



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	24,898	0.9%▼
Open Interest (OI)	1,76,89,875	0.5%▼
Change in OI (abs)	1,76,89,875	86,400▼
Premium / Discount (Abs)	28	11▼
<b>Inference</b>	<b>Long Unwinding</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	55,271	1.1%▼
Open interest (OI)	32,30,815	9.3%▲
Change in OI (abs)	32,30,815	2,74,295▲
Premium / Discount (Abs)	121	13▼
<b>Inference</b>	<b>Short Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	11.73	0.36▲
Nifty ATM IV (%)	9.03	0.3▲
Bank Nifty ATM IV (%)	10.27	0.4▲
PCR (Nifty)	0.73	0.36▼
PCR (Bank Nifty)	0.59	0.16▼

The FII Long Ratio in Index Futures **jump** to 10.7 %, **up** from 10 % in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KAYNES	9,50,900	13.3%	6215.5	0.9%
MANKIND	21,30,300	11.0%	2608.4	0.1%
IGL	2,10,62,250	6.9%	207.78	0.4%
INDUSTOWER	8,40,97,300	4.2%	354.3	1.8%
CIPLA	1,17,60,000	3.9%	1595.5	0.0%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DABUR	2,30,41,250	7.1%	516.95	-0.3%
BHARATFORG	1,37,09,500	6.6%	1123.9	-2.7%
ICICIGI	54,59,350	6.4%	1914.1	-2.9%
ANGELONE	31,30,750	5.8%	2526.2	-0.2%
SHREECEM	2,66,000	5.4%	30035	-2.1%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ABFRL	2,93,12,400	-25.0%	81.18	7.4%
NUVAMA	1,51,950	-14.2%	6959	1.0%
CESC	88,12,375	-14.2%	167.1	1.4%
IREDA	3,66,76,950	-11.5%	147.86	0.6%
PGEL	1,14,37,300	-8.7%	564.1	0.9%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
IRB	5,70,67,400	-13.0%	43.76	-1.9%
HEROMOTOCO	65,17,200	-10.9%	5011.5	-1.8%
KALYANKJIL	3,00,17,725	-7.6%	510.6	-0.2%
ATGL	22,85,500	-6.3%	618.1	-0.2%
OFSS	9,28,500	-6.2%	8643	-0.9%

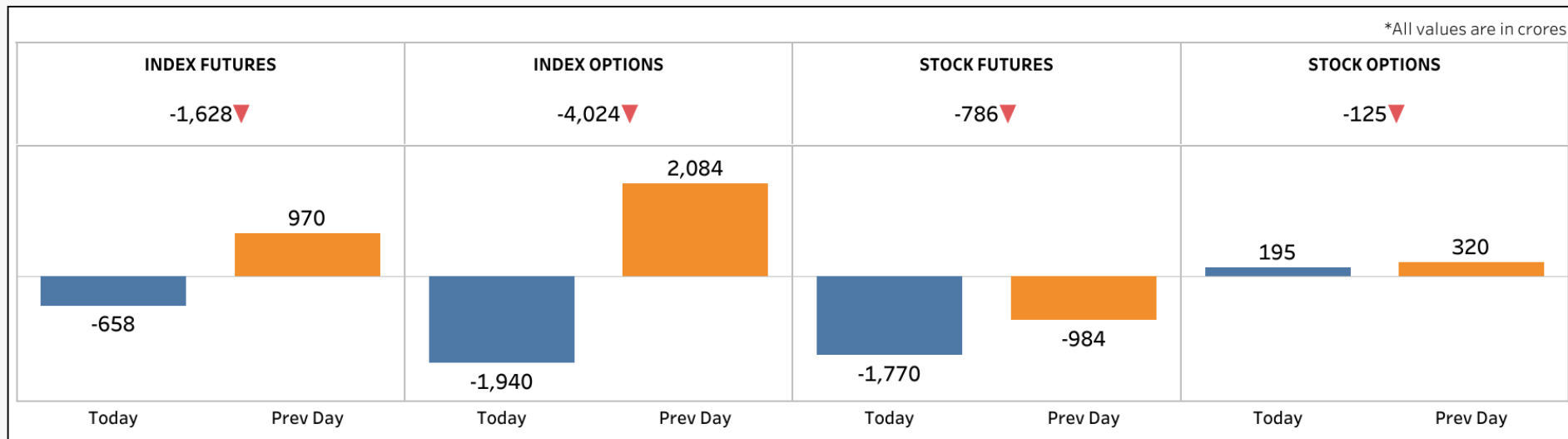
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Trends by Participant

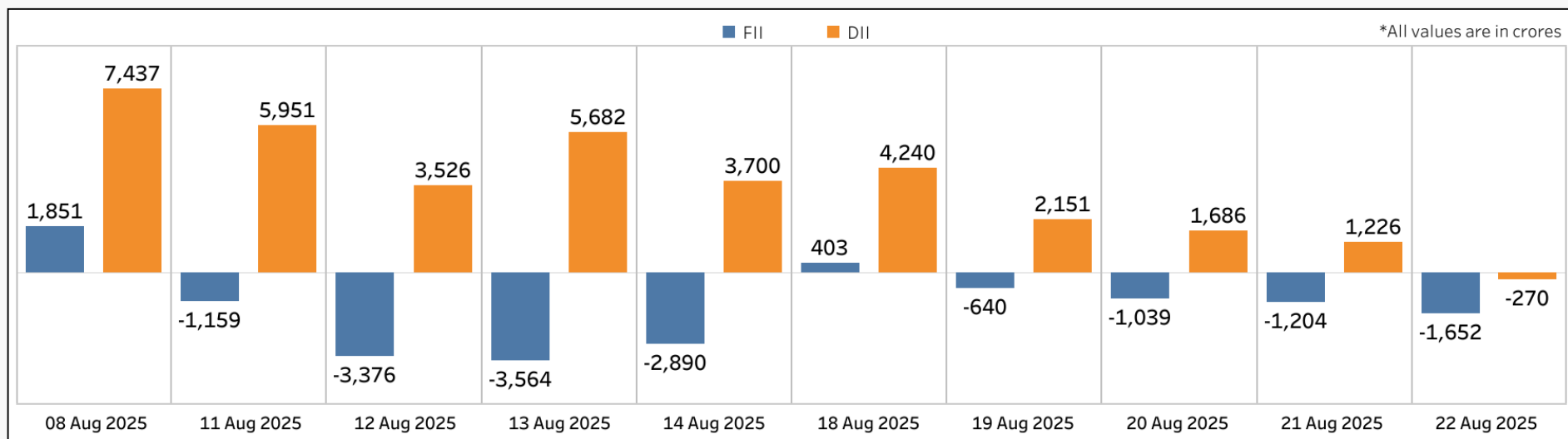
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-67,383 ▼	-8,601 ▼	-19,201 ▼	-12,241 ▼	0	-635 ▼	9,825 ▲	12,015 ▲
22,956	5,142	51,236					38,188
-44,427	-3,459	32,035	-28,307	0	-1,927	-9,825	26,173
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-59,392	-171,509	294,569	1,346,065	950	28,985	44,854	-3,967,187
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-28,163 ▼	13,283 ▲	-91,905 ▼	6,854 ▲	95,547 ▲	-4,047 ▼	101,280 ▲	-6,628 ▼
2,849	5,608		8,199			141,178	
-25,314	-7,675	-81,308	1,345	69,741	3,825	39,898	-11,452
		-173,213		-25,806	-222		-18,080
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
11,023	117,048	-580,080	2,240,637	47,419	25,476	240,657	380,485
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day

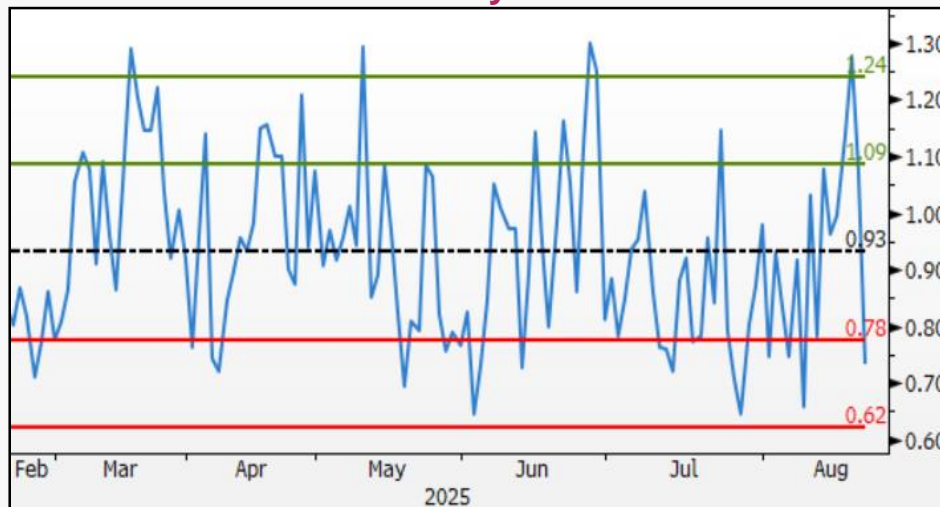
## Daily Net Open Interest Change



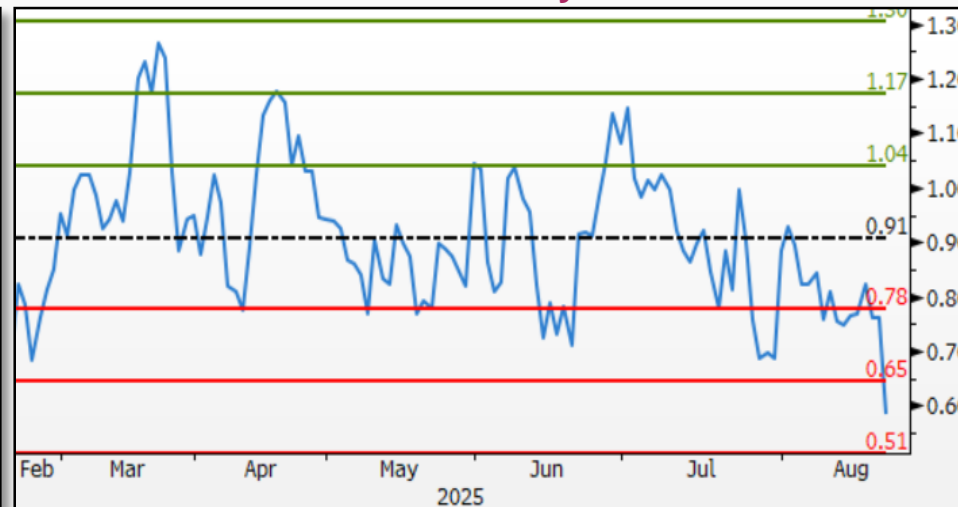
## DII and FII Daily Cash Market Flows



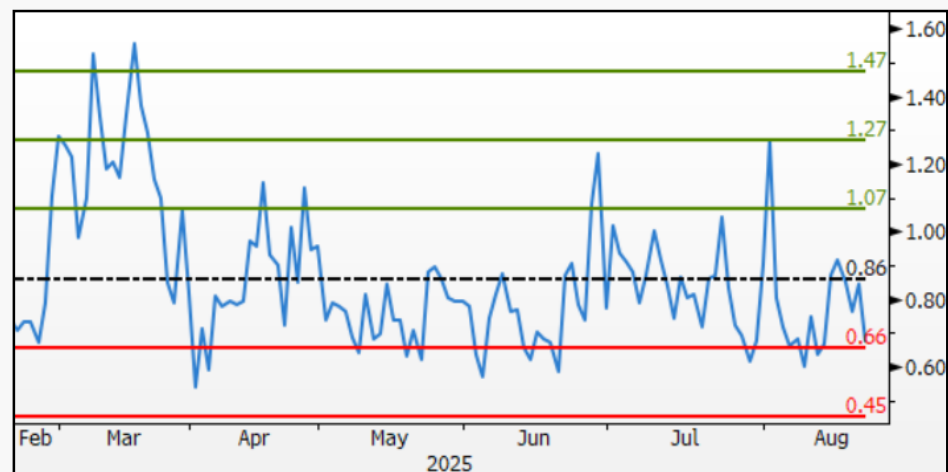
## Nifty



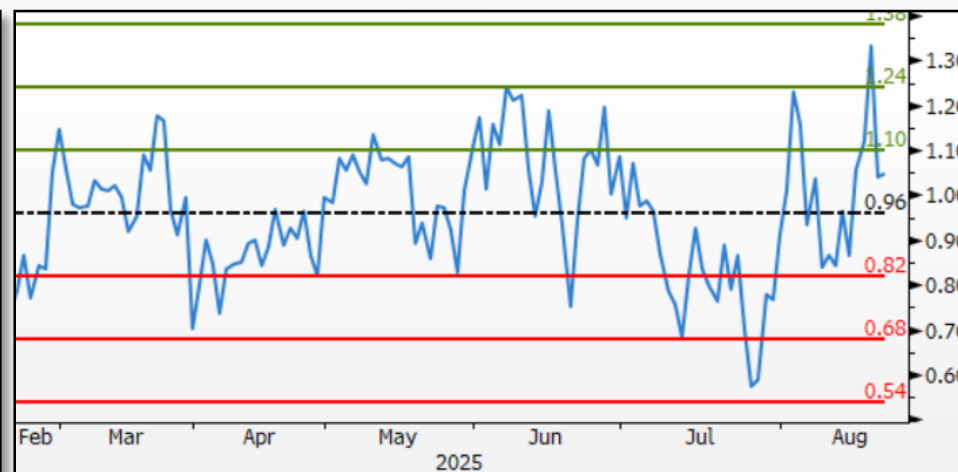
## Bank Nifty



## Fin Nifty

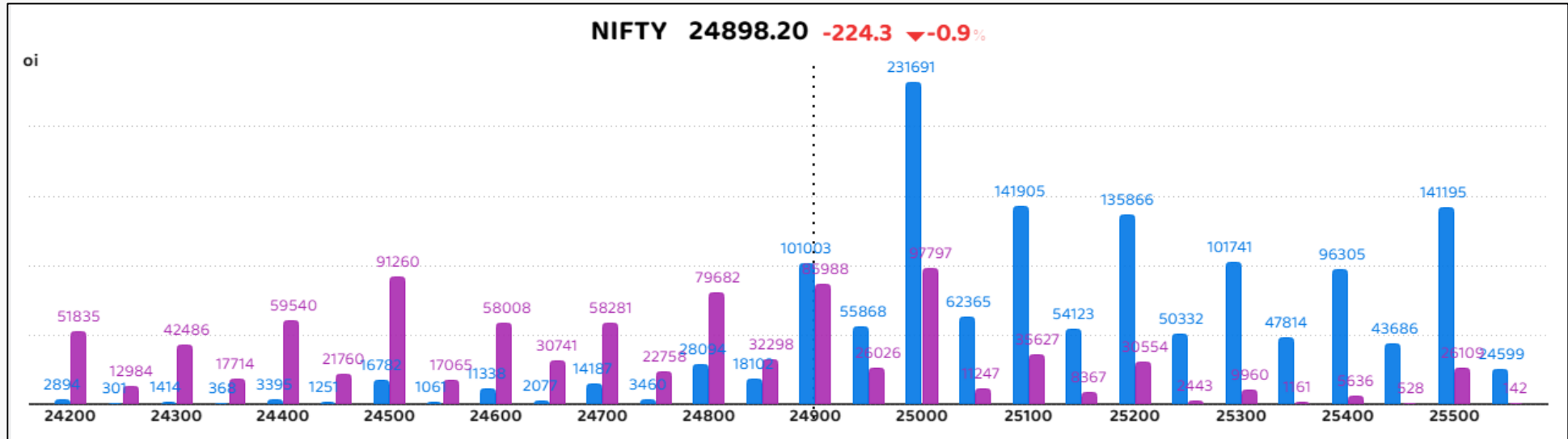


## Midcap Select Nifty



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

Call  Put 



For the Nifty, the 25,000 Call and the 24,900 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.

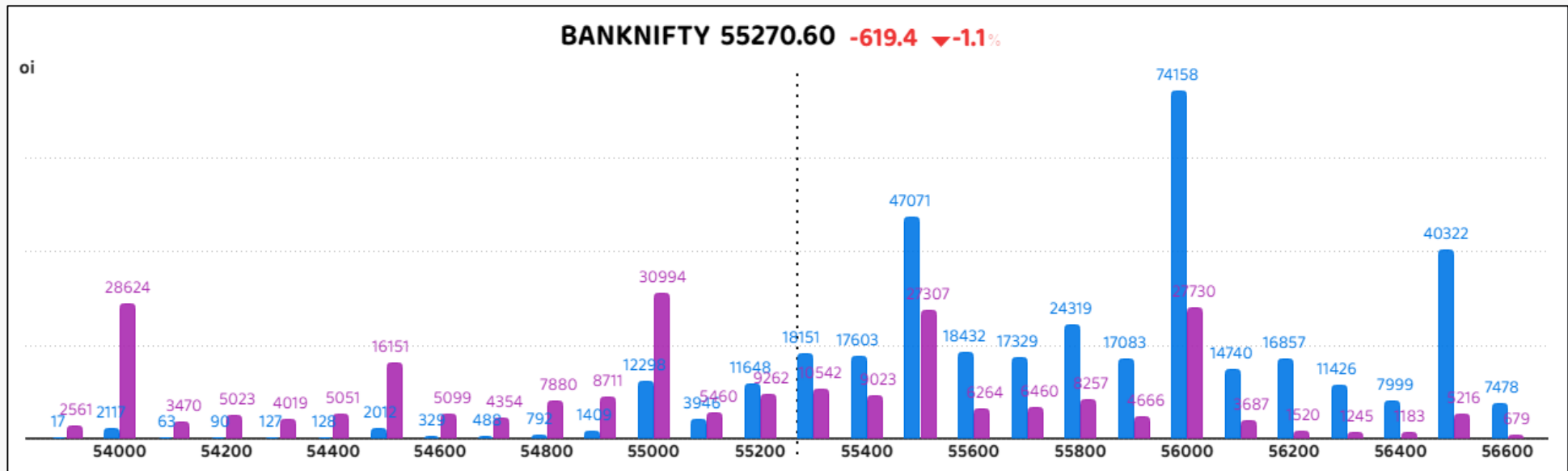
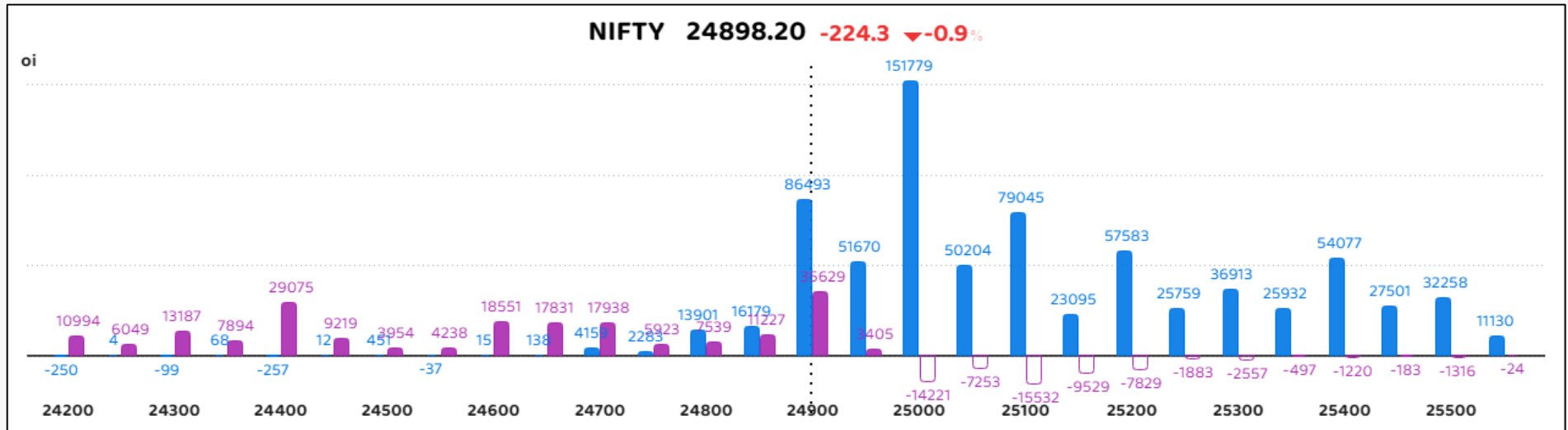


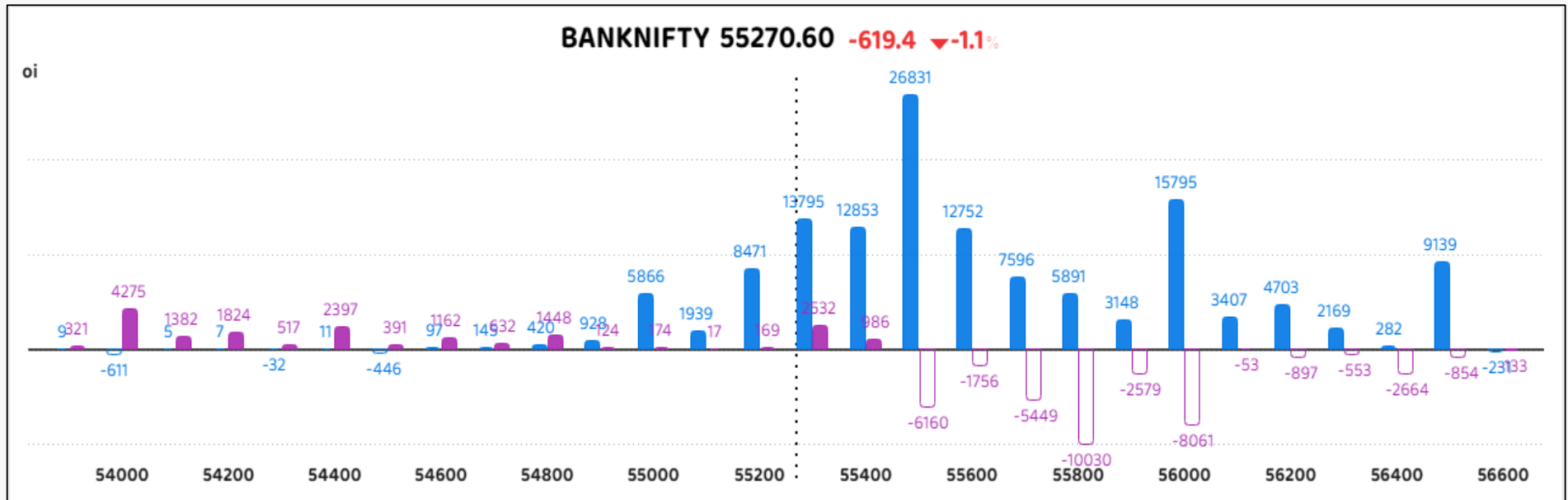
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,000 Call and the 24,900 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,500 Call & the 55,800 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
BLUE STAR LTD	1920	1.0	37.9	40.0	23.4	87.0
RBL BANK LTD	253.15	-0.4	62.8	76.5	10.6	79.1
SHREE CEMENT	30005	-2.0	26.0	31.9	7.9	75.6
BOSCH LTD	39325	-0.4	26.4	36.2	2.1	71.2
SBI CARDS & PAYMENTS	821	-0.5	26.7	36.9	4.6	68.3

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
RELIANCE INDS	1409.2	-1.1	1.4	34.1	1.4	0.0
HINDUSTAN ZINC	424.9	-1.4	21.8	54.2	21.8	0.0
ADANI GREEN	957.2	-1.0	30.8	74.3	30.8	0.0
TVS MOTOR CO LTD	3294.6	0.4	20.2	41.2	20.2	0.0
BANK OF BARODA	240.23	-1.3	20.4	66.9	20.4	0.0



## Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ADITYA BIRLA FASHION	81.25	7.4	52.2	97.3	9.9	98.0
RBL BANK LTD	253.15	-0.4	62.8	76.5	10.6	97.1
BLUE STAR LTD	1920	1.0	37.9	40.0	23.4	96.6
PAGE INDUSTRIES	45655	-0.5	28.6	39.9	13.0	85.9
SHREE CEMENT	30005	-2.0	26.0	31.9	7.9	80.9

## Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
RELIANCE INDS	1409.2	-1.1	1.4	34.1	1.4	0.0
HINDUSTAN ZINC	424.9	-1.4	21.8	54.2	21.8	0.0
ADANI GREEN	957.2	-1.0	30.8	74.3	30.8	0.0
TVS MOTOR CO LTD	3294.6	0.4	20.2	41.2	20.2	0.0
BANK OF BARODA	240.23	-1.3	20.4	66.9	20.4	0.0

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
IRCTC	725	-0.1	13994.0	2618.0	5.4
CG POWER	679.85	0.3	20898.0	4005.0	5.2
CESC LTD	166.81	1.3	6861.0	1330.0	5.2
VODAFONE IDEA	7.07	7.9	52653.0	10612.0	5.0
BLUE STAR LTD	1920	1.0	6741.0	1370.0	4.9

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
MAX FINANCIAL SERVICES	1659.2	-1.2	2116	3695	1.7
OBEROI REALTY	1659.7	-0.1	6307	10948	1.7
ICICI LOMBARD	1967.1	-2.9	14219	18692	1.3
JSW ENERGY LTD	521.3	-0.7	9880	12411	1.3
NTPC LTD	338.8	-0.5	25393	30154	1.2

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
UNO MINDA LTD	1230.6	2.9	4966	4966	100.0
AMBER ENTERPRISES	7332.5	-1.0	10743	10859	98.9
PRESTIGE ESTATES	1630.6	0.3	6462	6989	92.5
ONE 97 COMMUNICATIONS	1245.6	1.5	23176	26813	86.4
KAYNES TECHNOLOGY	6145.5	1.0	9633	11157	86.3

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
UNO MINDA LTD	1265.8	2.9	3277	3277	100.0
L&T FINANCE LTD	222.7	0.4	7621	7621	100.0
NUVAMA WEALTH	6980.5	1.0	2584	2620	98.6
MARUTI SUZUKI	14349	0.5	96582	98277	98.3
RAIL VIKAS NIGAM	323.75	-1.5	4296	4526	94.9

## Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
UNO MINDA LTD	1265.8	2.9	24909	24909	100.0
ADITYA BIRLA FASHION	81.25	7.4	111537	111537	100.0
INDUS TOWERS LTD	353.55	1.6	109953	129275	85.1

## Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
ADITYA BIRLA FASHION	81.25	7.4	32118	38403	83.6

### Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
UNO MINDA LTD	1265.8	2.9	4966	2290	2.2
ICICI LOMBARD	1910.7	-2.9	5843	3165	1.8
SUZLON ENERGY	58.51	0.6	18416	10058	1.8
TUBE INVESTMENTS	3072.1	-0.8	4203	2308	1.8
KALYAN JEWELLERS	511.15	0.0	21386	12479	1.7

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
MARUTI SUZUKI	14349	0.5	96582	36627	2.6
NTPC LTD	337	-0.5	29079	13285	2.2
UNO MINDA LTD	1265.8	2.9	3277	1606	2.0
SUZLON ENERGY	58.51	0.6	7593	3835	2.0
APOLLO HOSPITALS	7922.5	-0.1	18208	9482	1.9

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
ADITYA BIRLA FASHION	81.25	7.4	111537	13444	8.3
VODAFONE IDEA	7.07	7.9	52653	8588	6.1
INDUS TOWERS LTD	353.55	1.6	109953	19158	5.7
TITAGARH RAIL	858.85	0.4	42458	8177	5.2
TUBE INVESTMENTS	3072.1	-0.8	32980	8079	4.1

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
ICICI LOMBARD	1910.7	-2.9	18692	1969	9.5
ADITYA BIRLA FASHION	81.25	7.4	32118	4051	7.9
INDUS TOWERS LTD	353.55	1.6	34421	7722	4.5
SHREE CEMENT	30005	-2.0	15483	3628	4.3
TUBE INVESTMENTS	3072.1	-0.8	8190	1964	4.2

## 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	1553400	11.8%	2325	2700	943500	16.1%	ITC	420	14345600	5.4%	398	410	4062400	2.9%
ADANIPTS	1400	2198300	4.4%	1341	1300	1210300	-3.1%	JIOFIN	330	10168450	2.9%	321	320	3590800	-0.2%
APOLLOHOSP	8000	225000	1.0%	7923	7500	234125	-5.3%	JSWSTEEL	1080	1019925	2.4%	1055	1020	534600	-3.3%
ASIANPAINT	2600	923750	3.8%	2505	2400	448750	-4.2%	KOTAKBANK	2200	937600	10.7%	1987	2000	540400	0.7%
AXISBANK	1100	3023750	2.7%	1071	1060	1354375	-1.0%	LT	3700	1085700	2.9%	3596	3600	422275	0.1%
BAJAJ-AUTO	9000	266775	3.7%	8680	8000	150150	-7.8%	M&M	3400	1908800	-0.1%	3403	3100	1364000	-8.9%
BAJAJFINSV	2000	1140000	1.7%	1966	1900	727500	-3.4%	MARUTI	14200	435750	-1.0%	14349	14000	550250	-2.4%
BAJFINANCE	900	5292000	0.6%	895	900	2799750	0.6%	NESTLEIND	1150	675000	-1.1%	1163	1050	299500	-9.7%
BEL	390	10382550	4.0%	375	370	3924450	-1.3%	NTPC	340	17509500	0.9%	337	340	4263000	0.9%
BHARTIARTL	2000	3223825	3.5%	1933	1900	767600	-1.7%	ONGC	235	16839000	-0.5%	236	235	7452000	-0.5%
CIPLA	1600	913125	0.5%	1593	1500	367875	-5.8%	POWERGRID	300	6433400	5.9%	283	280	1672000	-1.2%
COALINDIA	400	4387500	6.8%	374	450	2187000	20.2%	RELIANCE	1500	6365000	6.4%	1409	1400	3048000	-0.7%
DRREDDY	1300	1546875	1.8%	1278	1240	855000	-2.9%	SBILIFE	1900	939000	2.2%	1859	1800	223125	-3.2%
EICHERMOT	6000	282275	1.3%	5925	5600	168000	-5.5%	SBIN	830	9901500	1.7%	816	800	5279250	-2.0%
ETERNAL	320	10362025	0.3%	319	300	6423825	-6.0%	SHRIRAMFIN	700	1272975	13.7%	616	620	806850	0.7%
GRASIM	2900	401250	3.1%	2814	2740	203250	-2.6%	SUNPHARMA	1740	751450	6.0%	1642	1500	547400	-8.6%
HCLTECH	1500	1592500	2.3%	1466	1500	894600	2.3%	TATACONSUM	1100	713350	1.5%	1084	1060	322300	-2.2%
HDFCBANK	2000	4743200	1.8%	1965	2000	2349050	1.8%	TATAMOTORS	700	8428000	2.9%	680	660	2489600	-3.0%
HDFCLIFE	810	1508100	2.7%	789	770	1139600	-2.4%	TATASTEEL	165	19327000	4.1%	159	155	6418500	-2.2%
HEROMOTOCO	4600	526050	-8.0%	4998	4600	306900	-8.0%	TCS	3200	2285325	4.8%	3054	3000	891625	-1.8%
HINDALCO	710	2564800	0.8%	704	660	1394400	-6.3%	TECHM	1600	625800	6.3%	1505	1500	718800	-0.3%
HINDUNILVR	2600	1484700	-1.1%	2630	2600	602100	-1.1%	TITAN	3600	294175	-0.6%	3621	3500	413700	-3.3%
ICICIBANK	1500	4142600	4.4%	1436	1400	1356600	-2.5%	TRENT	5500	488200	1.5%	5418	5000	292600	-7.7%
INDUSINDBK	800	2247700	5.2%	760	800	1152200	5.2%	ULTRACEMCO	12900	125550	2.5%	12589	12800	48600	1.7%
INFY	1500	4123200	0.8%	1488	1400	1343200	-5.9%	WIPRO	260	6351000	4.6%	249	240	3573000	-3.5%

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)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.

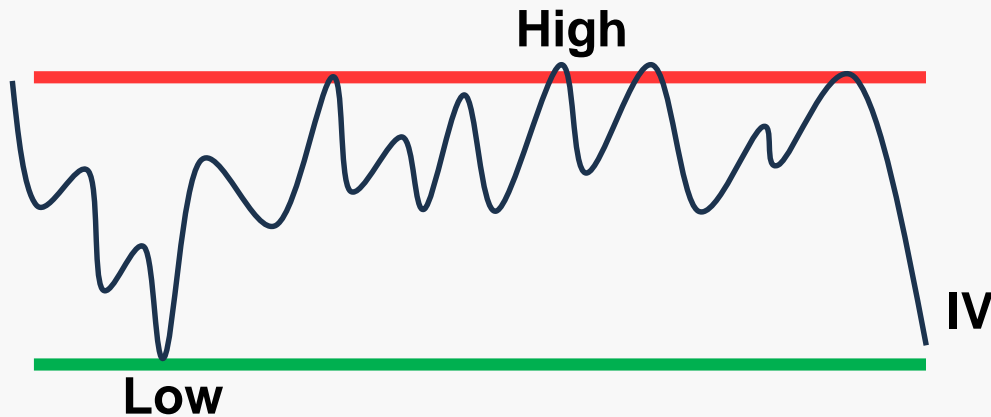


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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.

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