



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	24,848	0.1%▲
Open Interest (OI)	1,84,99,725	1.3%▲
Change in OI (abs)	1,84,99,725	2,30,850▲
Premium / Discount (Abs)	107	14▲
Inference	Long Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	54,365	0.1%▲
Open interest (OI)	30,86,860	1.2%▼
Change in OI (abs)	30,86,860	35,910▼
Premium / Discount (Abs)	250	32▲
Inference	Short Covering	

Volatility Insights

	Value	Change
India VIX Index	10.78	0.07▼
Nifty ATM IV (%)	9.66	0.1▼
Bank Nifty ATM IV (%)	10.23	0.3▼
PCR (Nifty)	0.86	0.02▲
PCR (Bank Nifty)	0.89	0.01▼

The FII Long Ratio in Index Futures **drop** to 7.3 %, **down** from 8 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ASTRAL	73,99,675	7.4%	1462.6	2.5%
NUVAMA	1,89,825	7.1%	6545	1.0%
SAMMAANCAP	6,38,29,200	5.8%	138.6	0.7%
PGEL	93,94,000	5.5%	556.65	0.2%
MOTHERSON	17,61,48,300	5.0%	95.11	0.3%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PERSISTENT	25,80,800	4.7%	5148.5	-3.0%
SIEMENS	20,13,125	4.2%	3104.1	-2.1%
CYIENT	28,92,550	4.0%	1172.4	-1.2%
GODREJPROP	82,87,675	3.7%	1971.8	-1.8%
GODREJCP	77,53,000	3.4%	1230.7	-1.2%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
RBLBANK	7,99,84,600	-6.8%	276.15	3.6%
BSE	1,22,23,875	-4.0%	2329.6	4.7%
MUTHOOTFIN	31,28,675	-3.8%	2847.8	0.5%
INDUSTOWER	8,95,40,700	-3.3%	338.95	4.2%
LTF	4,14,69,828	-2.5%	231.68	1.3%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
APOLLOHOSP	27,28,000	-2.8%	7842	-1.0%
IGL	1,44,26,500	-1.9%	212.39	-1.8%
FORTIS	1,01,47,075	-1.8%	950.3	-0.2%
CROMPTON	4,05,48,600	-1.6%	328.4	-0.2%
HINDUNILVR	1,43,98,200	-1.4%	2642.7	-1.1%

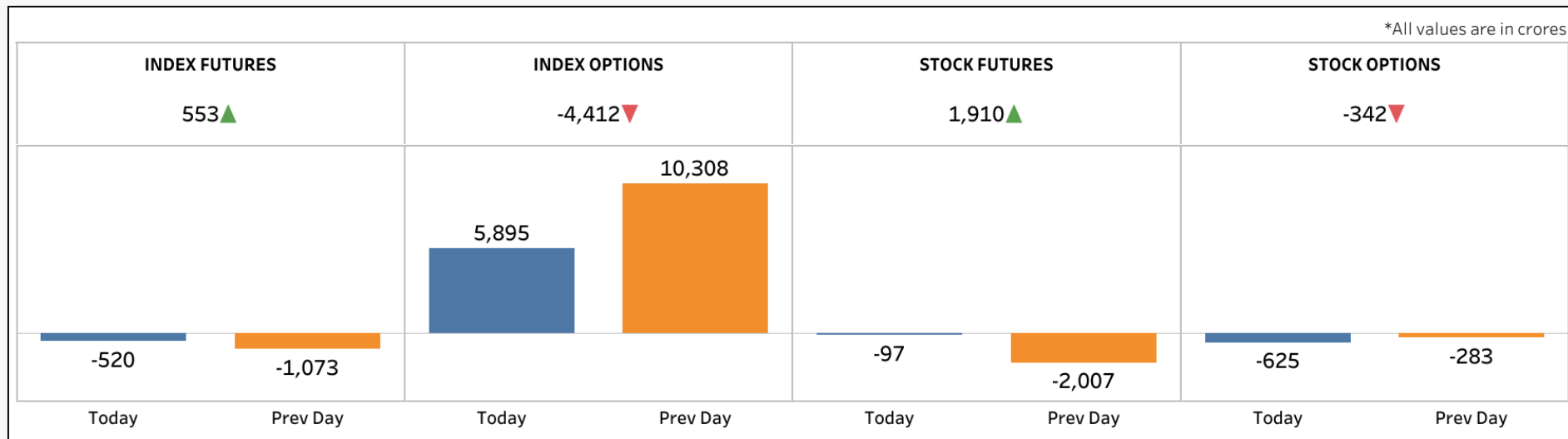
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

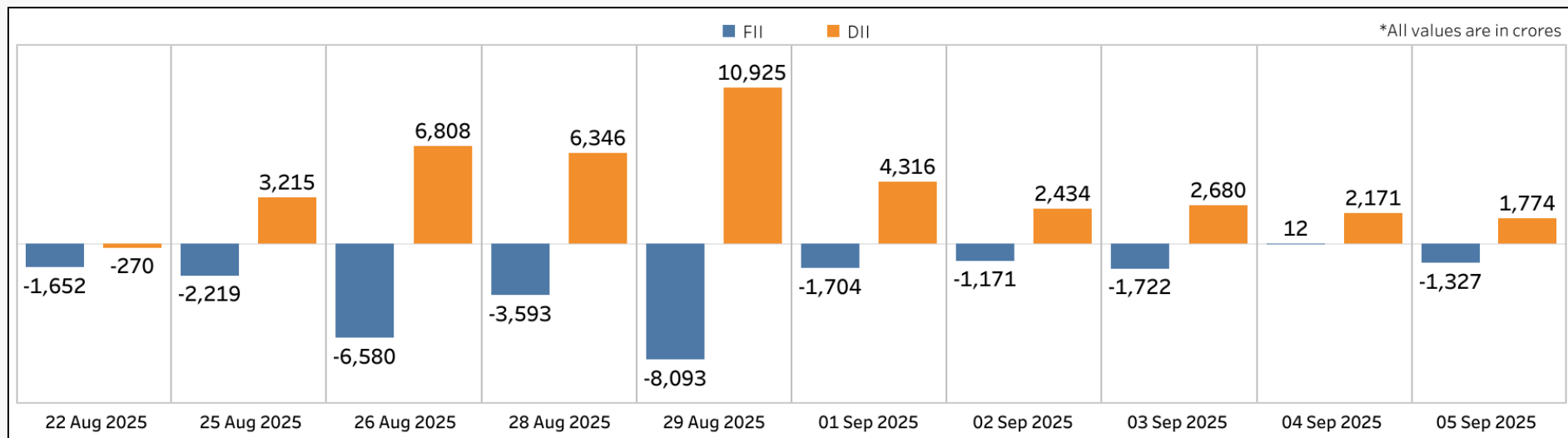
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
13,718 ▲	2,943 ▲	-36,551 ▼	29,783 ▲	0	4,201 ▲	2,600 ▲	-40,985 ▼
17,171	3,453	51,105					34,020
	-2,838	14,554		0	2,691	2,600	
	-5,781		-2,356	0	-1,510	0	-6,965
			-32,139				
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-42,232	-191,415	284,954	1,349,578	970	36,869	37,539	-4,019,967
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
-180,588 ▼	736 ▲	137,891 ▲	-4,448 ▼	166,868 ▲	-7,880 ▼	-103,940 ▼	15,650 ▲
124,599				38,817	91	44,349	6,189
	56	42,437	3,132		7,971		-9,461
-55,989	-680		7,580			-59,591	
		-95,454		-128,051			
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
24,653	130,636	-432,555	2,271,478	16,609	23,910	110,062	398,911
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day

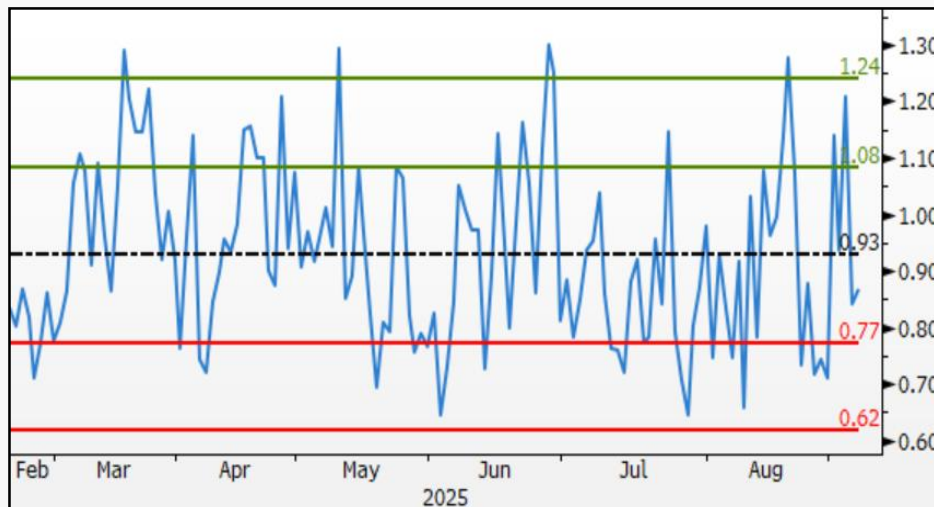
Daily Net Open Interest Change



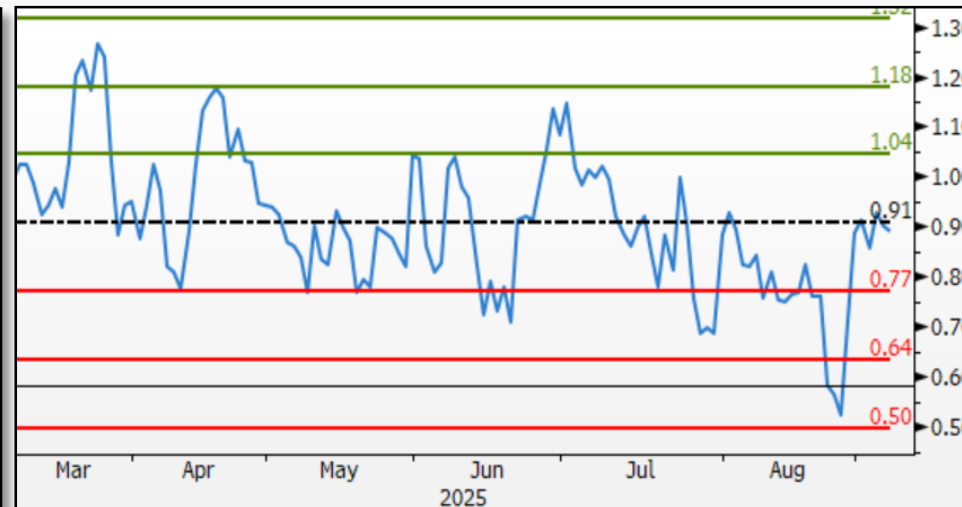
DII and FII Daily Cash Market Flows



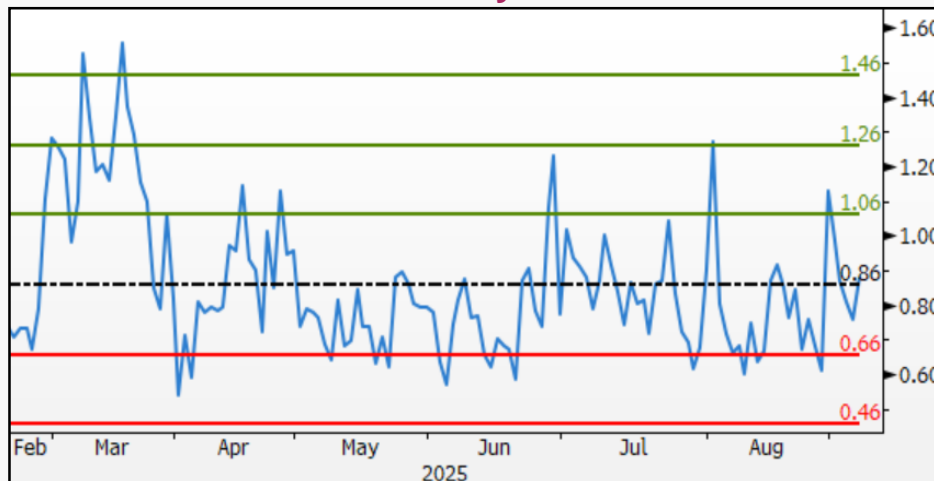
Nifty



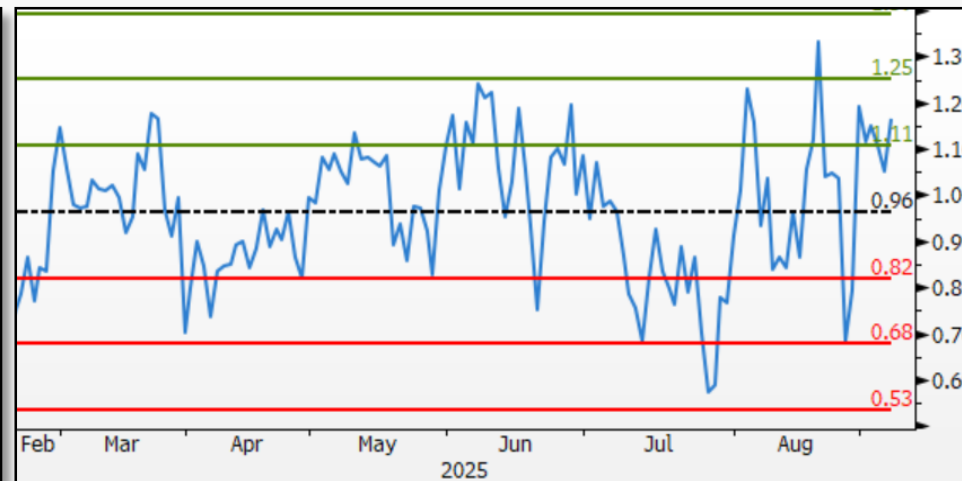
Bank Nifty



Fin Nifty



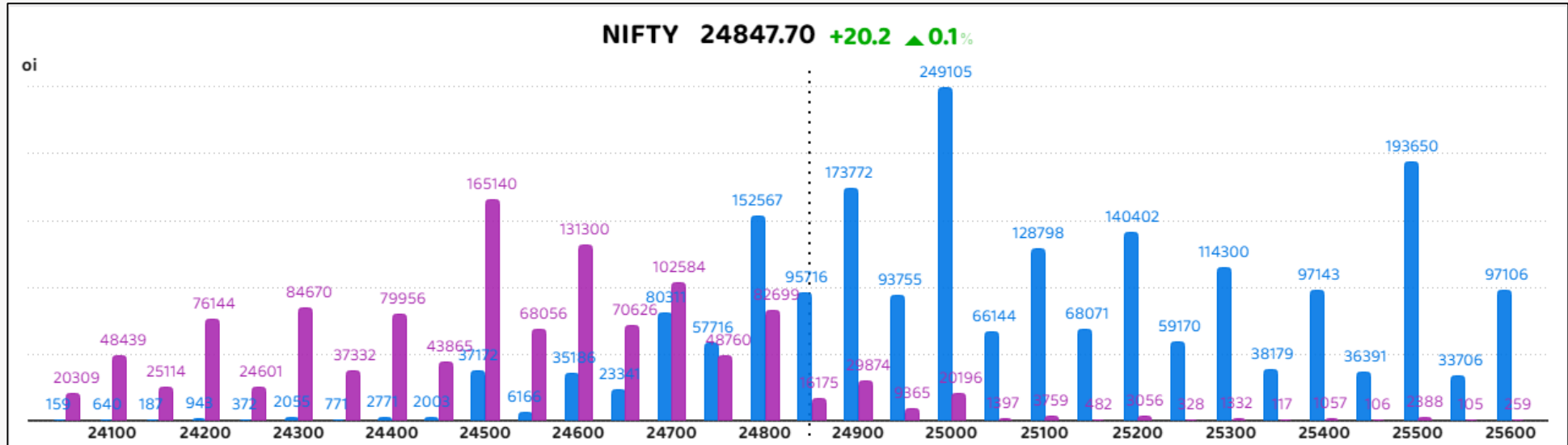
Midcap Select Nifty



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 the Nifty, the 25,000 Call and the 24,500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 55,000 Call and the 54,000 Put saw the most amount of open interest.

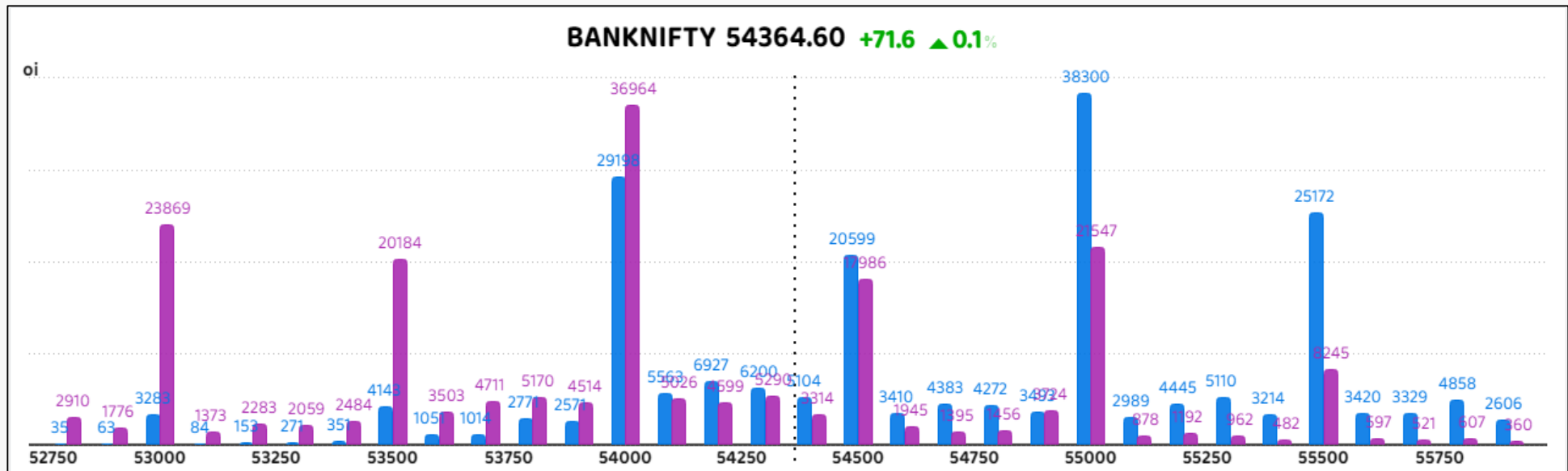
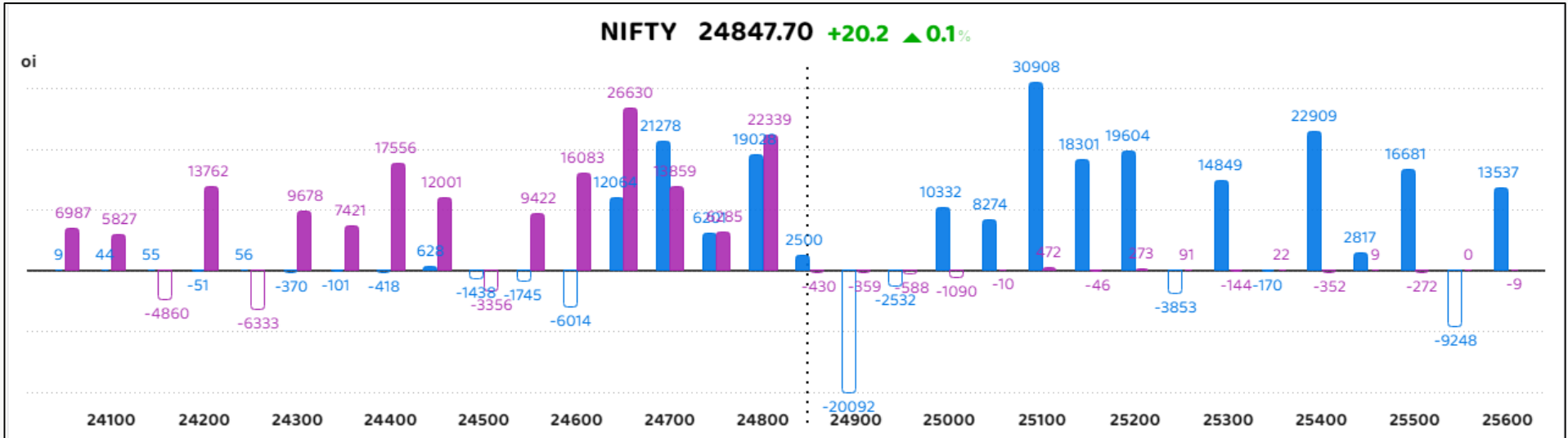


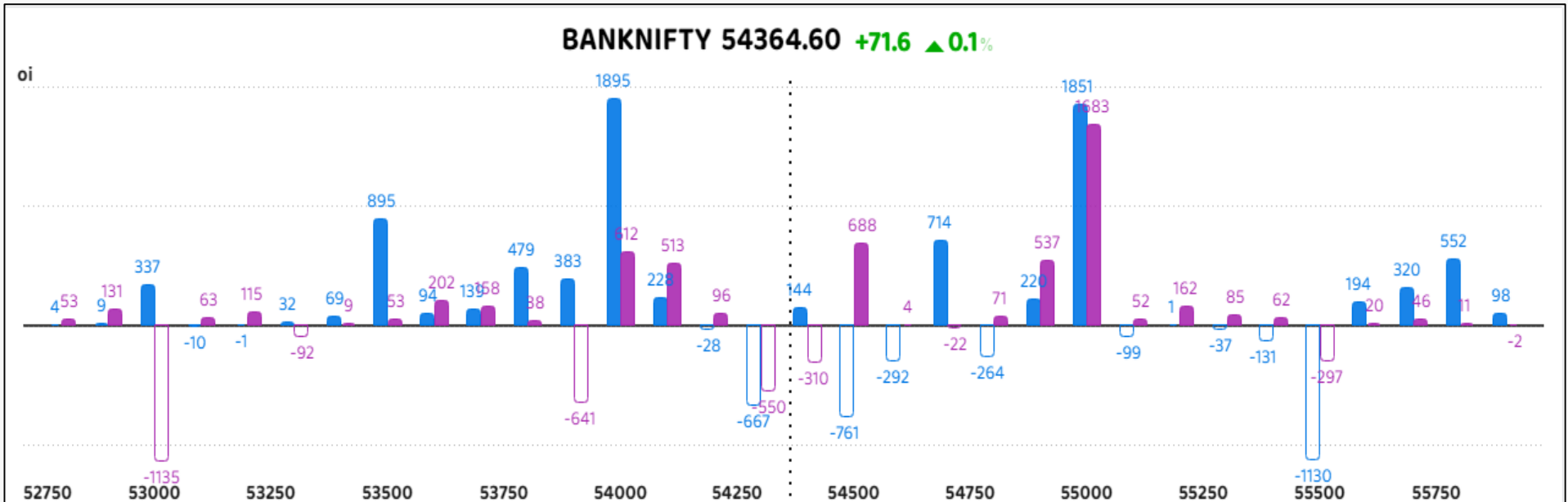
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,900 Call and the 24,600 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,000 Call & the 53,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
UNO MINDA LTD	1298.6	1.6	31.5	43.6	10.9	62.9
MARUTI SUZUKI	14895	1.6	17.5	29.9	0.4	57.9
BAJAJ AUTO LTD	9084.5	0.1	21.6	36.4	2.1	56.9
ASTRAL LTD	1454.9	2.4	24.2	40.4	2.9	56.9
TATA CONSUMER	1072.4	0.1	21.8	34.4	5.5	56.3

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
BAJAJ FINANCE LTD	937.6	0.3	21.1	34.0	21.1	0.0
COAL INDIA LTD	392.65	0.3	1.9	38.8	1.9	0.0
MAX HEALTHCARE	1170	0.8	24.6	54.5	24.6	0.0
CHOLAMANDALAM	1490.9	2.0	23.4	47.2	23.4	0.0
SHRIRAM FINANCE	592.5	1.1	27.0	49.1	27.0	0.0

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
PG ELECTROPLAST	554.15	-0.2	45.1	63.7	35.6	61.6
KFIN TECHNOLOGIES	1087.5	2.8	38.5	44.8	31.4	52.8
TATA ELXSI LTD	5451	0.4	30.5	51.9	20.0	49.2
PAGE INDUSTRIES	44285	-0.9	23.9	39.9	13.0	45.1
INFOSYS LTD	1444.6	-1.3	23.3	60.8	3.3	42.6

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
BAJAJ FINANCE LTD	937.6	0.3	21.1	34.0	21.1	0.0
COAL INDIA LTD	392.65	0.3	1.9	38.8	1.9	0.0
MAX HEALTHCARE	1170	0.8	24.6	54.5	24.6	0.0
CHOLAMANDALAM	1490.9	2.0	23.4	47.2	23.4	0.0
SHRIRAM FINANCE	592.5	1.1	27.0	49.1	27.0	0.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
KFIN TECHNOLOGIES	1087.5	2.8	6887	1173	5.9
VODAFONE IDEA LTD	7.2	9.4	38368	7569	5.1
ASHOK LEYLAND	130.8	2.2	26544	6280	4.2
GLENMARK PHARMA	2051.9	3.1	31818	8022	4.0
SUZLON ENERGY	57.9	0.8	5123	1328	3.9

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
WIPRO LTD	244.97	-0.5	20103	26676	1.3
SHREE CEMENT	29945	0.3	1177	1380	1.2
DIVI LABS LTD	6133.5	-2.0	8223	9337	1.1
NMDC LTD	73.43	1.5	11090	12164	1.1
TATA CONSULTANCY	3095.7	-1.5	129303	132271	1.0

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
PHOENIX MILLS	1501.1	1.1	3753	4058	92.5

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
RAIL VIKAS NIGAM	329.4	0.7	3967	4526	87.7
MAZAGON DOCK	2670.7	-0.4	8090	9557	84.7
PHOENIX MILLS	1518.1	1.1	2086	2552	81.7

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
NO STOCK OPTION MET THE CONDITION MENTIONED IN THE FOOTNOTE					

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
NO STOCK OPTION MET THE CONDITION MENTIONED IN THE FOOTNOTE					

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
HDFC LIFE	759.55	0.7	14955	8423	1.8
INTERGLOBE AVIATION	5670	-0.4	22707	13661	1.7
PHOENIX MILLS	1518.1	1.1	3753	2276	1.6
CG POWER	736.3	-0.5	7991	5053	1.6
TATA CONSUMER	1072.4	0.1	10234	6647	1.5

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
CG POWER	736.3	-0.5	6057	3531	1.7
EICHER MOTORS	6580.5	2.4	13097	8188	1.6
DABUR INDIA LTD	546.7	-1.1	6836	4468	1.5
PHOENIX MILLS	1518.1	1.1	2086	1382	1.5
TATA STEEL LTD	167.68	0.5	17640	11866	1.5

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
VODAFONE IDEA	7.23	9.4	38368	13172	2.9
GLENMARK PHARMA	2051.9	3.1	31818	12090	2.6
ZYDUS LIFESCIENCES	1013.85	0.2	20164	7864	2.6
KFIN TECHNOLOGIES	1087.5	2.8	6887	3030	2.3
VARUN BEVERAGES	469.65	-4.1	30561	13929	2.2

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
VARUN BEVERAGES	469.65	-4.1	22458	6730	3.3
PERSISTENT SYSTEMS	5132	-3.1	27614	9545	2.9
NMDC LTD	74.53	1.5	12164	4229	2.9
HCL TECH LTD	1419	-1.7	41470	14438	2.9
TECH MAHINDRA LTD	1477.9	-1.5	20873	7424	2.8

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	1016100	0.8%	2281	2600	924600	14.0%	ITC	410	10185600	0.7%	407	410	4220800	0.7%
ADANIPTS	1400	1177050	5.9%	1322	1400	1121950	5.9%	JIOFIN	320	7924200	3.4%	309	320	3771750	3.4%
APOLLOHOSP	8000	162000	2.5%	7805	7900	61750	1.2%	JSWSTEEL	1100	1347300	2.5%	1073	960	525825	-10.5%
ASIANPAINT	2600	1017500	0.8%	2580	2500	329000	-3.1%	KOTAKBANK	2000	1234000	2.8%	1946	1960	773200	0.7%
AXISBANK	1100	3396875	4.2%	1056	1060	1520000	0.4%	LT	3600	1229900	1.3%	3554	3600	624050	1.3%
BAJAJ-AUTO	10000	177975	10.1%	9085	8500	82650	-6.4%	M&M	3600	979000	1.1%	3561	3500	878600	-1.7%
BAJAJFINSV	2060	636000	2.3%	2014	1900	529000	-5.7%	MARUTI	15000	413300	0.7%	14895	14000	299800	-6.0%
BAJFINANCE	1000	1605000	6.7%	938	900	1491750	-4.0%	NESTLEIND	1200	642000	-0.7%	1209	1200	384000	-0.7%
BEL	400	7791900	7.9%	371	370	4394700	-0.2%	NTPC	340	6180000	3.4%	329	330	2149500	0.4%
BHARTIARTL	2000	1273475	5.5%	1895	1900	894900	0.2%	ONGC	240	14159250	2.5%	234	235	3217500	0.4%
CIPLA	1600	1365750	3.0%	1553	1440	267375	-7.3%	POWERGRID	300	3169200	5.1%	285	280	1858200	-1.9%
COALINDIA	400	4310550	1.9%	393	450	2155950	14.6%	RELIANCE	1400	12230500	1.8%	1375	1400	5988000	1.8%
DRREDDY	1300	2505625	2.5%	1268	1100	561875	-13.3%	SBILIFE	1900	496500	5.2%	1805	1800	238875	-0.3%
EICHERMOT	7000	262325	6.4%	6581	6000	371700	-8.8%	SBIN	820	5277000	1.7%	807	800	3899250	-0.8%
ETERNAL	310	12222000	-5.8%	329	320	6899125	-2.8%	SHRIRAMFIN	600	1908225	1.3%	593	580	1112100	-2.1%
GRASIM	2900	232000	3.4%	2804	2600	127250	-7.3%	SUNPHARMA	1600	1234450	0.4%	1594	1500	950250	-5.9%
HCLTECH	1500	1723050	5.7%	1419	1400	501900	-1.3%	TATACONSUM	1100	1423950	2.6%	1072	970	431200	-9.5%
HDFCBANK	1000	8005800	3.8%	963	950	3284600	-1.4%	TATAMOTORS	700	6804800	1.2%	692	700	3039200	1.2%
HDFCLIFE	800	3878600	5.3%	760	760	771100	0.1%	TATASTEEL	170	14481500	1.4%	168	160	18260000	-4.6%
HEROMOTOCO	5400	361500	0.7%	5363	5000	237900	-6.8%	TCS	3200	1879500	5.0%	3048	3000	947100	-1.6%
HINDALCO	750	1709400	0.8%	744	700	1411200	-5.9%	TECHM	1580	1363200	6.9%	1478	1480	1323600	0.1%
HINDUNILVR	2700	1617900	2.5%	2633	2600	354900	-1.3%	TITAN	3700	338800	0.9%	3665	3600	255150	-1.8%
ICICIBANK	1400	2511600	-0.2%	1403	1400	2172800	-0.2%	TRENT	5600	500800	1.3%	5529	5400	157600	-2.3%
INDUSINDBK	800	1507800	5.7%	757	720	1001000	-4.9%	ULTRACEMCO	13000	110500	3.2%	12601	12000	44050	-4.8%
INFY	1500	2857200	3.8%	1445	1440	2062000	-0.3%	WIPRO	260	6498000	6.7%	244	240	3366000	-1.5%

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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