4553	4.6
EXIDE INDUS LTD	384.3	-0.1	9751	2201	4.4

## Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
NCC LTD	229.3	1.2	4803	11915	2.5
AU SMALL FINANCE	781.45	1.7	10794	14577	1.4
ADANI PORTS	1400.6	-0.3	42976	48760	1.1
APL APOLLO TUBES	1852.9	0.4	2927	3076	1.1
MARICO LTD	690.8	-0.1	4063	4215	1.0

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
HINDUSTAN ZINC	503.0	-0.3	18190	18190	100.0
MAZAGON DOCK	3165.6	-1.1	24836	24836	100.0
MANKIND PHARMA	2370.0	-0.5	2578	2578	100.0
RAIL VIKAS NIGAM	409.5	0.6	12457	12457	100.0
BHARAT DYNAMICS	1888.0	-0.6	13969	13969	100.0

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
MAZAGON DOCK	3165.6	-1.1	7608	7608	100.0
MUTHOOT FINANCE	2633.3	1.3	15955	15955	100.0
RAIL VIKAS NIGAM	409.5	0.6	4236	4236	100.0
BHARAT DYNAMICS	1888	-0.6	5051	5051	100.0
OIL INDIA LTD	480.85	0.6	5745	5745	100.0

## Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
MAZAGON DOCK	3165.6	-1.1	51618	51618	100.0
PI INDUSTRIES	4146.5	4.4	96145	96145	100.0
BHARAT DYNAMICS	1888	-0.6	3364	41737	80.6
TATA MOTORS LTD	686.65	-3.6	430002	534086	80.5
KAYNES TECHNOLOGIES	5597.5	2.2	6089	8178	74.5

## Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
MAZAGON DOCK SHI	3165.6	-1.1	16799	16799	100.0
TATA MOTORS LTD	686.65	-3.6	259200	302746	85.6

### Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
UNITED SPIRITS	1485.4	2.2	28488	10941	2.6
OIL INDIA LTD	480.85	0.6	11045	4347	2.5
HINDUSTAN ZINC	512.95	-0.3	18190	7552	2.4
SONA BLW PRECISION	500.2	-0.3	7880	3692	2.1
KAYNES TECHNOLOGIES	5597.5	2.2	2817	1384	2.0

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
OIL INDIA LTD	480.85	0.6	5745	2489	2.3
UNITED SPIRITS	1485.4	2.2	12788	5685	2.2
HINDUSTAN ZINC	512.95	-0.3	6685	3545	1.9
GLENMARK PHARMA	1683.4	0.8	9919	5302	1.9
HPCL	395.35	2.4	7729	4431	1.7

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
KPIT TECHNOLOGIES	1405.8	3.9	35157	6608	5.3
INDRAPRASTHA GAS	212.33	6.8	43290	8451	5.1
PI INDUSTRIES	4146.5	4.4	96145	19833	4.8
KAYNES TECHNOLOGIES	5597.5	2.2	6089	1609	3.8
MAX FINANCIAL	1577	3.3	20882	5541	3.8

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
BHARAT DYNAMICS	1888	-0.6	12628	3153	4.0
PI INDUSTRIES	4146.5	4.4	26228	7284	3.6
TATA MOTORS LTD	686.65	-3.6	259200	73505	3.5
BLUE STAR LTD	1675.2	1.8	4065	1175	3.5
INDRAPRASTHA GAS	212.33	6.8	13674	4114	3.3

## Nifty 50 Constituents Open Interest (OI) Dashboard – Support / Resistance

Distance of Strike With Highest Open Interest From Current Market Price (%)

Stock Name	CE STRIKE	CE OI	%Away	CMP	PE Strike	PE OI	%Away	Stock Name	CE STRIKE	CE OI	%Away	CMP	PE Strike	PE OI	%Away
ADANIENT	2700	1761900	6.1%	2544	2700	1534800	6.1%	ITC	440	12276800	5.2%	418	420	5011200	0.4%
ADANIPTS	1500	1884800	7.1%	1401	1400	1293600	0.0%	JIOFIN	300	8248350	2.0%	294	290	4344450	-1.4%
APOLLOHOSP	7200	265250	1.2%	7114	6900	151250	-3.0%	JSWSTEEL	1020	1537650	1.6%	1004	1000	509625	-0.4%
ASIANPAINT	2260	1256800	0.7%	2245	2200	1228200	-2.0%	KOTAKBANK	2160	1080800	1.0%	2139	2000	550000	-6.5%
AXISBANK	1250	4724375	2.8%	1215	1200	1298125	-1.3%	LT	3700	1408200	2.0%	3629	3600	430950	-0.8%
BAJAJ-AUTO	9000	600225	5.5%	8530	8500	142125	-0.3%	M&M	3100	1294300	2.5%	3024	3000	772800	-0.8%
BAJAJFINSV	2060	1589500	1.6%	2028	1900	610000	-6.3%	MARUTI	13000	331500	3.8%	12530	12000	105000	-4.2%
BAJFINANCE	1000	11298750	6.6%	938	900	4612500	-4.1%	NESTLEIND	2500	256800	4.6%	2390	2200	172600	-7.9%
BEL	400	13400700	-1.0%	404	380	7620900	-5.9%	NTPC	340	10915500	1.9%	334	340	3522000	1.9%
BHARTIARTL	2000	3452775	7.5%	1861	1860	1330475	-0.1%	ONGC	260	17382750	1.3%	257	250	4448675	-2.6%
CIPLA	1600	1131000	4.8%	1527	1320	548275	-13.6%	POWERGRID	300	8877600	3.9%	289	270	3238200	-6.5%
COALINDIA	400	6030150	1.4%	394	400	3435600	1.4%	RELIANCE	1500	6794500	4.3%	1438	1400	2931000	-2.6%
DRREDDY	1300	1205625	-3.5%	1347	1300	786250	-3.5%	SBILIFE	1860	1128750	3.5%	1798	1800	338625	0.1%
EICHERMOT	6000	298900	11.8%	5365	5000	122850	-6.8%	SBIN	820	13275000	3.5%	793	820	5550000	3.5%
ETERNAL	270	9716000	7.1%	252	240	9194000	-4.8%	SHRIRAMFIN	700	1865250	3.5%	676	660	805500	-2.4%
GRASIM	2800	305750	3.5%	2705	2600	264000	-3.9%	SUNPHARMA	1700	2275350	0.9%	1685	1600	888650	-5.1%
HCLTECH	1740	1298850	1.0%	1723	1640	626850	-4.8%	TATACONSUM	1200	1233024	10.8%	1083	1000	230280	-7.7%
HDFCBANK	2000	6839250	3.3%	1935	1940	2638350	0.2%	TATAMOTORS	720	8390800	4.9%	687	700	2896850	1.9%
HDFCLIFE	800	3785100	3.8%	771	730	614900	-5.3%	TATASTEEL	161.4	18672500	4.7%	154	146.4	7392000	-5.0%
HEROMOTOCO	4500	686400	3.1%	4365	4200	206100	-3.8%	TCS	3500	1637125	0.1%	3496	3400	903000	-2.8%
HINDALCO	700	4988200	7.8%	650	600	1085000	-7.6%	TECHM	1700	1019400	0.4%	1694	1600	846600	-5.5%
HINDUNILVR	2400	3141300	3.1%	2327	2300	884700	-1.2%	TITAN	3600	537075	4.7%	3438	3500	196875	1.8%
ICICIBANK	1470	4655700	3.0%	1427	1450	2118900	1.6%	TRENT	6000	537500	5.6%	5680	5500	406100	-3.2%
INDUSINDBK	820	4497000	-0.2%	821	800	1734000	-2.6%	ULTRACEMCO	12000	208200	4.4%	11495	9800	117750	-14.7%
INFY	1640	2363600	1.0%	1624	1600	1547600	-1.5%	WIPRO	270	7074000	2.7%	263	250	4485000	-4.9%

If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green

If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike will be colored red

If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating existing positions**
- **Long build up:** Prices increase with a rise in open interest and is considered **bullish**
- **Long liquidation:** Existing longs liquidate their positions and open interest also falls; **moderately bearish**
- **Short build up:** Prices drop with a rise in open interest, and this is considered **bearish**
- **Short covering:** Existing shorts cover their positions, and open interest drop; this is **moderately bullish**
- PCR goes up when 1) both put and call open interest go up, but puts rise faster, or 2) both put and call open interest go down, but calls fall faster or, 3) when puts go up and calls go down
- Generally, a **rising PCR is bearish**, but when it reaches an extremely **high** reading, it means people are likely to take contrarian bets, i.e., they are likely to turn **bullish**
- PCR goes down when 1) both put and call open interest go up, but calls rise faster, or 2) both put and call open interest go down, but puts fall faster or, 3) when puts go down and calls go up
- Typically, a **falling PCR is bullish**, but when it reaches an extremely **low** reading, it means people are likely to take contrarian bets, i.e., they are likely to turn **bearish**

*\*ATM IV is the midpoint of the IV for the ATM call and put respectively*



- **Volume:** Number of contracts traded for the day. If A bought 10 calls & B sold 10 calls, the volume for the day is 10 contracts
- **Open Interest:** The number of derivatives contracts that are open (have not been closed out). If A bought 10 calls, B bought another 10 calls and C sold 20 calls, then the open interest for the day is 20 contracts
- **Total open interest:** Total of all open positions for all available expirations. It is the sum of all outstanding long positions OR short positions. This is because the total number of long positions must equal the total number of short positions
- **Premium:** When the front-month futures are more expensive than the cash market price. For instance, if Nifty futures (first month contract) are at 25,500 when the cash Nifty is at 25,450, the premium is 50 points
- **Discount:** When the front-month futures are cheaper than the cash market price. For instance, if Tata Steel futures (first month contract) are at 160 when the stock is trading at 162 in the cash market, the discount is 2 points
- **At-the-Money (ATM):** When the strike price of an option is the same as the spot price, the option is called an ATM option
- **Implied Volatility (IV):** Measure of how much a stock is expected to move in the future (in either direction)
- **Put-Call Ratio (PCR):** Ratio of total number of outstanding puts to total number of calls outstanding. If this ratio is more (less) than one, it means more puts (calls) are open relative to calls (puts)
- **Derivatives market participants:** Foreign Institutional Investors (FIIs), Domestic Institutional Investors (DII)s, proprietary traders and Retail investors
- **Derivatives Instruments:** Index options, index futures, stock options, stock futures
- **Expirations covered:** Index options (weekly, monthly), stock options, stock futures and index futures (monthly)
- For pages 7 to 11, “Last px” refers to the closing price of the cash market ticker
- **Source(s):** [www.nseindia.com](http://www.nseindia.com), Bloomberg, MyFnO

- **Strike concentration:** Visual representation of how many calls and puts are outstanding at each strike in the vicinity of the current underlying price. The strike with the highest call open interest is considered as resistance, while the put strike with the highest number of outstanding positions is considered as support
- **Shifting concentration:** Strikes with highest call and put concentration are dynamic in nature and keep changing as per movements in the markets
- **Implied Volatility Rank (IVR):** Measure of how expensive or cheap the IV of an ATM option is, relative to its 12-month history. The reading oscillates between 0 and 100



Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **Implied Volatility Percentile (IVP):** Measures the number of days IV has been below the current IV in the last 252 trading days. The reading moves between 0 and 100.



In the chart to the left, one can see that the bulk of the time the IV has been below its current level. In this case, the IVP will be close to 100. An IVP of 100 means that 100% of the time IV has been below its current reading in the last one year.



Notice that IV has mostly traded at the high end of its one-year range, and there have been very few values below the current IV. In such a scenario, the IVP is going to be close to 0. An IVP of say, 5, means that IV has been below the current IV only 5% of the time in the last 252 trading sessions.

Axis Securities Limited is a subsidiary company of Axis Bank Ltd. Axis Bank Ltd. is a listed public company and one of India's largest private sector banks and has its various subsidiaries engaged in businesses of Asset management, NBFC, Merchant Banking, Trusteeship, Venture Capital, Stock Broking, the details in respect of which are available on [www.axisbank.com](http://www.axisbank.com).

Axis Securities Limited, is registered as a Stock Broker, Depository Participant, Portfolio Manager, Investment Adviser and Research Analyst with Securities and Exchange Board of India Corporate Agent with Insurance Regulatory and Development Authority of India Point of Presence with Pension Fund Regulatory and Development Authority Distributor for Mutual Funds with AMFI

#### Registration Details:

SEBI Single Reg. No.- NSE, BSE,MSEI, MCX & NCDEX – INZ000161633 | SEBI Depository Participant Reg. No. IN-DP-403-2019 | Portfolio Manager Reg. No.- INP000000654 | Investment Advisor Reg No. INA000000615 | SEBI-Research Analyst Reg. No. INH000000297 | IRDA Corporate Agent (Composite) Reg. No. CA0073| PFRDA – POP Reg. No. POP387122023 | Mutual Fund Distributor ARN- 64610.

Compliance Officer Details: Name – **Mr. Rajiv Kejriwal**, Tel No. – 022-68555574, Email id – [compliance.officer@axisdirect.in](mailto:compliance.officer@axisdirect.in);

Registered Office Address – Axis Securities Limited, Unit No.002, Building- A, Agastya Corporate Park, Piramal Realty, Kamani Junction, Kurla (W), Mumbai – 400070.

Administrative office address: Aurum Q Parc, Q2 Building, Unit No. 1001, 10th Floor, Level – 6, Plot No. 4/1 TTC, Thane – Belapur Road, Ghansoli, Navi Mumbai, Pin Code – 400710.

In case of any grievances please call us at 022-40508080 or write to us [helpdesk@axisdirect.in](mailto:helpdesk@axisdirect.in).

We hereby declare that our activities were neither suspended nor we have defaulted with any stock exchange authority with whom we are registered in last five years. However, SEBI, Exchanges, Clearing Corporations and Depositories etc. have conducted the routine inspection and based on their observations have issued advise/warning/show cause notices/deficiency letters/ or levied penalty or imposed charges for certain deviations observed in inspections or in normal course of business, as a Stock Broker / Depository Participant/Portfolio Manager. We have not been debarred from doing business by any Stock Exchange / SEBI or any other authorities; nor has our certificate of registration been cancelled by SEBI at any point of time.

Investments in securities market are subject to market risks. Read all the related documents carefully before investing.

By referring to any particular sector, Axis Securities does not provide any promise or assurance of favourable view for a particular industry or sector or business group in any manner.

Registration granted by SEBI, membership of BASL (in case of IAs) and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors. None of the research recommendations promise or guarantee any assured, minimum or risk-free return to the investors. Our research should not be considered as an advertisement or advice, professional or otherwise. This research report and its respective content by Axis Securities made available on this page or otherwise do not constitute an offer to sell or purchase or subscribe for any securities or solicitation of any investments or investment services for the residents of Canada and / or USA or any jurisdiction where such an offer or solicitation would be illegal.

Subject company(ies) may have been client during twelve months preceding the date of distribution of the research report. Derivatives are a sophisticated investment device. The investor is requested to take into consideration all the risk factors before actually trading in derivative contracts.

Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Information, opinions and estimates contained in this report reflect a judgment of its original date of publication by ASL and are subject to change without notice. The price, value of and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments is subject to exchange rate fluctuation that may have a positive or adverse effect on the price or income of such securities or financial instruments.

The information and opinions in this report have been prepared by Axis Securities and are subject to change without any notice. The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of Axis Securities. The report must not be used as a singular basis of any investment decision. The views herein are of a general nature and do not consider the risk appetite, investment objective or the particular circumstances of an individual investor. The investor is requested to take into consideration all the risk factors including their financial condition, suitability to risk return profile and the like and take professional advice before investing.

While we would endeavour to update the information herein on a reasonable basis, Axis Securities is under no obligation to update or keep the information current. Also, there may be regulatory, compliance or other reasons that may prevent Axis Securities from doing so. Non-rated securities indicate that rating on a particular security has been suspended temporarily and such suspension is in compliance with applicable regulations and/or Axis Securities policies, in circumstances where Axis Securities might be acting in an advisory capacity to this company, or in certain other circumstances.

**Disclaimer & Disclosures :**

This report is based on information obtained in good faith from public sources and sources believed to be reliable, but no independent verification has been made nor is its accuracy or completeness guaranteed. This report and information herein is solely for informational purpose and shall not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. Axis Securities will not treat recipients as customers by virtue of their receiving this report. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. The recipient should independently evaluate the investment risks. The value and return on investment may vary because of changes in interest rates, foreign exchange rates or any other reason. Axis Securities accepts no liabilities whatsoever for any loss or damage of any kind arising out of the use of this report. Past performance is not necessarily a guide to future performance. Investors are advised to see Risk Disclosure Document to understand the risks associated before investing in the securities markets. Actual results may differ materially from those set forth in projections. Forward-looking statements are not predictions and may be subject to change without notice. Axis Securities or its associates might have managed or co-managed public offering of securities for the subject company or might have been mandated by the subject company for any other assignment in the past twelve months. Axis Securities or its associates might have received any compensation from the companies mentioned in the report during the period preceding twelve months from the date of this report for services in respect of managing or co-managing public offerings, corporate finance, investment banking or merchant banking, brokerage services or other advisory service in a merger or specific transaction. Axis Securities or its associates might have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the companies mentioned in the report in the past twelve months. Axis Securities encourages independence in research report preparation and strives to minimize conflict in preparation of research report. Axis Securities or its associates or its analysts did not receive any compensation or other benefits from the companies mentioned in the report or third party in connection with preparation of the research report. Accordingly, neither Axis Securities nor Research Analysts and / or their relatives have any material conflict of interest at the time of publication of this report. Please note that Axis Securities has a proprietary trading desk. This desk maintains an arm's length distance with the Research team and all its activities are segregated from Research activities. The proprietary desk operates independently, potentially leading to investment decisions that may deviate from research views.

Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

Research Analyst may have served as an officer, director or employee of subject company(ies). Axis Securities or Research Analysts or their relatives do not own 1% or more of the equity securities of the Company mentioned in the report as of the last day of the month preceding the publication of the research report. Since associates of Axis Securities and Axis Securities as an entity are engaged in various financial service businesses, they might have financial interests or actual/beneficial ownership of one percent or more or other material conflict of interest in various companies including the subject company/companies mentioned in this report. Axis Securities may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report. Certain transactions -including those involving futures, options and other derivatives as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. Reports based on technical analysis centres on studying charts of a stock's price movement and trading volume, as opposed to focusing on a company's fundamentals and as such, may not match with a report on a company's fundamentals.

We and our affiliates/associates, officers, directors, and employees, Research Analyst(including relatives) worldwide may: (a) from time to time, have long or short positions in, and buy or sell the securities thereof, of company (ies) mentioned herein or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the subject company/company (ies) discussed herein or act as advisor or lender / borrower to such company (ies) or have other potential/material conflict of interest with respect to any recommendation and related information and opinions at the time of publication of Research Report or at the time of public appearance. Axis Securities may have proprietary long/short position in the above mentioned scrip(s) and therefore may be considered as interested. This should not be construed as invitation or solicitation to do business with Axis Securities. Axis Securities is also a Portfolio Manager. Portfolio Management Team (PMS) takes its investment decisions independent of the PCG research and accordingly PMS may have positions contrary to the PCG research recommendation.

#### Disclaimer & Disclosures:

Axis Securities or its associates or its analysts did not receive any compensation or other benefits from the companies mentioned in the report or third party in connection with preparation of the research report. Accordingly, neither Axis Securities nor Research Analysts and / or their relatives have any material conflict of interest at the time of publication of this report. Please note that Axis Securities has a proprietary trading desk. This desk maintains an arm's length distance with the Research team and all its activities are segregated from Research activities. The proprietary desk operates independently, potentially leading to investment decisions that may deviate from research views.

Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

Research Analyst may have served as an officer, director or employee of subject company(ies). Axis Securities or Research Analysts or their relatives do not own 1% or more of the equity securities of the Company mentioned in the report as of the last day of the month preceding the publication of the research report. Since associates of Axis Securities and Axis Securities as an entity are engaged in various financial service businesses, they might have financial interests or actual/beneficial ownership of one percent or more or other material conflict of interest in various companies including the subject company/companies mentioned in this report. Axis Securities may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report. Certain transactions -including those involving futures, options and other derivatives as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. Reports based on technical analysis centres on studying charts of a stock's price movement and trading volume, as opposed to focusing on a company's fundamentals and as such, may not match with a report on a company's fundamentals.

We and our affiliates/associates, officers, directors, and employees, Research Analyst(including relatives) worldwide may: (a) from time to time, have long or short positions in, and buy or sell the securities thereof, of company (ies) mentioned herein or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the subject company/company (ies) discussed herein or act as advisor or lender / borrower to such company (ies) or have other potential/material conflict of interest with respect to any recommendation and related information and opinions at the time of publication of Research Report or at the time of public appearance. Axis Securities may have proprietary long/short position in the above mentioned scrip(s) and therefore may be considered as interested. This should not be construed as invitation or solicitation to do business with Axis Securities. Axis Securities is also a Portfolio Manager. Portfolio Management Team (PMS) takes its investment decisions independent of the PCG research and accordingly PMS may have positions contrary to the PCG research recommendation.

Sr. No	Name	Designation	E-mail
1	Rajesh Palviya	SVP Research (Head Technical & Derivatives)	rajesh.palviya@axissecurities.in
2	Hemang Gor	Derivative Analyst	hemang.gor@axissecurities.in
3	Rahil Vora	Derivative Analyst	rahil.vora@axissecurities.in