



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	26,285	0.2%▼
Open Interest (OI)	1,56,30,420	1.9%▲
Change in OI (abs)	1,56,30,420	2,96,075▲
Premium / Discount (Abs)	106	25▲
<b>Inference</b>	<b>Short Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	60,313	0.2%▲
Open interest (OI)	15,67,200	7.4%▲
Change in OI (abs)	15,67,200	1,07,850▲
Premium / Discount (Abs)	194	66▲
<b>Inference</b>	<b>Long Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	10.02	0.00▲
Nifty ATM IV (%)	8.57	0.14▲
Bank Nifty ATM IV (%)	9.83	0.21▲
PCR (Nifty)	0.92	0.08▼
PCR (Bank Nifty)	1.15	0.01▲

The FII Long Ratio in Index Futures **jump** to 12.7 %, **up** from 11.5 % in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
IEX	8,00,88,750	28.1%	149.07	10.4%
PHOENIXLTD	35,09,800	11.1%	1958.2	1.0%
HAVELLS	85,01,500	9.5%	1508.4	3.5%
POLYCARB	31,95,375	9.1%	7836	0.5%
DELHIVERY	2,01,39,950	6.8%	416.2	0.4%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
SWIGGY	1,42,59,700	69.4%	362.25	-4.6%
PREMIERENE	33,97,675	42.1%	763.75	-3.3%
WAAREEENER	24,15,700	37.9%	2633.6	-2.8%
TRENT	96,32,800	17.2%	4067	-8.6%
KFINTECH	41,01,500	11.2%	1062.2	-0.1%

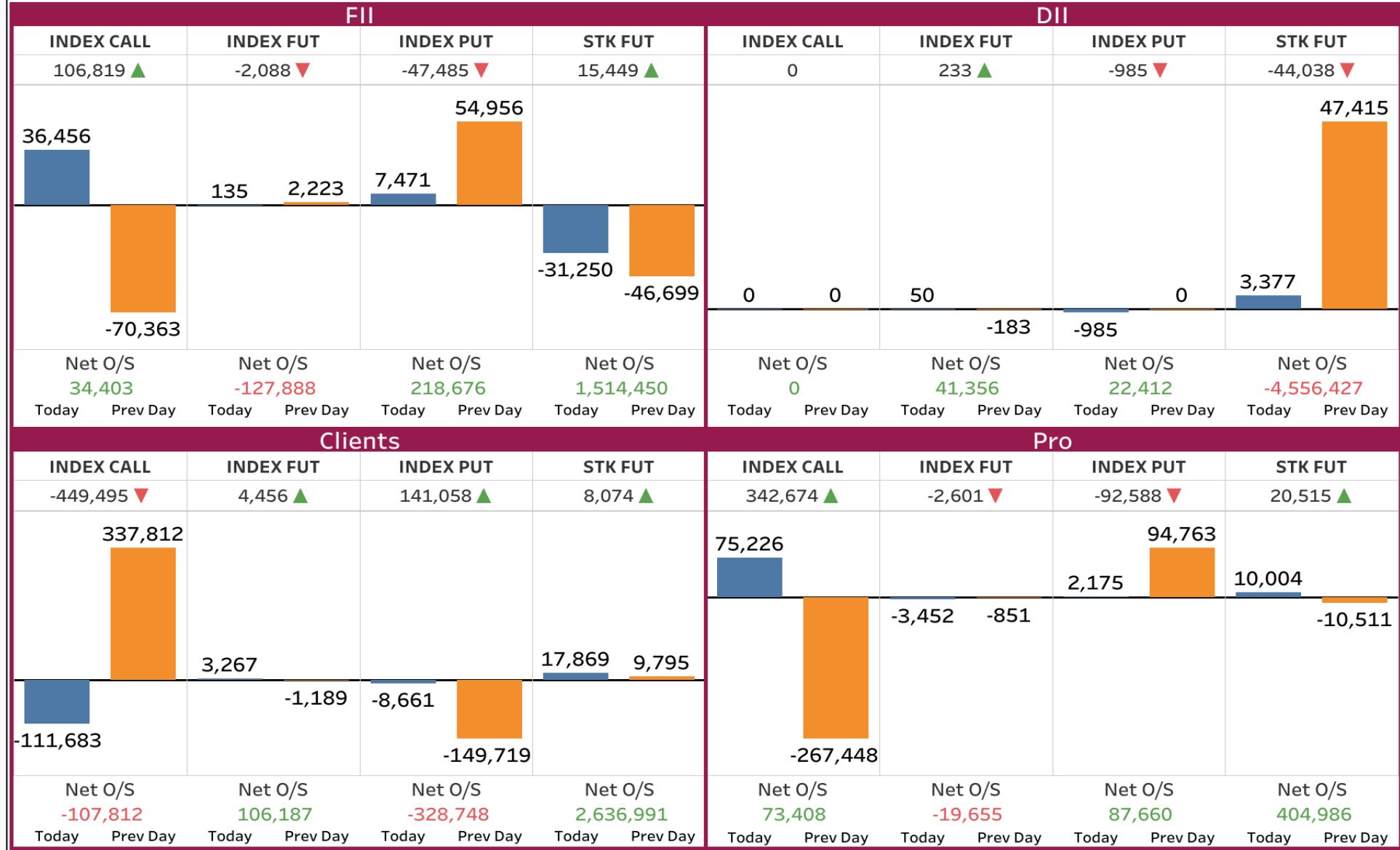
Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
FORTIS	1,15,52,925	-9.0%	947.5	3.0%
IIFL	1,09,14,750	-6.9%	668.75	3.1%
APOLLOHOSP	29,80,750	-5.4%	7365	3.4%
MCX	1,42,90,000	-4.8%	2260	2.3%
HINDALCO	6,05,06,600	-4.7%	945.8	1.3%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
SRF	34,47,000	-6.0%	3057.8	-1.4%
BLUESTARCO	24,83,975	-5.4%	1826.3	-1.3%
CANBK	14,57,05,500	-5.0%	154.1	-0.6%
UNOMINDA	43,76,900	-3.8%	1324	-1.4%
BOSCHLTD	1,91,175	-2.7%	39060	-0.6%

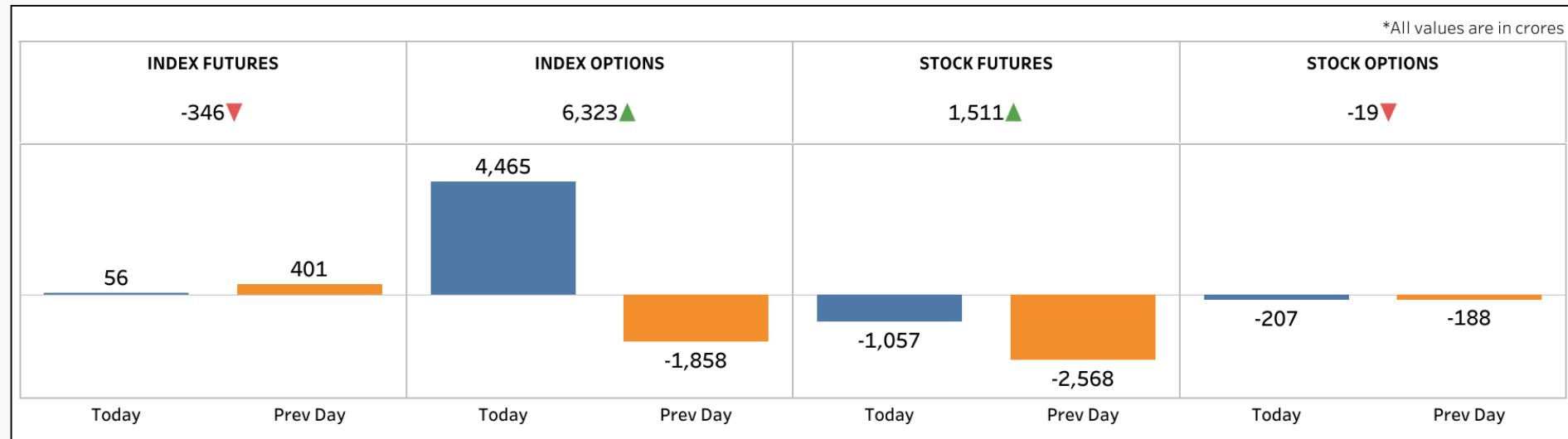
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Trends by Participant

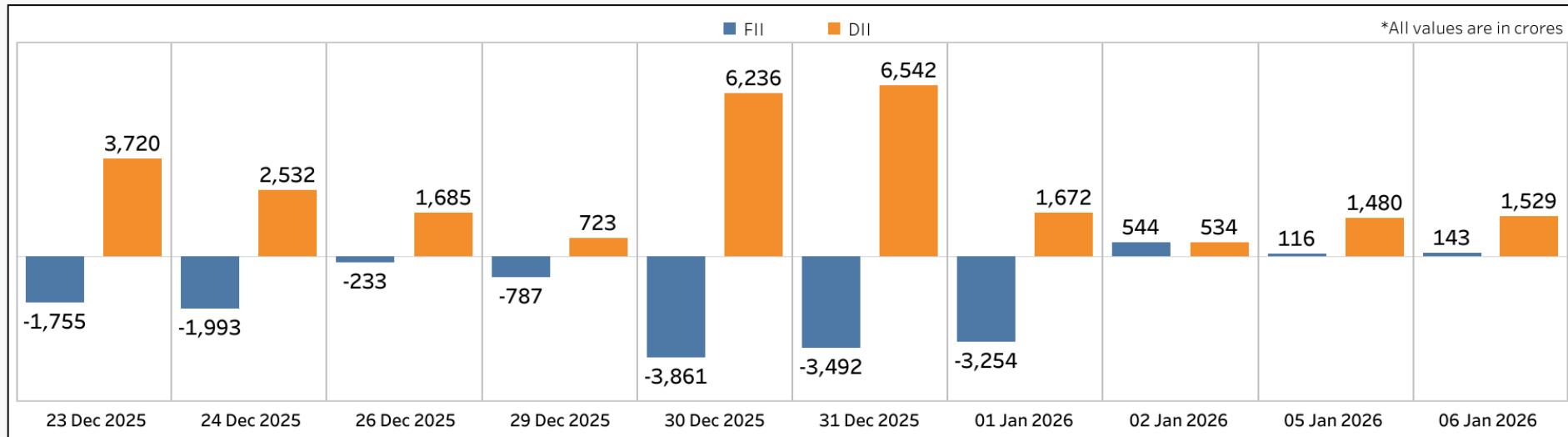
▲ and ▼ indicate positive and negative absolute changes, respectively

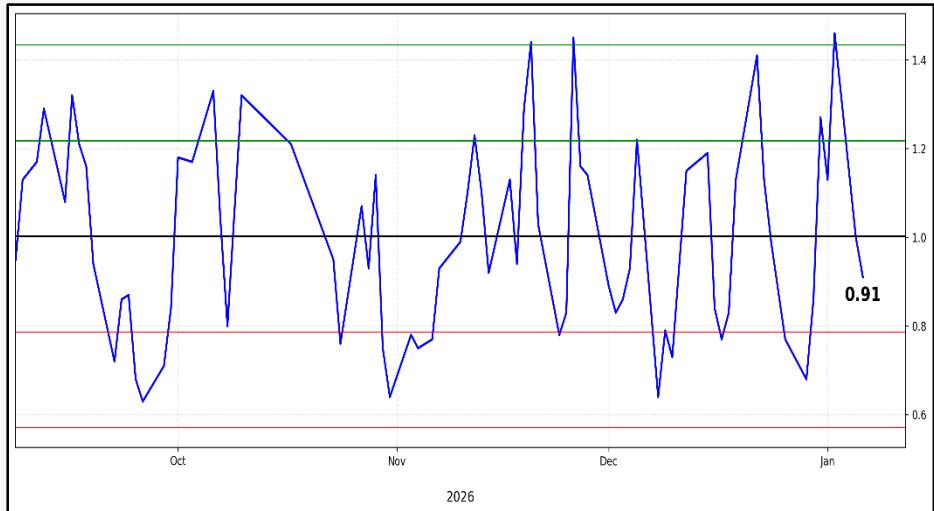
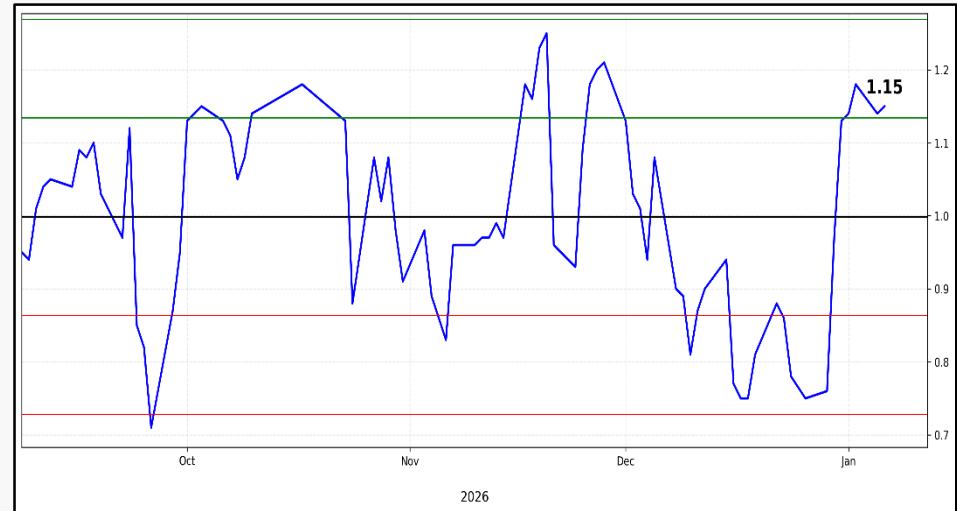
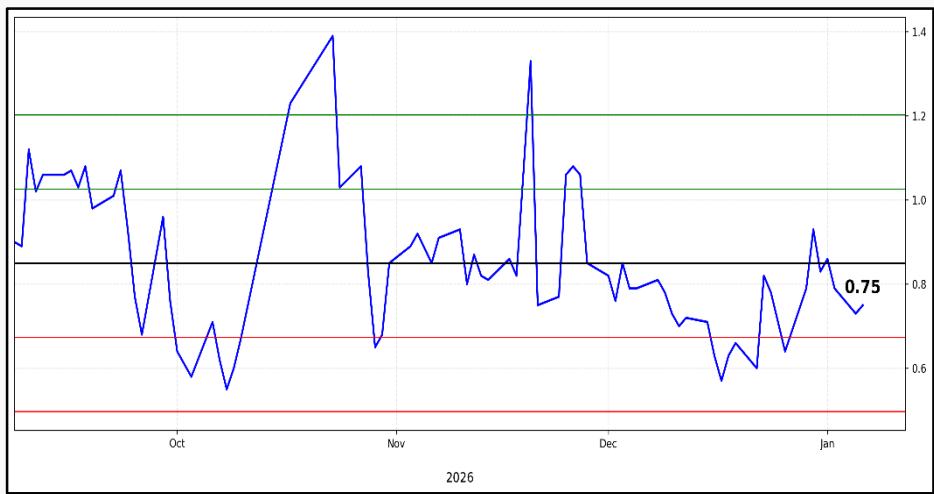
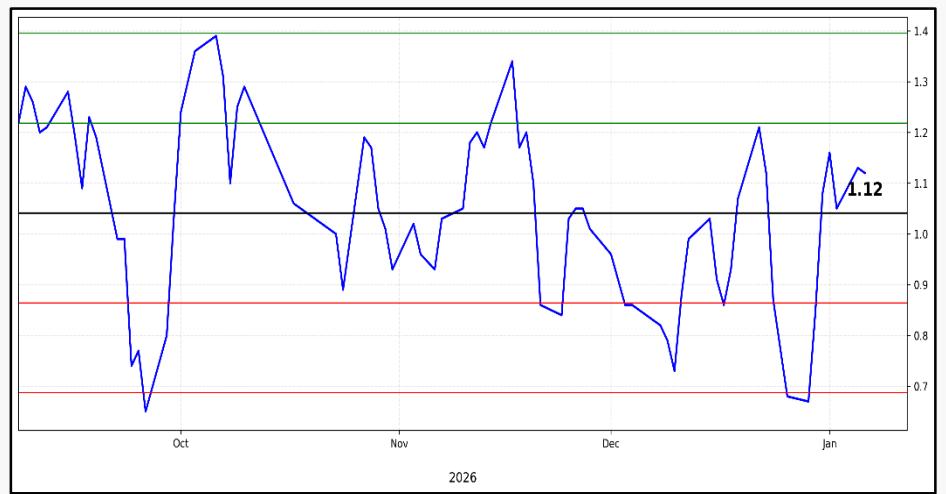


### Daily Net Open Interest Change



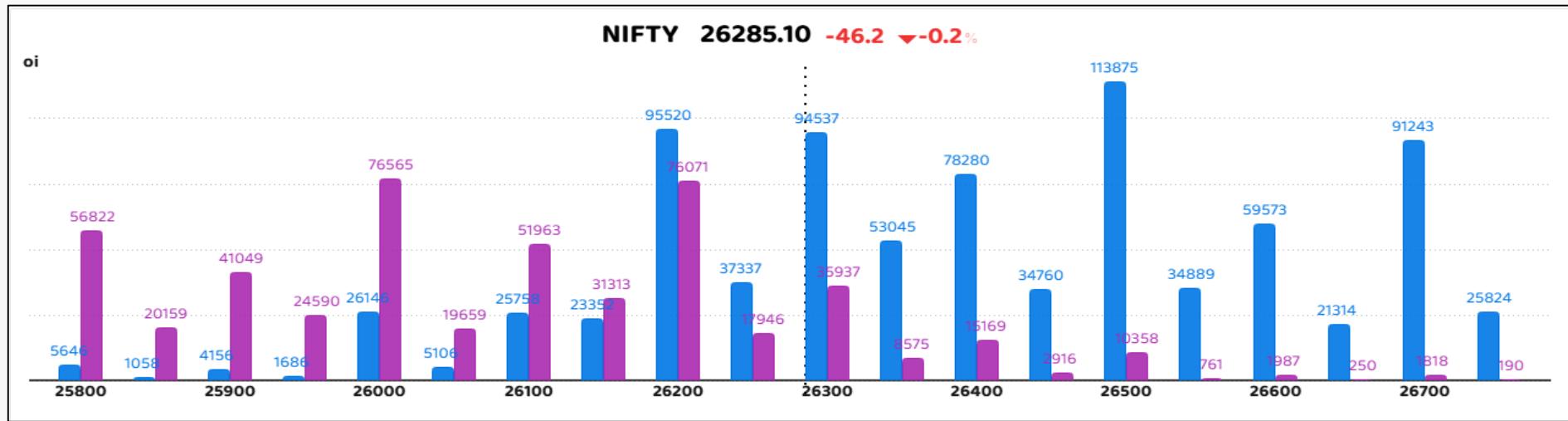
### DII and FII Daily Cash Market Flows



**Nifty**

**Bank Nifty**

**Fin Nifty**

**Midcap Select Nifty**


*On the day immediately post expiration, PCR values will differ due to the way open interest data for the expired series is treated for the PCR calculation*

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

 Call  Put 


For Nifty, the 26,500 Call and 26,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 60,000 Call and the 59,500 Put saw the most amount of open interest.

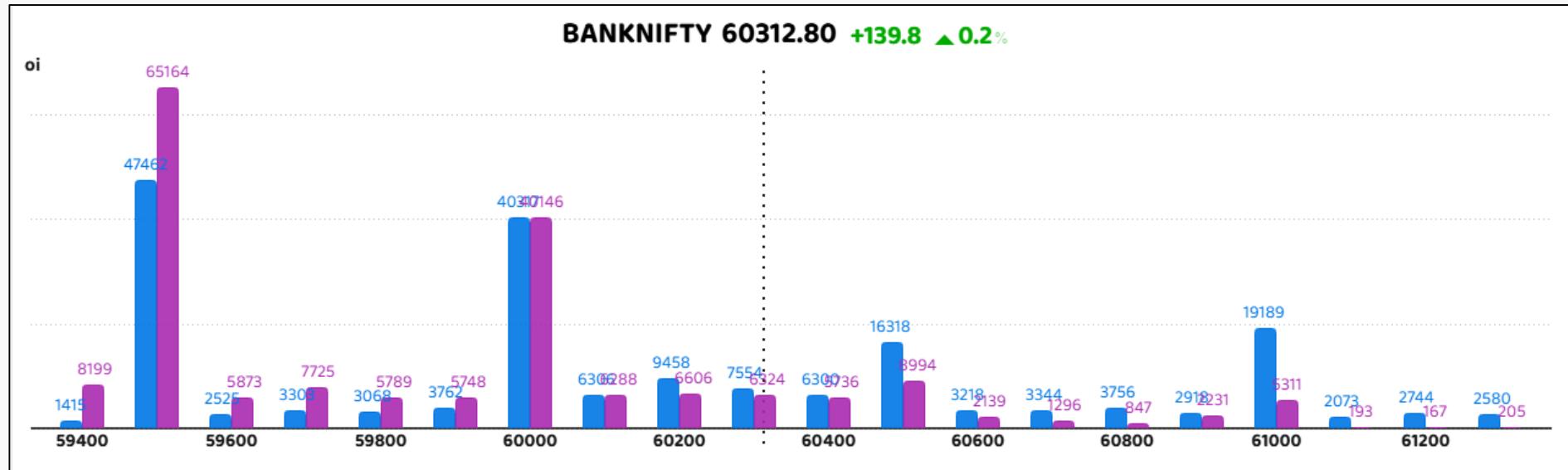
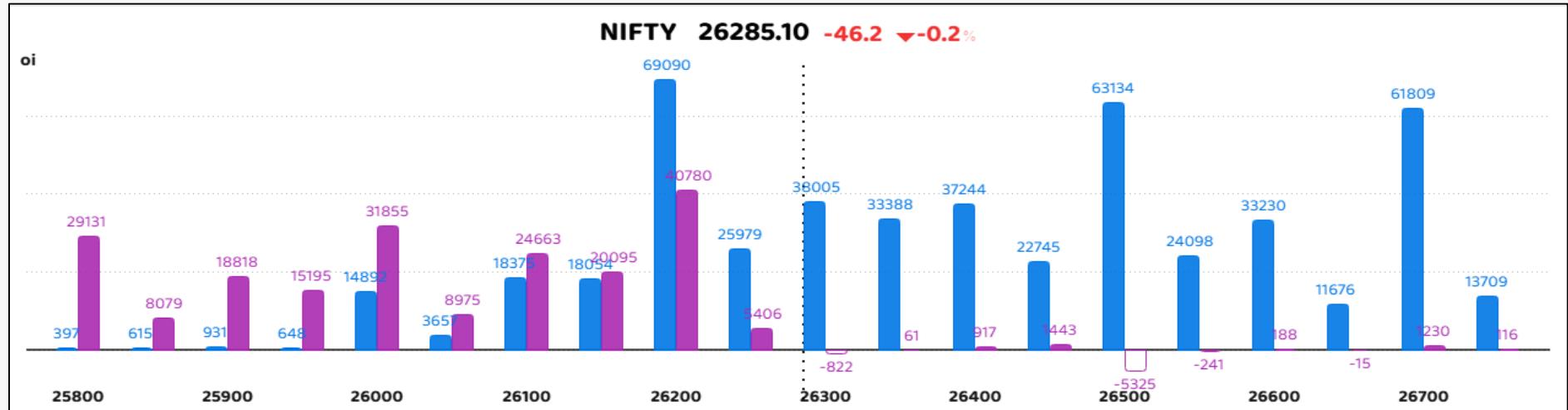
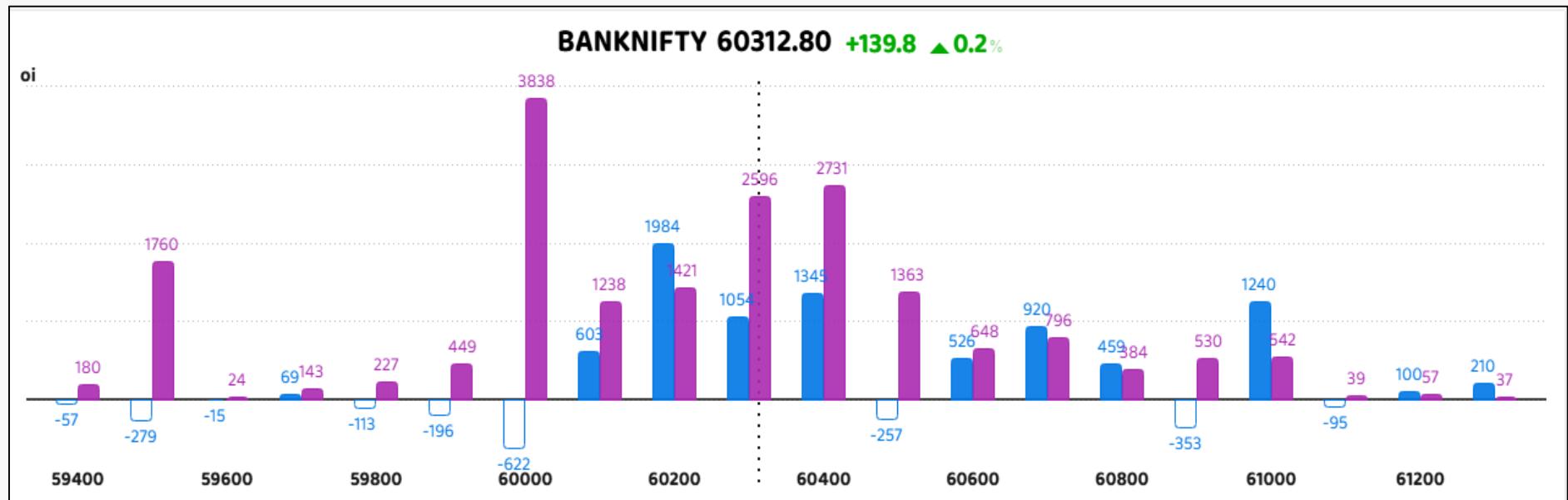


Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

 Call  Put 


The largest open interest changes (contracts) were seen at the 26,200 Call and the 26,500 Put



For the Bank Nifty, the biggest open interest changes were seen at the 60,400 Call & the 60,000 Put

### Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
DIXON TECHNOLOGI	11,726.0	-2.7	41.8	53.1	9.2	74.2
BAJAJ FINANCE LT	977.4	-0.1	26.8	34.0	12.6	66.3
KOTAK MAHINDRA	2,146.4	-2.0	21.6	32.4	1.1	65.6
TATA CONSUMER PR	1,210.4	2.4	23.3	34.4	5.2	62.1
ICICI LOMBARD GE	2,010.0	1.5	24.5	38.2	3.2	60.9

### Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
NTPC LTD	350.8	0.1	17.5	116.6	14.9	2.6
ADANI PORTS AND	1,473.2	-1.3	23.1	99.7	19.0	5.1
BIOCON LTD	385.2	-1.6	25.6	55.0	23.9	5.4
GAIL INDIA LTD	169.4	-2.1	24.1	91.4	19.4	6.5
ICICI PRUDENTIAL	688.5	0.7	19.0	41.4	17.3	7.3

**Stocks With High IVP:**

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
HFCL LTD	69.5	3.4	59.3	89.4	32.2	98.5
INDIAN ENERGY EX	148.7	10.6	48.0	76.3	8.0	97.5
KAYNES TECHNOLOG	3,791.4	-5.2	50.1	62.9	30.3	94.4
BLUE STAR LTD	1,823.6	-1.4	34.6	40.0	20.3	87.3
HINDUSTAN ZINC	643.1	2.3	38.3	54.2	21.8	85.3

**Stocks With Low IVP:**

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
JSW ENERGY LTD	514.9	-0.4	9.3	52.1	9.3	0.0
PIDILITE INDS	1,505.0	0.0	14.1	28.9	11.8	0.7
PHOENIX MILLS	1,950.8	1.4	20.7	64.3	15.0	0.8
TORRENT PHARMA	3,936.8	1.7	15.4	34.6	8.3	1.8
SBI LIFE INSURAN	2,095.8	1.0	17.6	30.2	16.0	2.8

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
CROMPTON	259.9	0.1	13,604	2,616	5.2
FORTIS	945.0	3.2	19,952	3,843	5.2
ABB	5,224.5	1.1	8,891	1,781	5.0
ZYDUSLIFE	931.0	1.0	7,255	1,491	4.9
PIIND	3,275.5	0.4	6,948	1,463	4.7

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
JSWSTEEL	1,176.3	-0.8	14,348	14,980	1.0
CUMMINSIND	4,130.3	-4.2	18,197	17,849	1.0
LTIM	5,982.5	-1.3	6,953	6,444	0.9
TATASTEEL	186.2	0.3	35,508	32,200	0.9
AMBER	6,707.5	-0.1	6,127	5,324	0.9

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
IEX	148.7	10.6	23,910	21,270	100.0
ITC	342.4	-2.1	2,20,451	2,06,530	100.0
IRCTC	671.2	-0.6	23,674	26,742	88.5
NMDC	83.9	0.0	18,922	22,779	83.1
LTF	319.4	-0.3	9,454	11,524	82.0

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
ITC	342.4	-2.1	82,637	82,583	100.0
TRENT	4,047.6	-8.6	32,444	37,886	85.6
PFC	376.2	0.3	21,166	24,848	85.2
HINDALCO	942.2	1.1	20,704	25,435	81.4
IRCTC	671.2	-0.6	11,136	13,935	79.9

### Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
HINDALCO	942.2	1.1	1,38,357	1,72,022	80.4
IEX	148.7	10.6	1,30,191	1,69,025	77.0
NATIONALUM	346.7	4.8	78,199	1,03,232	75.8
ITC	342.4	-2.1	3,59,670	4,98,394	72.2
BDL	1,542.5	0.0	84,346	1,78,975	47.1

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
BDL	1,542.5	0.0	45,560	61,577	74.0
HINDALCO	942.2	1.1	56,165	89,155	63.0
TRENT	4,047.6	-8.6	1,68,626	2,83,186	59.5
IIFL	665.2	3.1	6,222	13,826	45.0
TMPV	368.9	-1.2	43,488	98,498	44.2

### Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
ITC	342.4	-2.1	2,20,451	56,887	3.9
IEX	148.7	10.6	23,910	11,914	2.0
BOSCHLTD	38,960.0	-0.5	9,812	5,016	2.0
CUMMINSIND	4,130.3	-4.2	7,976	4,728	1.7
COALINDIA	427.0	-0.1	34,381	21,036	1.6

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
BOSCHLTD	38,960.0	-0.5	7,354	2,538	2.9
ITC	342.4	-2.1	82,637	31,520	2.6
IEX	148.7	10.6	14,005	8,625	1.6
ONGC	241.9	1.6	14,170	10,322	1.4
DMART	3,663.7	0.5	9,796	7,356	1.3

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
IEX	148.7	10.6	1,30,191	8,213	15.9
DIVISLAB	6,642.5	4.4	98,317	18,614	5.3
HAVELLS	1,501.7	3.5	21,936	4,531	4.8
ITC	342.4	-2.1	3,59,670	84,921	4.2
NATIONALUM	346.7	4.8	78,199	20,139	3.9

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
IEX	148.7	10.6	44,039	4,397	10.0
TRENT	4,047.6	-8.6	1,68,626	31,997	5.3
DABUR	520.4	-0.2	16,223	4,686	3.5
CUMMINSIND	4,130.3	-4.2	17,849	5,961	3.0
DIVISLAB	6,642.5	4.4	21,923	7,484	2.9

## 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	2300	1492161	1.8%	2259	2200	1268754	-2.6%	JIOFIN	300	8039350	0.5%	299	290	7007700	-2.9%
ADANIPORTS	1500	1703825	1.8%	1473	1480	943825	0.5%	JSWSTEEL	1160	863325	-1.4%	1176	1100	2063475	-6.5%
APOLLOHOSP	7300	150875	-0.7%	7348	7300	123750	-0.7%	KOTAKBANK	2200	1562400	2.5%	2146	2100	617200	-2.2%
ASIANPAINT	3000	541750	5.4%	2846	2600	363500	-8.6%	LT	4200	596750	1.4%	4141	4000	301000	-3.4%
AXISBANK	1300	7698750	0.5%	1294	1300	2053125	0.5%	M&M	3800	552200	0.4%	3786	3600	281800	-4.9%
BAJAJ-AUTO	10000	205500	3.5%	9661	9500	104025	-1.7%	MARUTI	18000	122750	4.1%	17292	16000	191200	-7.5%
BAJAJFINSV	2080	841000	1.7%	2045	1900	408500	-7.1%	MAXHEALTH	1100	510825	4.6%	1052	1040	395850	-1.1%
BAJFINANCE	1000	4999500	2.3%	977	1000	2930250	2.3%	NESTLEIND	1340	619000	1.5%	1320	1300	675000	-1.5%
BEL	420	7541100	1.7%	413	400	5662950	-3.2%	NTPC	360	8284500	2.6%	351	330	2673000	-5.9%
BHARTIARTL	2200	1426425	4.5%	2105	2100	810825	-0.3%	ONGC	240	13277250	-0.8%	242	240	3978000	-0.8%
CIPLA	1600	378000	4.5%	1531	1500	399750	-2.0%	POWERGRID	280	5266800	4.3%	269	250	2703700	-6.9%
COALINDIA	430	6462450	0.7%	427	400	3075300	-6.3%	RELIANCE	1600	16129000	6.1%	1508	1500	3687500	-0.5%
DRREDDY	1300	1109375	3.5%	1256	1250	669375	-0.5%	SBILIFE	2140	1203750	2.1%	2096	2100	441000	0.2%
EICHERMOT	8100	166500	7.7%	7523	7000	169300	-6.9%	SBIN	1050	5295750	3.1%	1019	1000	3188250	-1.9%
ETERNAL	300	8203775	7.5%	279	280	5179800	0.3%	SHIRIRAMFIN	1000	2083950	-0.3%	1003	900	1687125	-10.2%
GRASIM	2900	265250	1.2%	2865	2740	237250	-4.4%	SUNPHARMA	1760	1445150	0.0%	1760	1620	371700	-8.0%
HCLTECH	1700	963550	5.2%	1616	1600	336350	-1.0%	TATACONSUM	1300	545050	7.4%	1210	1080	1052150	-10.8%
HDFCBANK	1000	10683750	3.9%	962	940	3333550	-2.3%	TMPV	400	6708800	8.4%	369	360	4085600	-2.4%
HDFCLIFE	780	2062500	0.3%	778	750	1279300	-3.6%	TATASTEEL	200	13321000	7.4%	186	170	13057000	-8.7%
HINDALCO	1000	2014600	6.1%	942	900	1447600	-4.5%	TCS	3300	2389275	1.4%	3256	3200	769125	-1.7%
HINDUNILVR	2340	830100	-3.5%	2425	2300	441300	-5.1%	TECHM	1800	696600	12.4%	1602	1600	432600	-0.1%
ICICIBANK	1400	6558300	-0.8%	1411	1400	4207000	-0.8%	TITAN	4100	534100	-0.3%	4112	4000	443100	-2.7%
INDIGO	5100	709500	1.9%	5003	5000	810000	0.0%	TRENT	4200	666300	3.8%	4048	4000	398100	-1.2%
INFY	1660	3090800	3.0%	1612	1620	1502400	0.5%	ULTRACEMCO	13000	59950	6.5%	12204	11500	51300	-5.8%
ITC	400	43297600	16.8%	342	350	15894400	2.2%	WIPRO	265	4863000	-0.2%	266	250	3402000	-5.9%

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

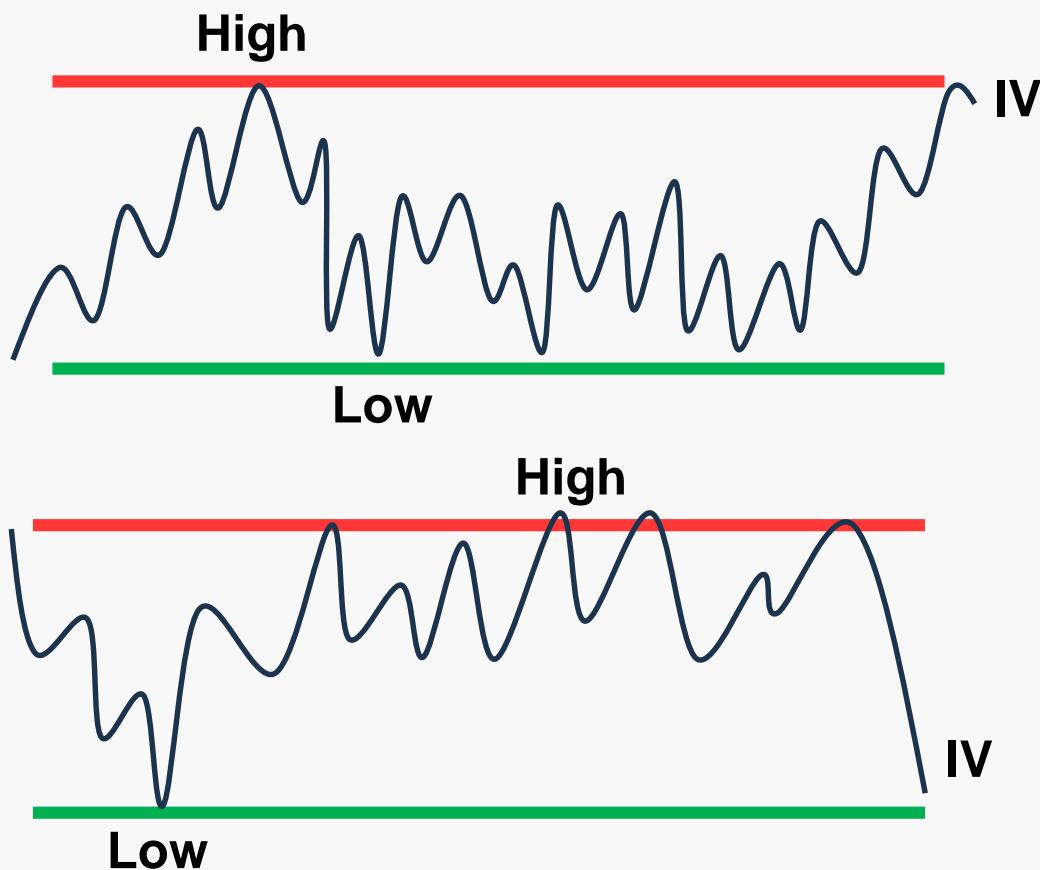
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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 (DIIs), 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

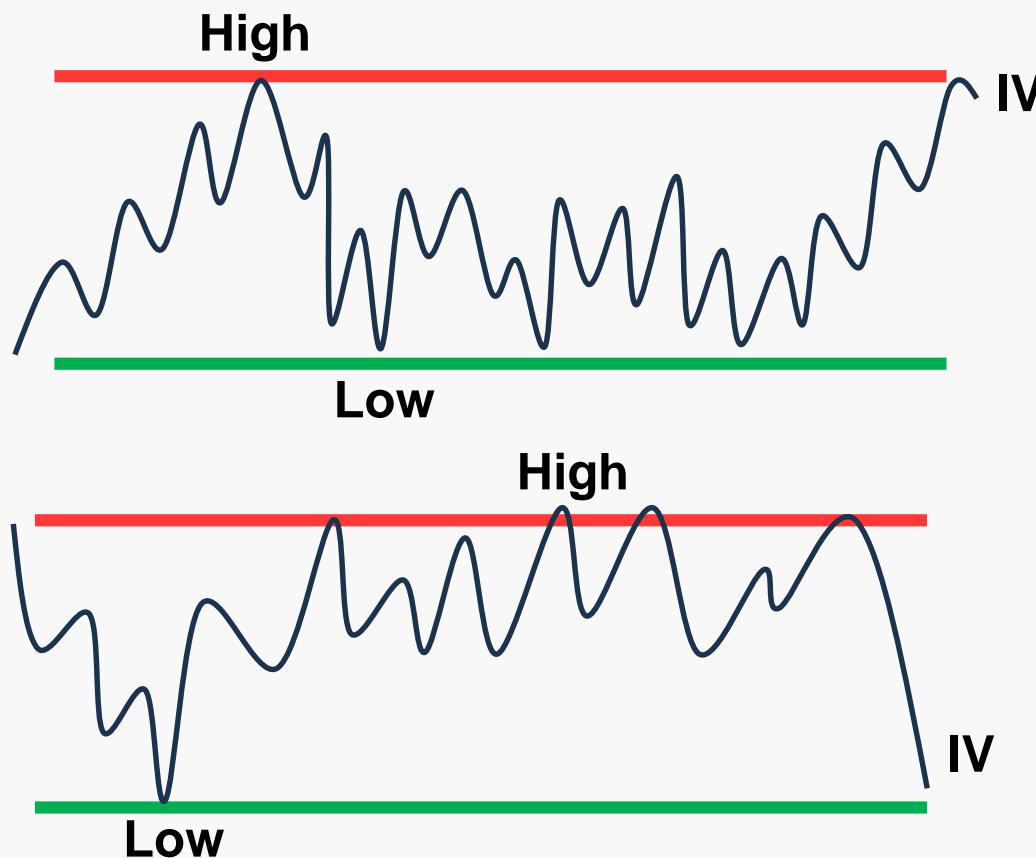
- **Strike concentration:** Visual representation of how many calls and puts are outstanding at each strike in the vicinity of the current underlying price. The strike with the highest call open interest is considered as resistance, while the put strike with the highest number of outstanding positions 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 Direct is the brand under Axis Securities Limited, which is a 100% subsidiary of Axis Bank Limited. 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 the 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: Axis Securities Limited, 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 at [helpdesk@axisdirect.in](mailto:helpdesk@axisdirect.in).

We hereby declare that our activities have neither been suspended nor have we defaulted with any stock exchange authority with whom we are registered in the last five years. However, SEBI, Exchanges, Clearing Corporations and Depositories, etc. have conducted the routine inspection and based on their observations have issued advice/warning/show cause notices/deficiency letters/ or levied penalty or imposed charges for certain deviations observed in inspections or in the 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 in time.

Investments in the 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 a 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 the USA or any jurisdiction where such an offer or solicitation would be illegal.

Subject company(ies) may have been clients during the 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 notice. The report and information contained herein are 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 for 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 the 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.

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 are solely for informational purposes 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/or 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 the needs of the 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 the 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 a 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 services 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 minimise conflict in the preparation of research reports. Axis Securities or its associates, or its analysts, did not receive any compensation or other benefits from the companies mentioned in the report or a third party in connection with the 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 from 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 the 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 per cent or more or other material conflicts 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 conclusions 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 centre 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 positions in the above-mentioned scrip(s) and therefore may be considered as interested. This should not be construed as an invitation or solicitation to do business with Axis Securities. Axis Securities is also a Portfolio Manager. Portfolio Management Team (PMS) takes its investment decisions independently of the PCG research, and accordingly, PMS may have positions contrary to the PCG research recommendation.

This research report is issued in India by Axis Securities Limited in accordance with the Securities and Exchange Board of India (Research Analysts) Regulations, 2014. It is intended solely for persons residing in India. The report is not directed at or intended for distribution to, or use by, any person or entity resident in the United States of America, Canada, or in any jurisdiction where such distribution, publication, availability, or use would be contrary to applicable securities laws, including the U.S. Securities Exchange Act of 1934, regulations of the U.S. Securities and Exchange Commission (SEC), and regulations of the Canadian Securities Administrators (CSA).

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