



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	25,168	0.2%▼
Open Interest (OI)	1,85,40,825	4.4%▲
Change in OI (abs)	1,85,40,825	7,84,725▲
Premium / Discount (Abs)	85	12▲
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	57,003	0.2%▲
Open interest (OI)	24,24,870	2.1%▲
Change in OI (abs)	24,24,870	49,035▲
Premium / Discount (Abs)	163	74▲
Inference	Long Build Up	

Volatility Insights

	Value	Change
India VIX Index	11.98	0.16▲
Nifty ATM IV (%)	10.85	0.1▲
Bank Nifty ATM IV (%)	12.24	0.6▲
PCR (Nifty)	0.72	0.04▼
PCR (Bank Nifty)	0.86	0.02▼

The FII Long Ratio in Index Futures **drop** to 18.3%, **down** from 20.2% in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PPLPHARMA	1,34,95,000	32.2%	208.72	3.6%
MANKIND	14,04,900	12.1%	2696	4.5%
BOSCHLTD	3,29,900	12.0%	37425	3.6%
PGEL	43,84,800	10.1%	787.3	2.2%
PAGEIND	2,55,435	9.9%	47985	1.2%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ANGELONE	32,19,750	10.0%	2657	-0.5%
BDL	37,29,050	5.4%	1832	-1.7%
INFY	6,70,29,600	4.1%	1571.4	-1.5%
IDFCFIRSTB	37,28,08,625	4.0%	74.47	-1.2%
JINDALSTEL	1,58,69,375	4.0%	937.35	-0.5%

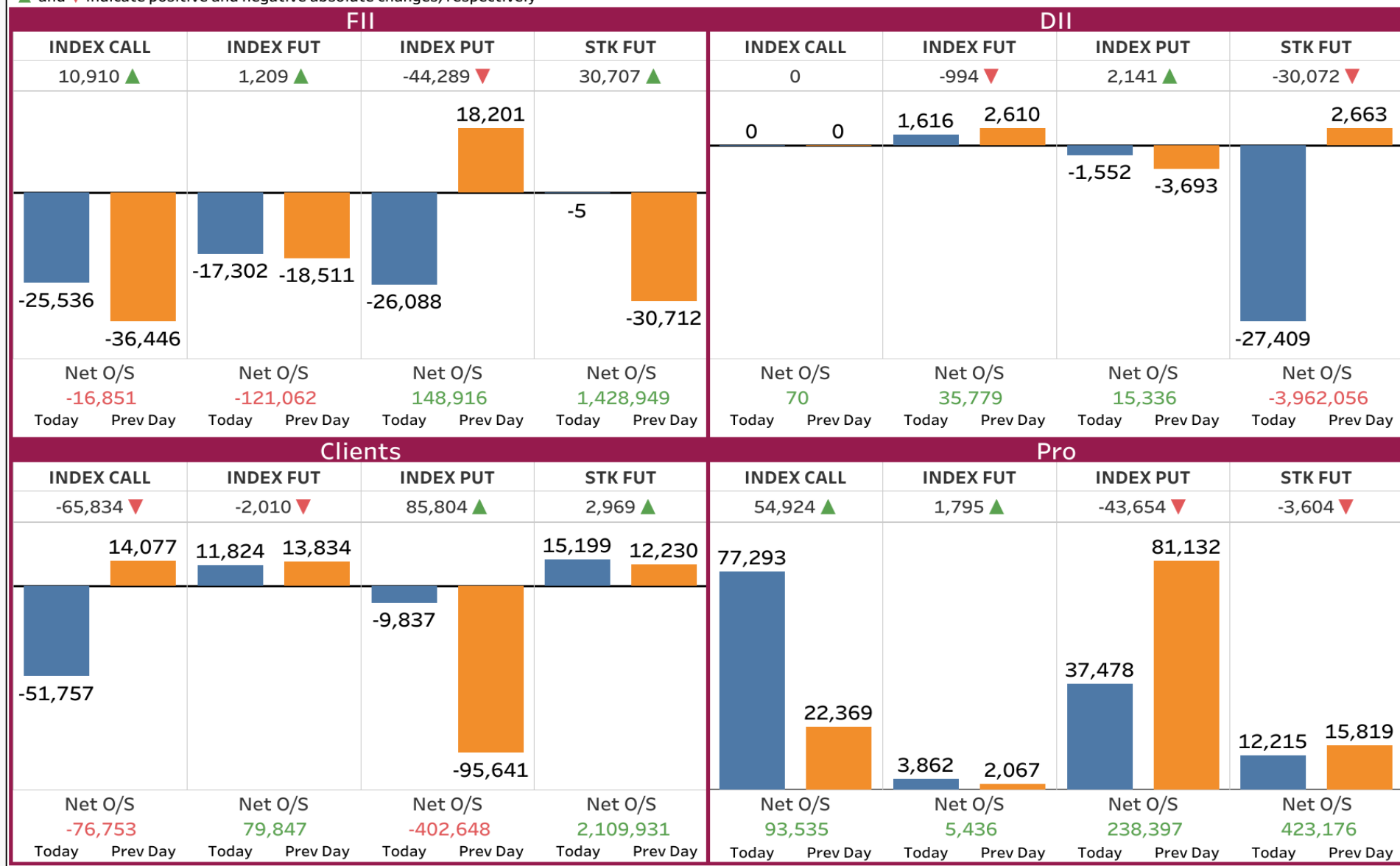
Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
GLENMARK	1,01,28,000	-8.7%	2220.9	1.8%
PEL	76,62,000	-5.5%	1295.9	6.3%
BSE	1,49,62,125	-4.8%	2463.1	4.1%
IIFL	1,60,24,800	-4.2%	525.25	0.9%
OFSS	11,08,800	-3.0%	8747	1.2%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MGL	24,59,200	-6.6%	1477.4	-0.5%
BALKRISIND	18,12,300	-4.1%	2653.2	-0.1%
RBLBANK	7,54,95,150	-2.3%	263.05	-0.3%
HCLTECH	1,60,80,750	-2.1%	1612.4	-0.8%
MPHASIS	49,00,775	-1.6%	2836	-0.2%

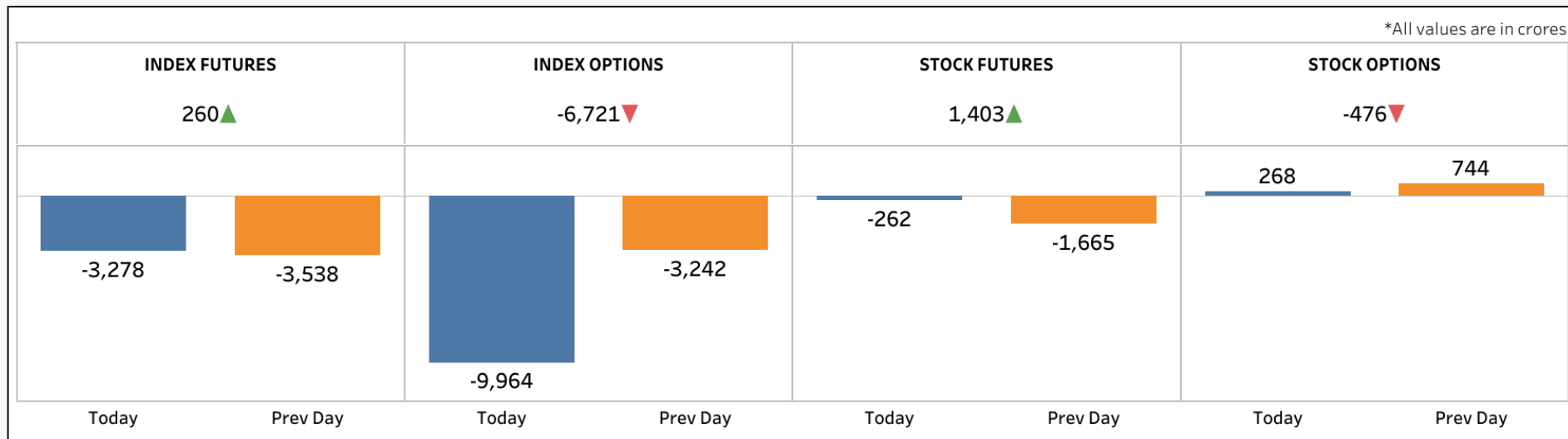
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

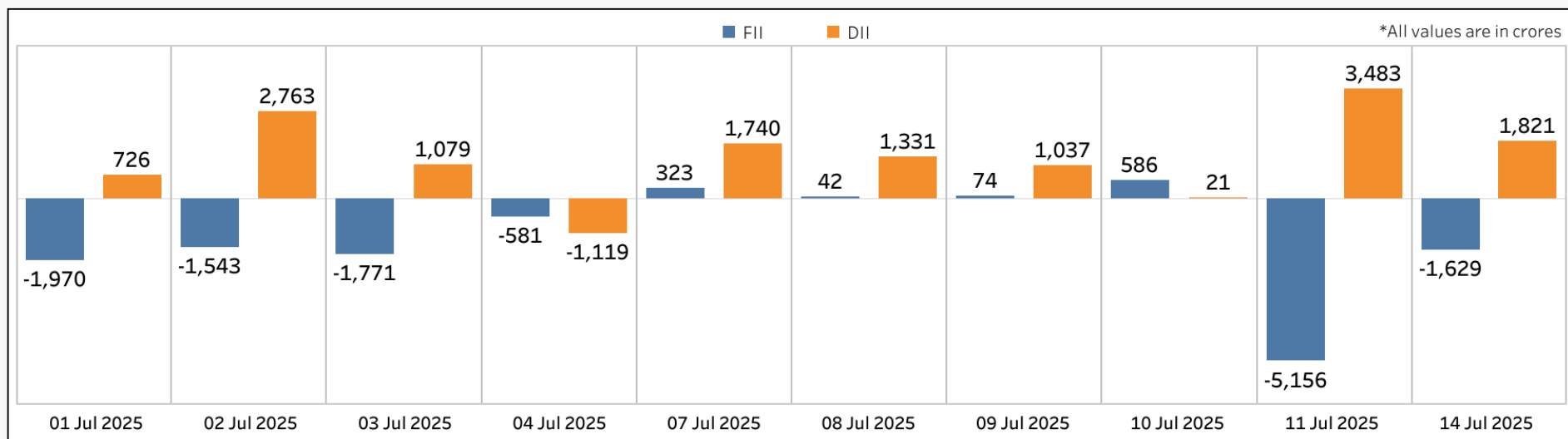
▲ and ▼ indicate positive and negative absolute changes, respectively



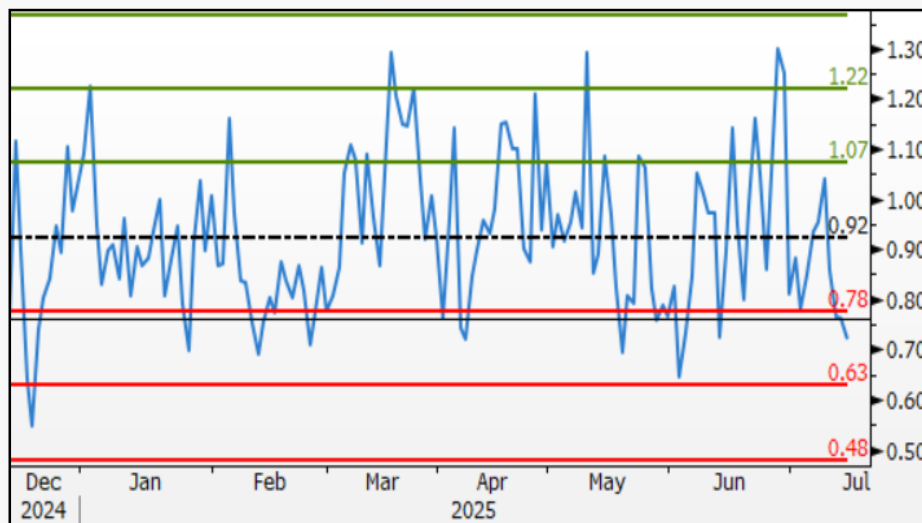
Daily Net Open Interest Change



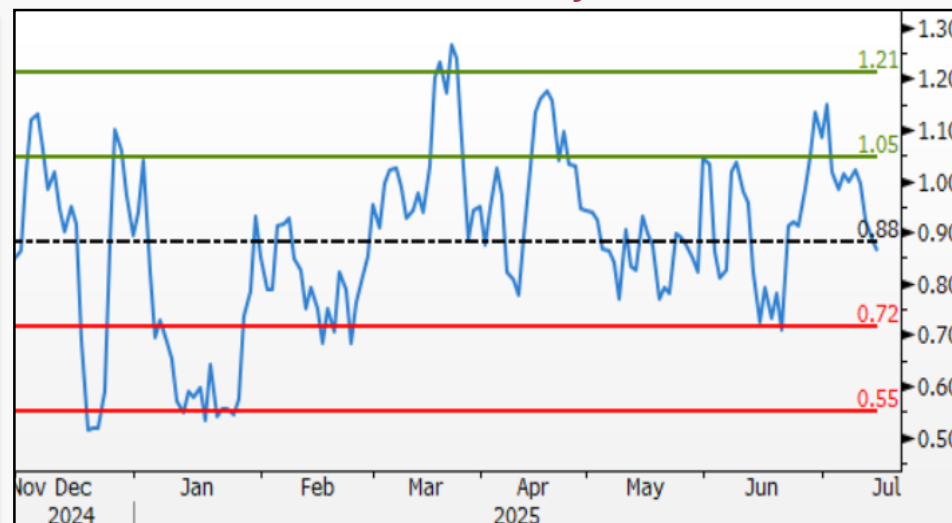
DII and FII Daily Cash Market Flows



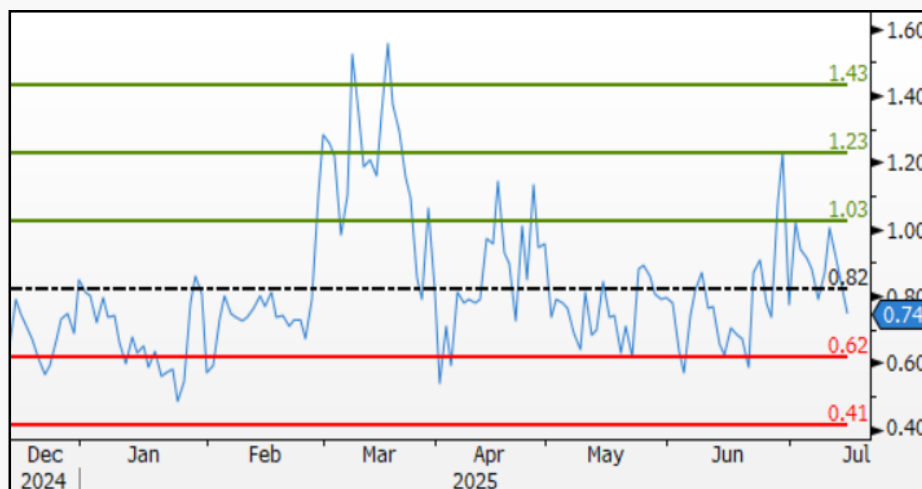
Nifty



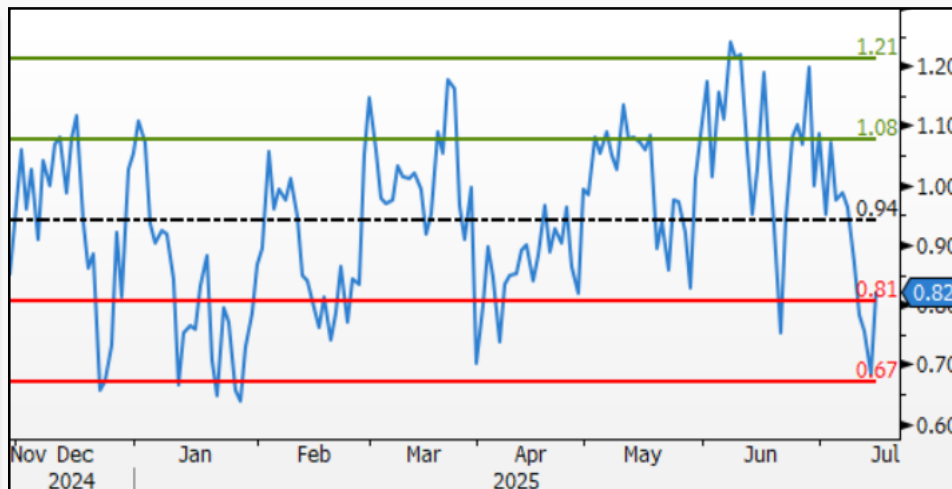
Bank Nifty



Fin Nifty

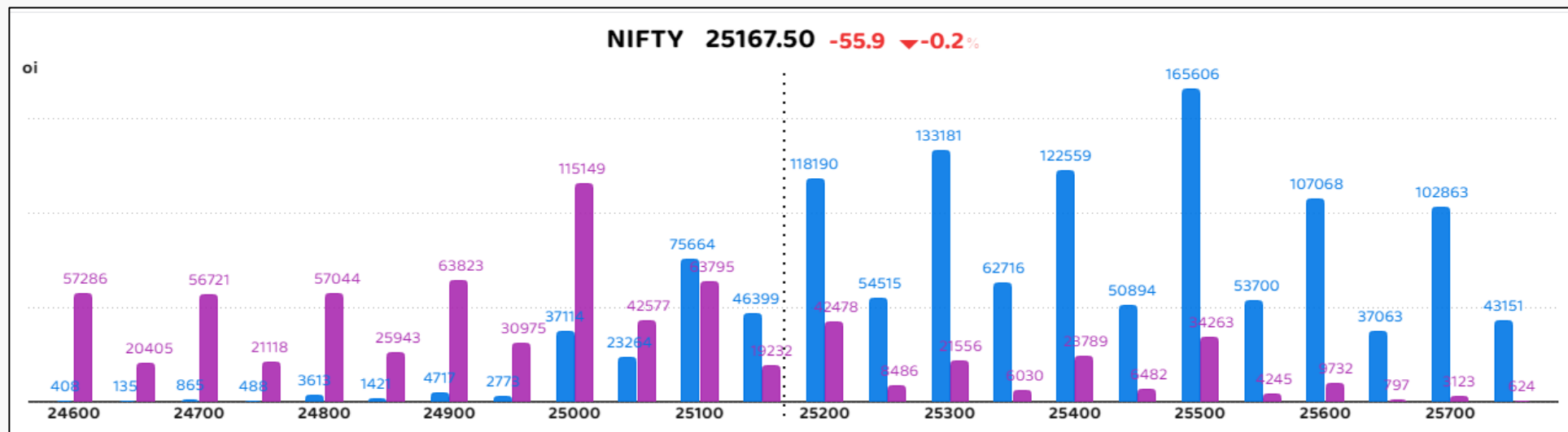


Midcap Select Nifty



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

Call  Put 



For the Nifty, the 25,500 Call and the 25,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 57,000 Call and the 56,000 Put saw the most amount of open interest.

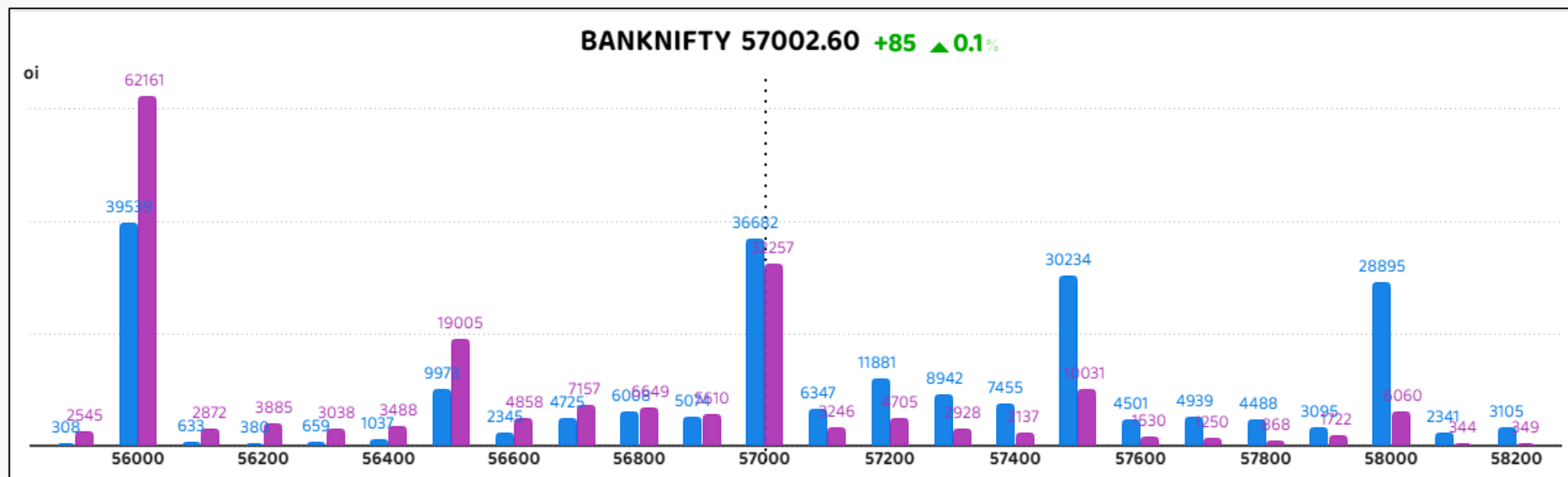
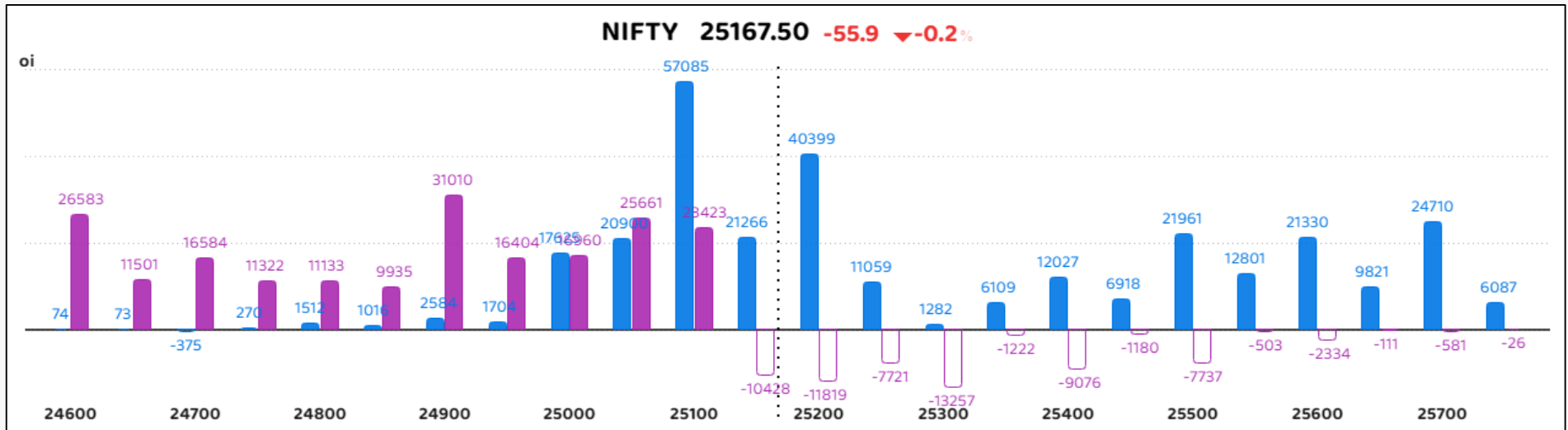


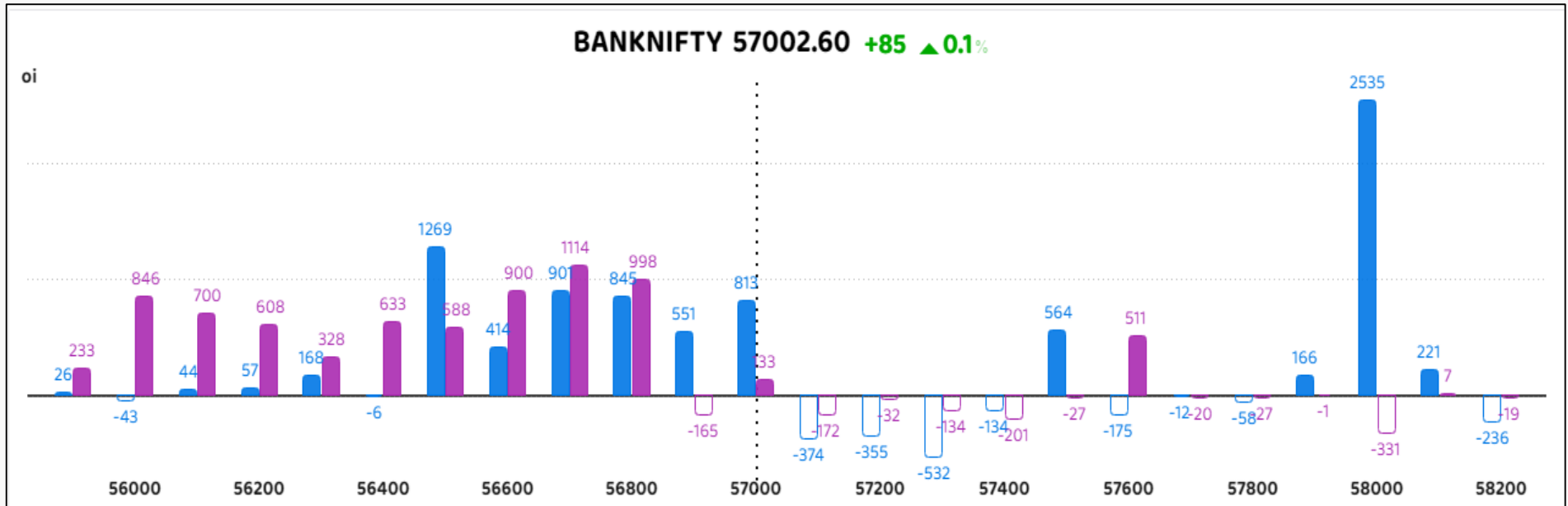
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,100 Call and the 24,900 Put



For the Bank Nifty, the biggest open interest changes were seen at the 58,000 Call & the 56,700 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
MANKIND PHARMA	2696.5	4.6	39.5	39.5	25.0	100.0
PIRAMAL PHARMA	207.88	3.4	38.9	39.1	31.0	97.5
SBI CARDS & PAYMENTS	903.5	-1.1	33.5	36.9	4.6	89.3
BOSCH LTD	37845	3.6	31.1	34.9	3.3	87.9
DIXON TECHNOLOGIES	15898	0.7	38.2	53.0	1.8	71.2

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
PIDILITE INDS	2964.4	-1.2	11.8	31.2	11.8	0.0
ZYDUS LIFESCIENCES	968.45	-1.1	16.5	41.7	16.5	0.0
RBL BANK LTD	263.38	-0.3	10.6	76.5	10.6	0.0
NBCC INDIA LTD	113.03	0.1	34.0	65.4	33.6	1.3
ADANI TOTAL GAS	646.7	0.3	29.5	78.9	28.9	1.3

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MANKIND PHARMA	2696.5	4.6	39.5	39.5	25.0	100.0
SBI CARDS & PAYMENTS	903.5	-1.1	33.5	36.9	4.6	98.2
BOSCH LTD	37845	3.6	31.1	34.9	3.3	98.1
PIRAMAL PHARMA	207.88	3.4	38.9	39.1	31.0	94.4
ICICI LOMBARD	2019.7	0.4	29.5	38.2	9.9	92.0

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
PIDILITE INDS	2964.4	-1.2	11.8	31.2	11.8	0.0
ZYDUS LIFESCIENCES	968.45	-1.1	16.5	41.7	16.5	0.0
RBL BANK LTD	263.38	-0.3	10.6	76.5	10.6	0.0
BPCL	344.4	-0.1	23.3	69.0	8.7	0.8
LIC HOUSING FINANCE	606.9	0.4	23.2	41.9	22.8	1.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
TORRENT PHARMA	3404.9	2.7	9994	1280	7.8
ADITYA BIRLA FASHION	76.6	-0.3	8292	1222	6.8
CESC LTD	180.07	3.0	12461	1837	6.8
PIRAMAL PHARMA	207.88	3.4	7896	1365	5.8
MANKIND PHARMA	2696.5	4.6	53605	9508	5.6

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
MPHASIS LTD	2829.5	-0.3	1407	1785	1.3
POONAWALLA FINCORP	454.55	-0.1	1456	1713	1.2
AU SMALL FINANCE	804.95	-2.0	7560	7719	1.0
PI INDUSTRIES	4050.1	0.1	1587	1557	1.0
LTIMINDTREE LTD	5158	-0.9	5381	5232	1.0

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
TRENT LTD	5314.5	-0.9	86784	86784	100.0
BLUE STAR LTD	1828.5	1.6	3617	3617	100.0
UNO MINDA LTD	1077.5	0.4	2917	2959	98.6
KAYNES TECHNOLOGY	6023	0.4	5284	5423	97.4
PHOENIX MILLS	1510.9	1.5	3767	4058	92.8

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
TRENT LTD	5314.5	-0.9	35213	35213	100.0
MANKIND PHARMA	2696.5	4.6	3580	3580	100.0
BOSCH LTD	37845	3.6	10640	10640	100.0
LAURUS LABS LTD	823.85	4.3	10831	10831	100.0
BLUE STAR LTD	1828.5	1.6	4485	4512	99.4

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
PIRAMAL PHARMA	207.88	3.4	7896	7896	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
AVENUE SUPERMART	4011.30	-1.3	77585	83828	92.6

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
TATA CONSULTANCY	3222.7	-1.3	145160	65987	2.2
AVENUE SUPERMART	4011.3	-1.3	23885	10981	2.2
PIRAMAL ENTERPRISES	1293.3	6.2	5182	2680	1.9
TRENT LTD	5314.5	-0.9	86784	46225	1.9
CESC LTD	180.07	3.0	5279	2900	1.8

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
BOSCH LTD	37845	3.6	10640	3688	2.9
TATA ELXSI LTD	6179	1.9	10135	3770	2.7
PIRAMAL ENTERPRISES	1293.3	6.2	4076	1811	2.3
MANKIND PHARMA	2696.5	4.6	3580	1686	2.1
GLENMARK PHARMA	2219.2	1.7	20944	10675	2.0

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
PIRAMAL ENTERPRISES	1293.3	6.2	55329	6696	8.3
PIRAMAL PHARMA	207.88	3.4	7896	1903	4.2
CESC LTD	180.07	3.0	12461	3699	3.4
MANKIND PHARMA	2696.5	4.6	53605	16007	3.3
LAURUS LABS LTD	823.85	4.3	29157	8739	3.3

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
PIRAMAL ENTERPRISES	1293.3	6.2	18756	2360	7.9
AVENUE SUPERMART	4011.3	-1.3	77585	18178	4.3
DIVI LABS LTD	6778.5	-0.8	28638	8999	3.2
HCL TECH LTD	1619.8	-1.1	40704	13047	3.1
TATA ELXSI LTD	6179	1.9	25342	8260	3.1

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	1532700	4.6%	2581	2700	1797300	4.6%	ITC	420	12566400	0.1%	419	420	5556800	0.1%
ADANIPTS	1500	1577000	4.7%	1433	1400	1332850	-2.3%	JIOFIN	330	9548050	3.4%	319	300	4953800	-6.0%
APOLLOHOSP	7600	298625	5.3%	7220	7000	175750	-3.0%	JSWSTEEL	1180	1383075	13.6%	1039	1000	731025	-3.7%
ASIANPAINT	2500	1761250	4.1%	2402	2300	438000	-4.2%	KOTAKBANK	2300	800400	4.4%	2204	2100	741600	-4.7%
AXISBANK	1200	7718125	2.3%	1173	1200	1719375	2.3%	LT	3700	1110725	5.8%	3496	3500	602000	0.1%
BAJAJ-AUTO	9000	217650	11.3%	8088	8000	119850	-1.1%	M&M	3200	1550000	3.5%	3092	3200	414600	3.5%
BAJAJFINSV	2100	1257000	4.8%	2004	1980	477000	-1.2%	MARUTI	12800	567950	2.3%	12514	12600	91850	0.7%
BAJFINANCE	950	2940000	3.4%	919	900	1853250	-2.1%	NESTLEIND	2500	414750	4.5%	2393	2400	204250	0.3%
BEL	430	11129250	5.6%	407	400	6435300	-1.8%	NTPC	345	32713500	0.8%	342	345	6039000	0.8%
BHARTIARTL	2040	3221925	6.2%	1921	1900	862600	-1.1%	ONGC	250	20988000	2.4%	244	240	2506500	-1.7%
CIPLA	1600	879750	7.8%	1484	1340	393750	-9.7%	POWERGRID	300	5014100	0.6%	298	300	2017800	0.6%
COALINDIA	400	8788500	4.2%	384	400	3406050	4.2%	RELIANCE	1550	6514000	4.5%	1484	1500	2724000	1.1%
DRREDDY	1300	1473750	4.0%	1251	1100	803125	-12.0%	SBILIFE	1860	1159500	0.5%	1851	1820	610500	-1.7%
EICHERMOT	5800	269150	4.7%	5541	5800	116375	4.7%	SBIN	820	19615500	1.4%	809	800	5060250	-1.1%
ETERNAL	290	8577225	7.2%	271	250	4166150	-7.6%	SHRIRAMFIN	700	1907400	4.5%	670	700	654225	4.5%
GRASIM	2900	259250	4.2%	2784	2600	125500	-6.6%	SUNPHARMA	1720	1995350	2.2%	1683	1500	493850	-10.9%
HCLTECH	1700	1220450	5.0%	1620	1600	1053150	-1.2%	TATACONSUM	1230	941600	14.8%	1072	980	567600	-8.6%
HDFCBANK	2020	5506050	1.9%	1983	2000	1769900	0.9%	TATAMOTORS	700	8083200	3.8%	675	700	3599200	3.8%
HDFCLIFE	820	3069000	7.2%	765	740	1010900	-3.2%	TATASTEEL	170	20586500	6.0%	160	160	9168500	-0.3%
HEROMOTOCO	4300	677550	1.1%	4252	4300	228450	1.1%	TCS	3500	4131575	8.6%	3223	3200	1257550	-0.7%
HINDALCO	700	3638600	5.0%	667	670	1176000	0.5%	TECHM	1670	1101000	5.9%	1577	1390	354600	-11.8%
HINDUNILVR	2560	1133100	1.7%	2517	2400	737100	-4.6%	TITAN	3500	1108100	2.8%	3405	3400	451325	-0.1%
ICICIBANK	1450	2650200	1.9%	1423	1400	1800400	-1.6%	TRENT	6000	1109800	12.9%	5315	5500	382900	3.5%
INDUSINDBK	900	2865800	3.7%	868	800	976500	-7.8%	ULTRACEMCO	13800	118700	10.3%	12516	11000	61900	-12.1%
INFY	1600	3577200	1.9%	1570	1600	1668400	1.9%	WIPRO	270	6363000	6.2%	254	230	2787000	-9.5%

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), 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, 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.

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