



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	24,712	0.6%▲
Open Interest (OI)	1,83,00,075	0.2%▼
Change in OI (abs)	1,83,00,075	38,550▼
Premium / Discount (Abs)	93	25▲
Inference	Short Covering	

Bank Nifty Futures

	Value	Change
Most recent settlement	55,433	0.3%▲
Open interest (OI)	31,83,845	1.7%▲
Change in OI (abs)	31,83,845	52,710▲
Premium / Discount (Abs)	252	8▲
Inference	Long Build Up	

Volatility Insights

	Value	Change
India VIX Index	12.14	0.09▼
Nifty ATM IV (%)	10.30	0.3▼
Bank Nifty ATM IV (%)	11.26	0.4▼
PCR (Nifty)	1.08	0.30▲
PCR (Bank Nifty)	0.75	0.01▼

The FII Long Ratio in Index Futures **jump** to 8.7 %, **up** from 7.9 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NUVAMA	1,61,925	20.2%	6961	1.0%
APOLLOHOSP	35,35,250	18.8%	7824	7.9%
NYKAA	5,02,75,000	12.3%	213.55	4.0%
ALKEM	15,56,250	9.5%	5411	4.6%
ANGELONE	25,08,000	8.1%	2641.3	5.0%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
LICI	70,79,100	14.4%	890.1	-3.0%
MUTHOOTFIN	37,34,225	12.0%	2521.4	-0.6%
OIL	1,10,67,000	11.5%	406	-4.9%
COLPAL	60,51,150	5.0%	2180.6	-1.1%
RVNL	1,72,59,000	4.2%	324.3	-0.8%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PAYTM	2,59,72,400	-8.8%	1159.3	3.3%
ASTRAL	82,38,625	-7.8%	1295.7	1.9%
BSE	1,08,82,500	-6.9%	2507.2	5.6%
JSL	42,50,850	-5.8%	723.25	1.5%
AUBANK	2,29,08,000	-3.0%	740.45	2.2%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
INDIANB	71,97,000	-4.6%	671.4	0.0%
PGEL	1,37,51,500	-3.4%	487.65	-5.5%
PAGEIND	3,07,080	-1.5%	43540	-0.5%
PIIND	19,58,075	-1.5%	3788.7	-1.1%
AMBUJACEM	2,81,24,250	-1.2%	581.3	-1.1%

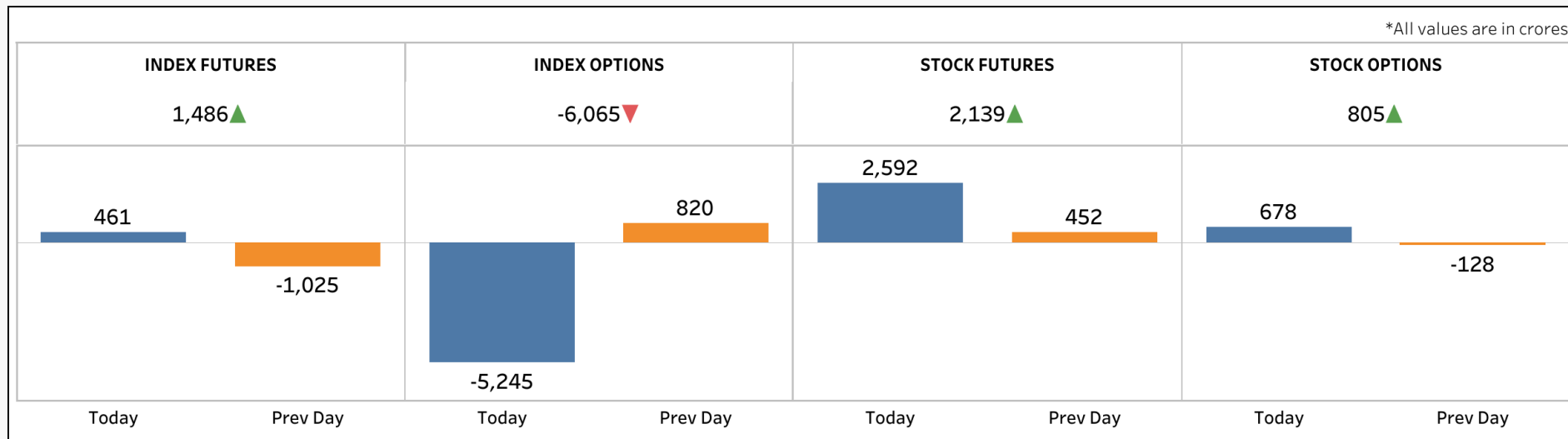
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

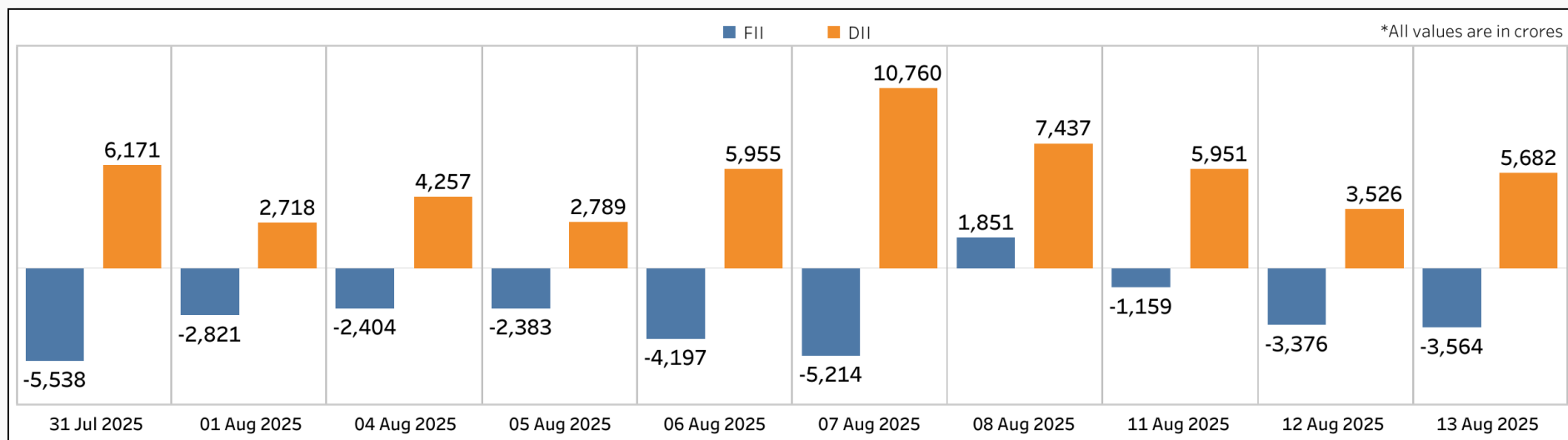
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
56,131 ▲	8,032 ▲	-84,385 ▼	25,418 ▲	1,000 ▲	-332 ▼	-1,455 ▼	-45,498 ▼
35,416			32,015	1,000			9,419
	2,501	22,862	6,597	0	-1,067	0	
-20,715	-5,531				-735	-1,455	
		-61,523					-36,079
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-51,745	-182,757	190,624	1,335,185	1,070	37,475	33,439	-4,024,791
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-224,696 ▼	-6,043 ▼	184,271 ▲	-1,730 ▼	167,565 ▲	-1,657 ▼	-98,431 ▼	21,810 ▲
180,299				7,981		47,435	3,378
	4,934	113,974	686		1,332		
-44,397	-1,109				-325	-50,996	-18,432
		-70,297					
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
50,030	126,179	-365,928	2,234,926	645	19,103	141,866	454,680
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day

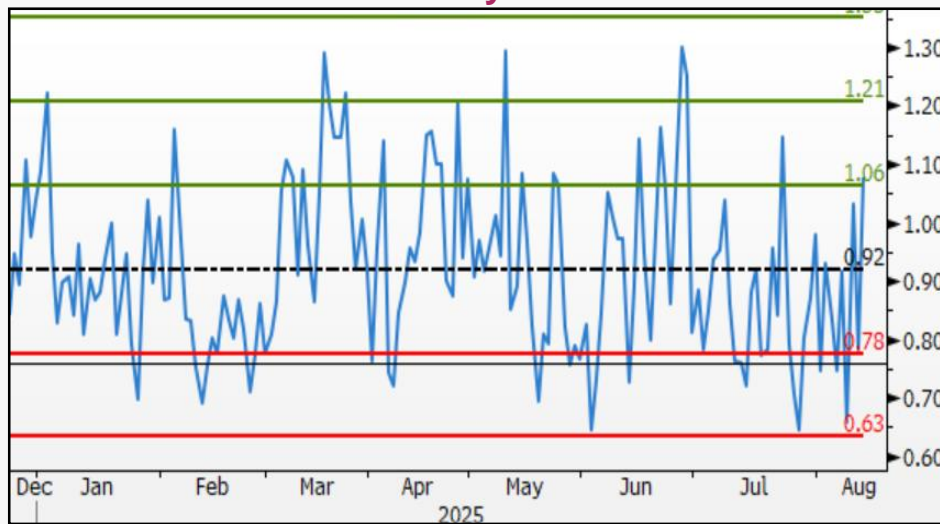
Daily Net Open Interest Change



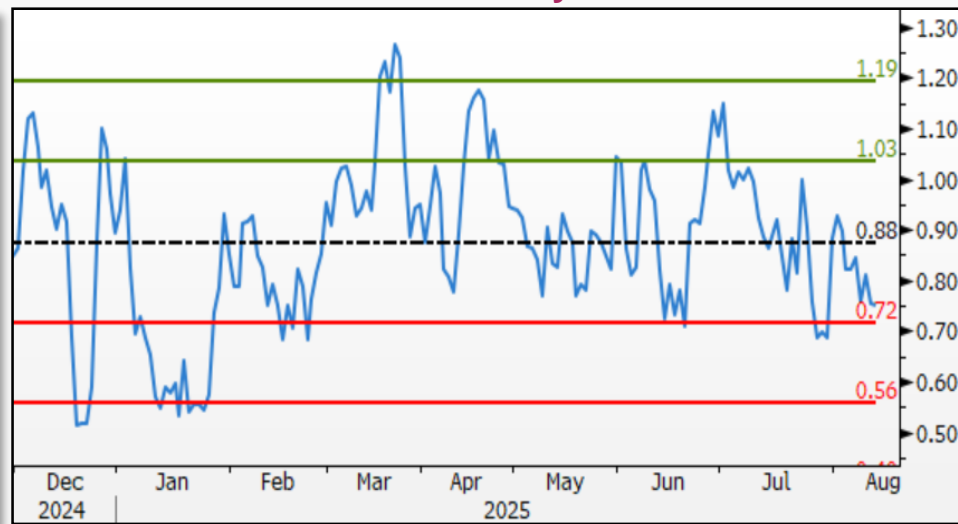
DII and FII Daily Cash Market Flows



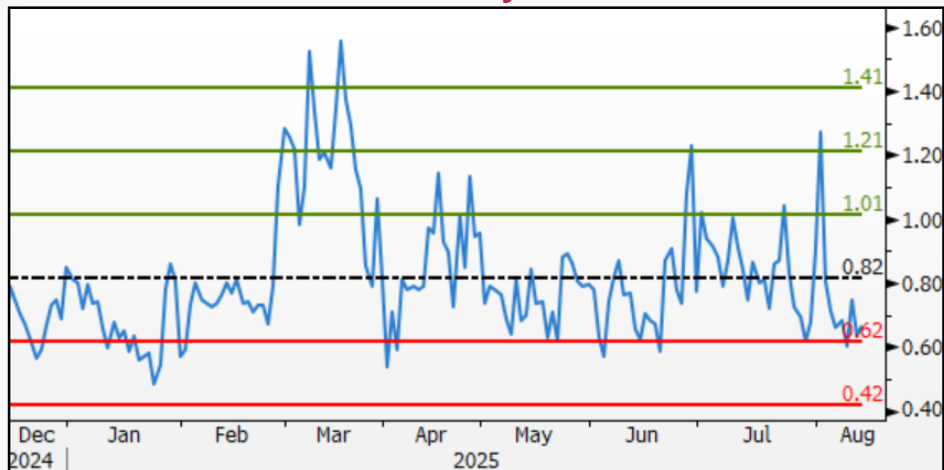
Nifty



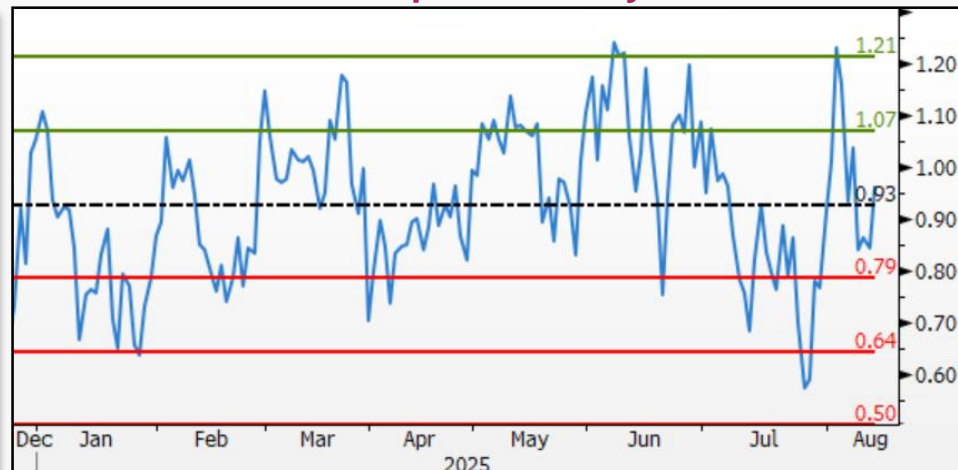
Bank Nifty



Fin Nifty

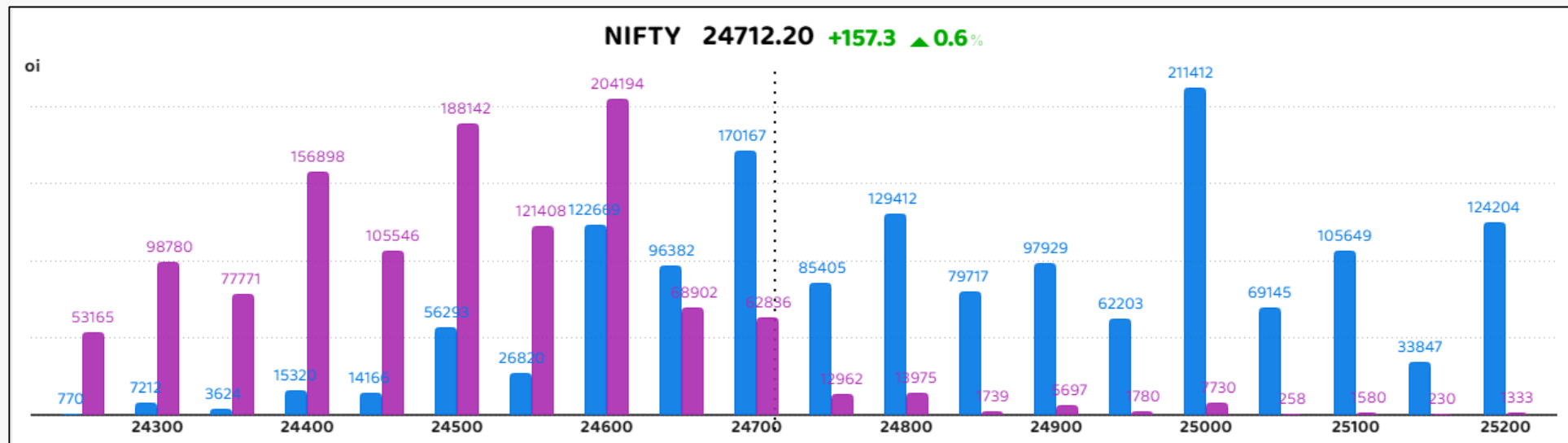


Midcap Select Nifty



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

Call  Put 



For the Nifty, the 25,000 Call and the 24,600 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 56,000 Call and the 55,000 Put saw the most amount of open interest.

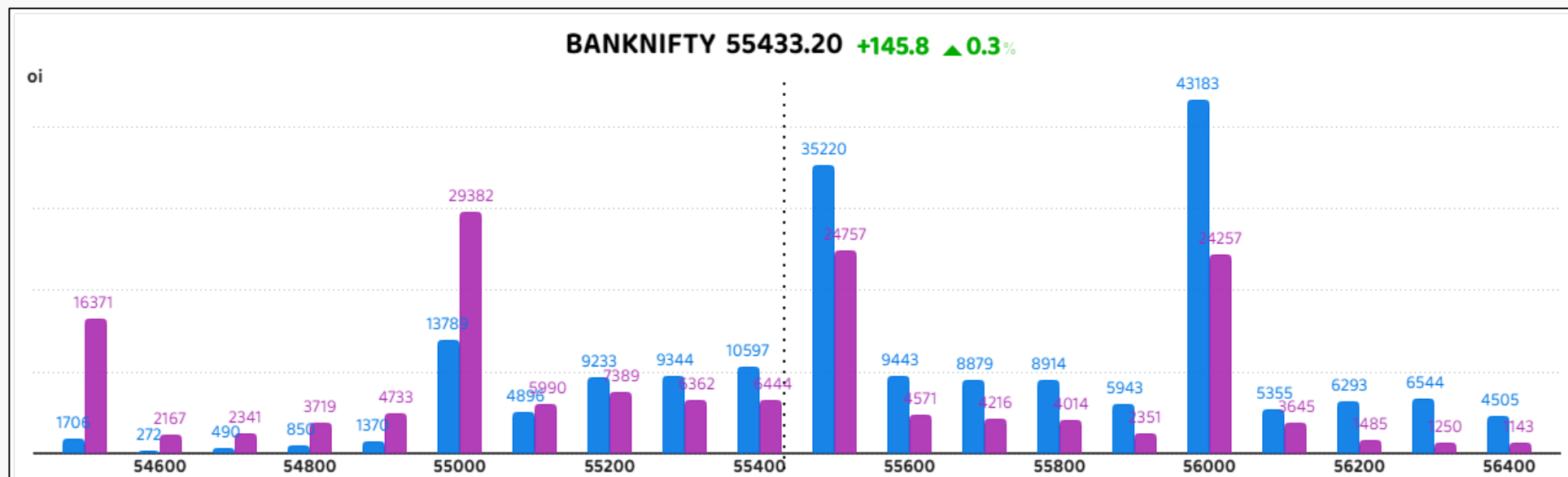
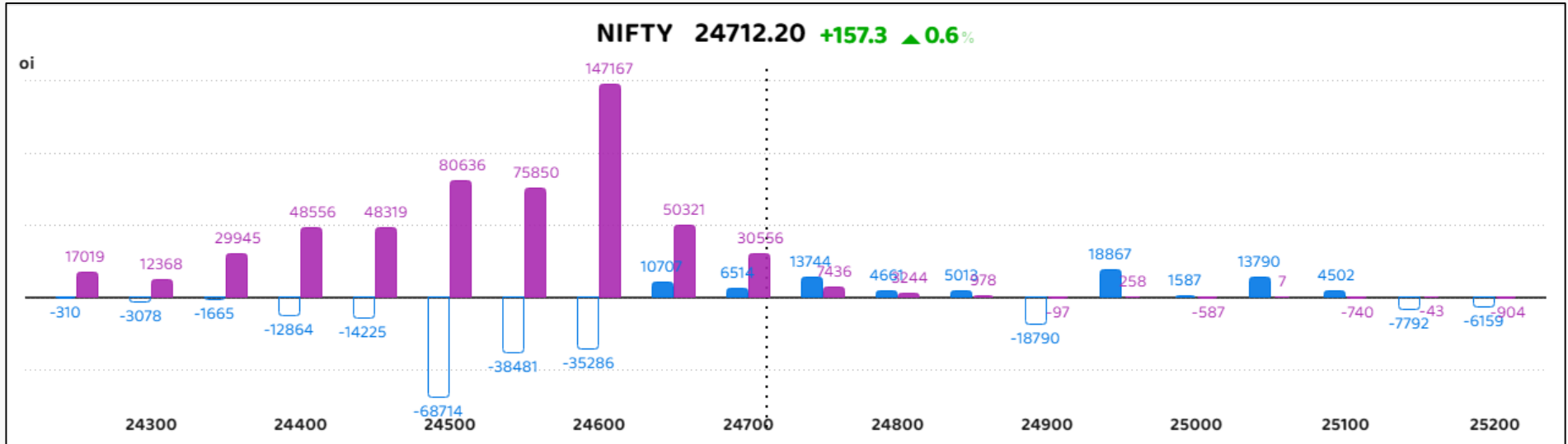


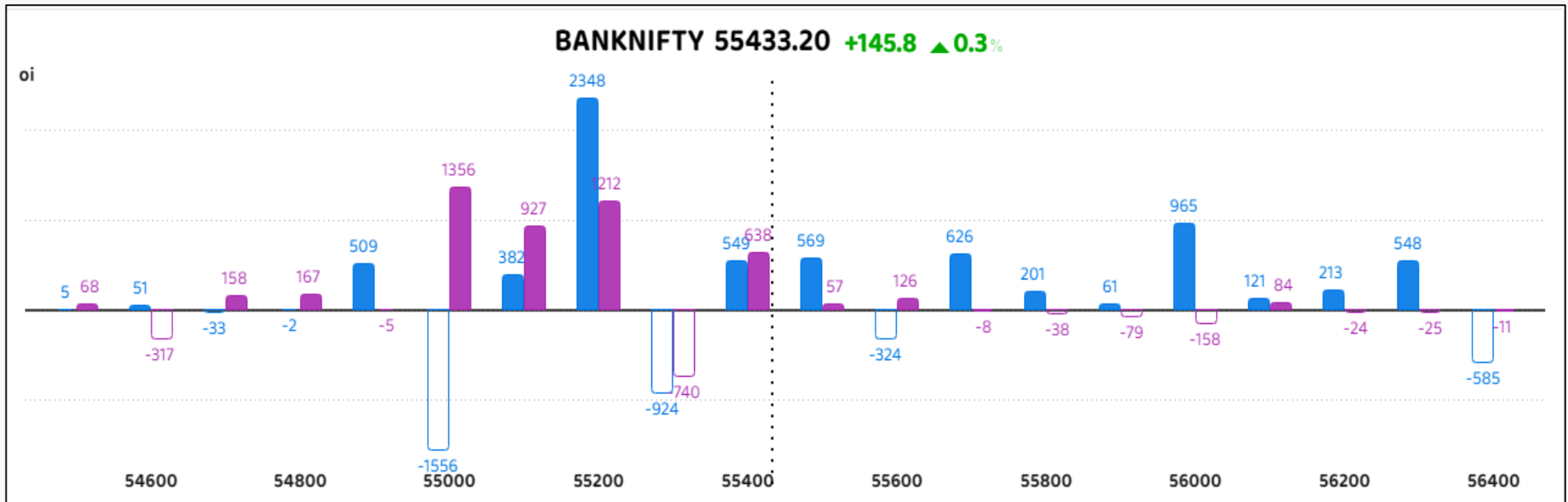
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,500 Call and the 24,600 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,000 Call & the 55,200 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
BOSCH LTD	38660	0.1	29.2	36.2	2.1	79.5
RBL BANK LTD	253.8	0.2	62.9	76.5	10.6	79.3
DALMIA BHARAT	2270.8	0.8	32.3	38.6	17.5	70.0
ASTRAL LTD	1292.1	1.8	27.6	40.4	2.9	65.9
PI INDUSTRIES	3772.7	-1.7	29.9	40.3	14.3	60.2

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
NTPC LTD	339.95	0.0	16.7	116.6	16.7	0.0
HINDUSTAN ZINC	430.2	1.6	23.1	54.2	23.1	0.0
POWER FINANCE	417.75	0.5	25.8	51.5	25.8	0.0
INDIAN HOTELS	769.8	3.0	22.3	46.4	22.3	0.0
POLYCAB INDIA	6966	2.4	2.8	53.7	2.8	0.0

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
RBL BANK LTD	253.8	0.2	62.9	76.5	10.6	97.4
DALMIA BHARAT	2270.8	0.8	32.3	38.6	17.5	93.1
MUTHOOT FINANCE	2509.9	-0.9	35.8	49.6	21.8	90.9
BOSCH LTD	38660	0.1	29.2	36.2	2.1	87.6
PG ELECTROPLAST	486.1	-5.6	49.8	63.7	35.6	86.5

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
NTPC LTD	339.95	0.0	16.7	116.6	16.7	0.0
HINDUSTAN ZINC	430.2	1.6	23.1	54.2	23.1	0.0
POWER FINANCE	417.75	0.5	25.8	51.5	25.8	0.0
INDIAN HOTELS	769.8	3.0	22.3	46.4	22.3	0.0
POLYCAB INDIA	6966	2.4	2.8	53.7	2.8	0.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
LTIMINDTREE LTD	5114.5	0.1	6624	1369	4.8
UNO MINDA LTD	1114.4	4.2	6659	1562	4.3
CG POWER	670.45	1.8	8681	2297	3.8
SUZLON ENERGY	60.38	-4.4	40831	11009	3.7
PAGE INDUSTRIES	43525	-1.3	11058	3105	3.6

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
PI INDUSTRIES	3772.7	-1.7	21507	22495	1.0
DIXON TECHNOLOGIES	15952	0.8	47651	39198	0.8
RAIL VIKAS NIGAM	326.3	-1.0	19397	15786	0.8
LIC	887.5	-3.2	20250	15654	0.8
MANAPPURAM FINANCE	255.4	0.7	4442	3412	0.8

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
AMBER ENTERPRISES	6945.5	1.5	10217	10217	100.0
NUVAMA WEALTH	6930	1.1	3631	3631	100.0
KAYNES TECHNOLOGY	6060	4.3	10747	11157	96.3
APOLLO HOSPITALS	7808.5	7.9	20983	22372	93.8

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
BHARAT DYNAMICS	1591	7.1	7218	7218	100.0
KAYNES TECHNOLOGY	6060	4.3	6463	6463	100.0
AMBER ENTERPRISES	6945.5	1.5	4583	4583	100.0
NUVAMA WEALTH	6930	1.1	1726	1726	100.0
APOLLO HOSPITALS	7808.5	7.9	19819	22484	88.2

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
APOLLO HOSPITALS	7808.5	7.9	276811	276811	100.0
FSN E-COMMERCE	215.04	5.1	44680	44680	100.0
BHARAT DYNAMICS	1591	7.1	61726	61726	100.0
NUVAMA WEALTH	6930	1.1	8195	8195	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
RAIL VIKAS NIGAM	326.3	-1.0	15786	15786	100.0
FSN E-COMMERCE	215.04	5.1	18043	18043	100.0
BHARAT DYNAMICS	1591	7.1	30098	30098	100.0
NUVAMA WEALTH	6930	1.1	2836	2836	100.0
MAX HEALTHCARE	1267.1	0.5	16390	18976	86.4

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
PG ELECTROPLAST	486.1	-5.6	16660	5779	2.9
KALYAN JEWELLERS	515.65	-1.3	20924	7520	2.8
NUVAMA WEALTH MA	6930	1.1	3631	1309	2.8
AMBER ENTERPRISE	6945.5	1.5	10217	4334	2.4
SUZLON ENERGY	60.38	-4.4	12983	5969	2.2

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
APOLLO HOSPITALS	7808.5	7.9	19819	6190	3.2
ALKEM LABORATORIES	5388.5	4.7	4839	1598	3.0
PG ELECTROPLAST	486.1	-5.6	6886	2668	2.6
SUZLON ENERGY	60.38	-4.4	4564	2159	2.1
ASTRAL LTD	1292.1	1.8	7239	3474	2.1

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
APOLLO HOSPITALS	7808.5	7.9	276811	28078	9.9
FSN E-COMMERCE	215.04	5.1	44680	6859	6.5
NUVAMA WEALTH	6930	1.1	8195	1279	6.4
SUZLON ENERGY	60.38	-4.4	40831	6424	6.4
ALKEM LABORATORIES	5388.5	4.7	37678	6656	5.7

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
APOLLO HOSPITALS	7808.5	7.9	106951	12190	8.8
PI INDUSTRIES	3772.7	-1.7	22495	2875	7.8
RAIL VIKAS NIGAM	326.3	-1.0	15786	2064	7.6
SUZLON ENERGY	60.38	-4.4	11009	1536	7.2
FSN E-COMMERCE	215.04	5.1	18043	2625	6.9

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	2600	1738200	14.0%	2280	2700	1308000	18.4%	ITC	420	15232000	1.4%	414	410	4086400	-1.0%
ADANIPTS	1400	2031575	6.1%	1320	1400	1261600	6.1%	JIOFIN	350	10090900	5.9%	331	310	5405000	-6.2%
APOLLOHOSP	8000	303875	2.5%	7809	7600	335375	-2.7%	JSWSTEEL	1060	1271025	0.6%	1054	920	558225	-12.7%
ASIANPAINT	2500	811750	0.0%	2500	2400	489500	-4.0%	KOTAKBANK	2200	1165200	10.7%	1988	2000	660400	0.6%
AXISBANK	1100	3306875	3.2%	1066	1060	1428750	-0.6%	LT	3700	1050000	0.2%	3694	3700	484925	0.2%
BAJAJ-AUTO	9000	204150	9.1%	8249	8000	110550	-3.0%	M&M	3400	1916800	3.6%	3282	3100	1487000	-5.6%
BAJAJFINSV	2000	1083000	4.5%	1914	1900	599500	-0.8%	MARUTI	13000	359200	1.3%	12834	12500	168950	-2.6%
BAJFINANCE	900	8762250	4.7%	860	900	3415500	4.7%	NESTLEIND	1150	844500	4.8%	1097	1050	347500	-4.3%
BEL	400	9909450	2.9%	389	380	4756650	-2.3%	NTPC	340	16866000	0.0%	340	340	4674000	0.0%
BHARTIARTL	2000	3289850	7.1%	1867	1860	1245925	-0.4%	ONGC	235	15158250	-1.5%	239	235	4959000	-1.5%
CIPLA	1600	847875	2.5%	1561	1500	405750	-3.9%	POWERGRID	300	5920400	4.1%	288	290	1480100	0.6%
COALINDIA	400	6085800	3.6%	386	450	2243700	16.6%	RELIANCE	1400	11958000	1.3%	1383	1400	5471500	1.3%
DRREDDY	1300	1746875	3.7%	1253	1200	840000	-4.3%	SBILIFE	1900	1206750	3.2%	1840	1800	181500	-2.2%
EICHERMOT	5700	211750	-0.3%	5715	5800	166425	1.5%	SBIN	830	9321750	1.0%	822	820	7782000	-0.2%
ETERNAL	320	10839750	2.4%	312	300	7105250	-4.0%	SHRIRAMFIN	700	1597200	13.0%	619	600	876975	-3.1%
GRASIM	2800	236250	2.0%	2746	2700	157750	-1.7%	SUNPHARMA	1740	881650	6.1%	1640	1500	1130150	-8.5%
HCLTECH	1500	1036000	-0.1%	1501	1500	627900	-0.1%	TATACONSUM	1100	911350	4.2%	1056	1000	391600	-5.3%
HDFCBANK	2000	3132250	1.0%	1980	2000	2531650	1.0%	TATAMOTORS	700	6749600	5.5%	664	600	2653600	-9.6%
HDFCLIFE	800	1461900	3.0%	777	730	755700	-6.0%	TATASTEEL	165	17347000	3.0%	160	160	7848500	-0.1%
HEROMOTOCO	4600	591900	-3.5%	4769	4600	332850	-3.5%	TCS	3200	2630950	5.4%	3036	3000	1078000	-1.2%
HINDALCO	700	3316600	-0.1%	701	700	2515800	-0.1%	TECHM	1600	825000	6.2%	1506	1500	667800	-0.4%
HINDUNILVR	2600	2385300	4.2%	2495	2400	639900	-3.8%	TITAN	3500	568925	1.0%	3467	3400	397600	-1.9%
ICICIBANK	1500	3964800	5.6%	1421	1400	1725500	-1.5%	TRENT	5500	487900	1.9%	5399	5000	284300	-7.4%
INDUSINDBK	900	2776200	16.4%	773	800	1494500	3.4%	ULTRACEMCO	12300	98150	-0.8%	12401	12000	55200	-3.2%
INFY	1600	3595600	12.2%	1427	1400	1761200	-1.9%	WIPRO	260	7134000	7.6%	242	240	3366000	-0.7%

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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