



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	24,673	0.2%▲
Open Interest (OI)	1,79,15,400	0.9%▲
Change in OI (abs)	1,79,15,400	1,50,750▲
Premium / Discount (Abs)	77	17▲
<b>Inference</b>	<b>Long Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	55,758	0.3%▲
Open interest (OI)	28,16,695	0.6%▲
Change in OI (abs)	28,16,695	15,330▲
Premium / Discount (Abs)	236	67▲
<b>Inference</b>	<b>Long Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	11.69	0.27▼
Nifty ATM IV (%)	10.09	0.7▼
Bank Nifty ATM IV (%)	10.69	0.5▼
PCR (Nifty)	1.06	0.32▲
PCR (Bank Nifty)	0.84	0.02▲

The FII Long Ratio in Index Futures **jump** to 8.6 %, **up** from 8.6 % in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ETERNAL	21,81,33,600	33.4%	303.5	1.4%
NUVAMA	1,15,725	24.4%	6979.5	0.2%
FORTIS	1,03,49,350	13.5%	888.5	3.3%
IEX	4,47,75,000	8.6%	134.14	1.0%
DELHIVERY	1,38,11,200	7.8%	467.95	2.4%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KFINTECH	23,08,500	13.9%	1088.3	-1.9%
INDUSTOWER	7,01,19,900	8.0%	337.1	-1.4%
HUDCO	3,55,56,075	5.1%	210.21	-0.6%
LICI	67,20,000	5.0%	887.55	-1.1%
ASHOKLEY	9,37,80,000	4.9%	120.45	-0.7%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BLUESTARCO	11,16,050	-9.7%	1835.3	2.9%
CESC	1,26,44,000	-7.9%	166.69	3.1%
IIFL	1,28,13,900	-5.8%	455.9	0.4%
PPLPHARMA	1,28,57,500	-5.6%	192.84	3.2%
CHOLAFIN	1,23,25,000	-5.5%	1490.4	2.1%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
JSL	49,45,300	-6.7%	722.1	-2.0%
PGEL	66,05,200	-2.9%	739.85	-1.8%
NBCC	5,05,37,500	-2.4%	109.96	-0.3%
IRFC	4,06,55,500	-2.2%	127.81	-0.2%
ICICIPRULI	1,30,67,475	-2.1%	620.25	-0.1%

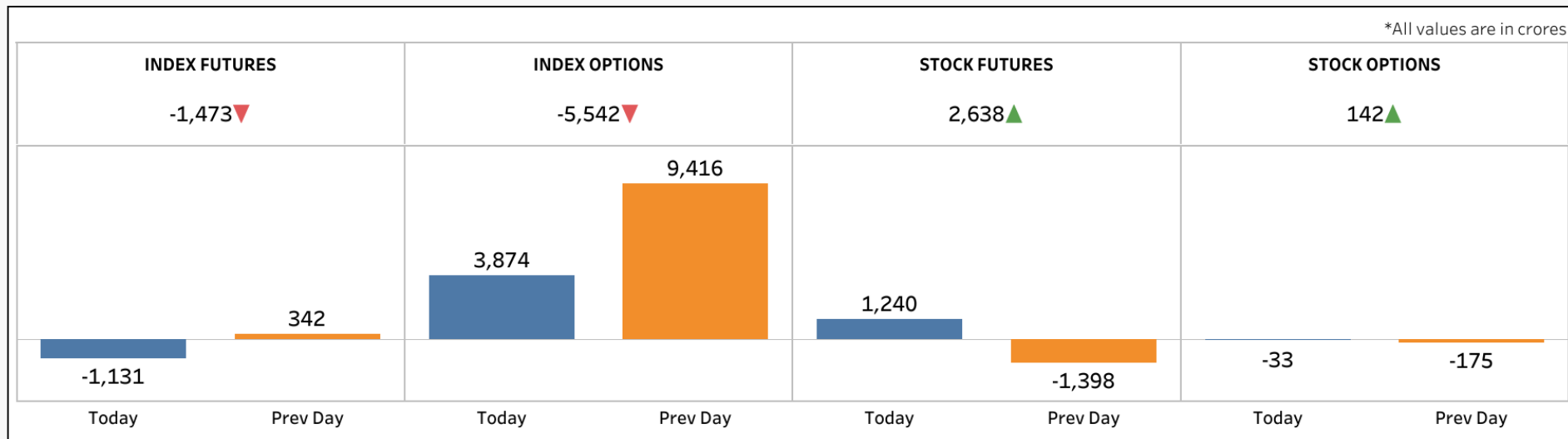
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Trends by Participant

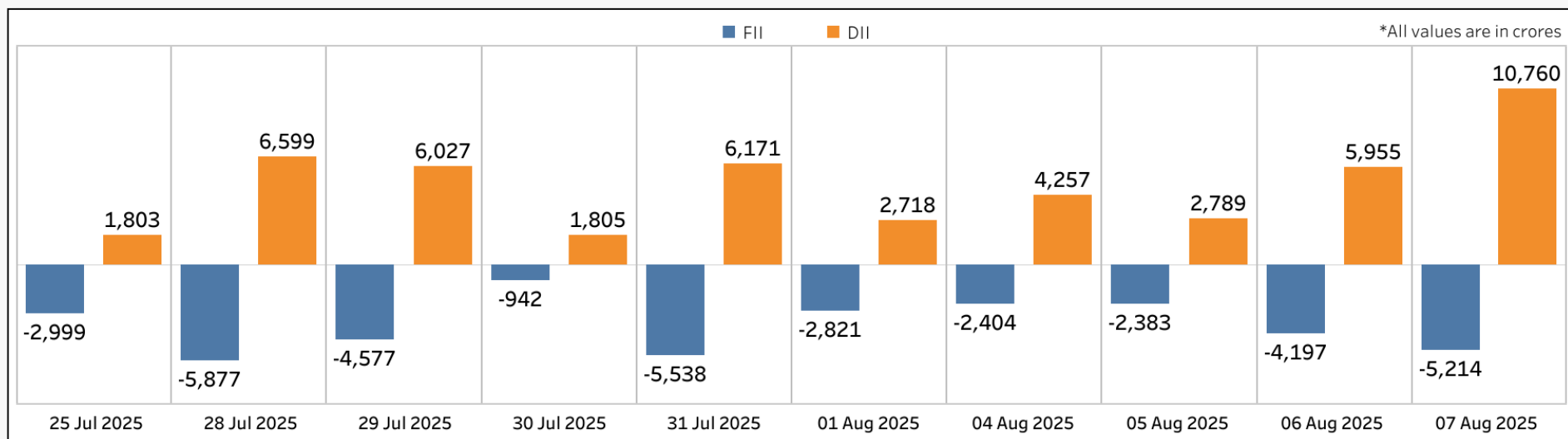
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
20,136 ▲	-7,851 ▼	-85,149 ▼	35,278 ▲	0	2,663 ▲	-14,251 ▼	-46,473 ▼
7,086	1,683	65,116	13,212	0	3,089	10,000	3,086
-13,050	-6,168	-20,033	-22,066		426	-4,251	-43,387
Net O/S -45,756 Today Prev Day	Net O/S -173,259 Today Prev Day	Net O/S 241,975 Today Prev Day	Net O/S 1,300,115 Today Prev Day	Net O/S 70 Today Prev Day	Net O/S 36,932 Today Prev Day	Net O/S 25,383 Today Prev Day	Net O/S -3,985,198 Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-163,465 ▼	8,559 ▲	123,863 ▲	12,338 ▲	143,331 ▲	-3,371 ▼	-24,463 ▼	-1,143 ▼
101,389	4,936	86,444	22,952	54,991	1,514		7,223
-62,076	-3,623	-37,419	10,614	-88,340	-1,857	-37,698	8,366
Net O/S 67,222 Today Prev Day	Net O/S 119,810 Today Prev Day	Net O/S -376,251 Today Prev Day	Net O/S 2,237,666 Today Prev Day	Net O/S -21,536 Today Prev Day	Net O/S 16,517 Today Prev Day	Net O/S 108,892 Today Prev Day	Net O/S 447,417 Today Prev Day

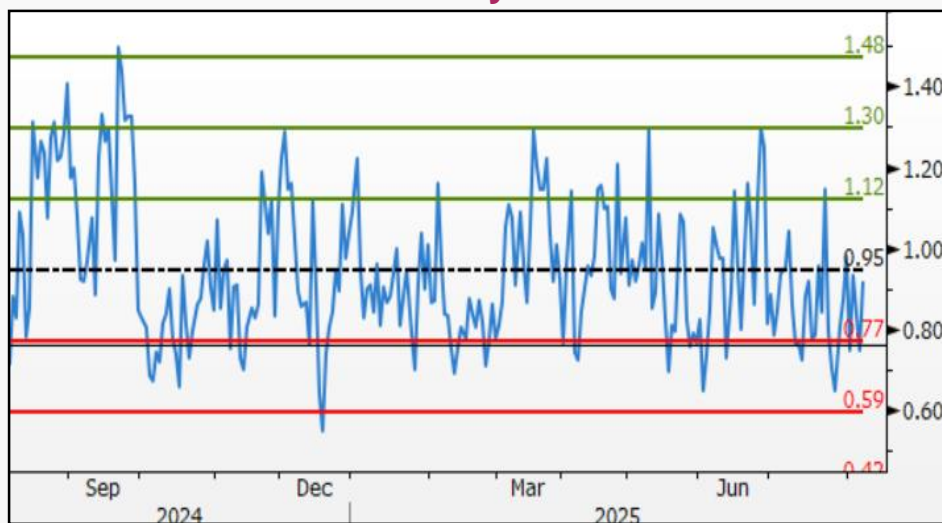
## Daily Net Open Interest Change



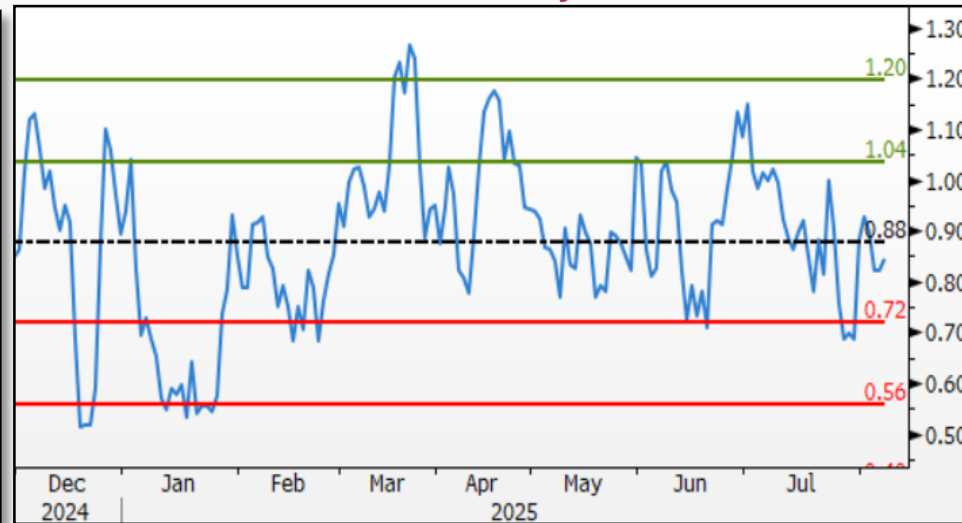
## DII and FII Daily Cash Market Flows



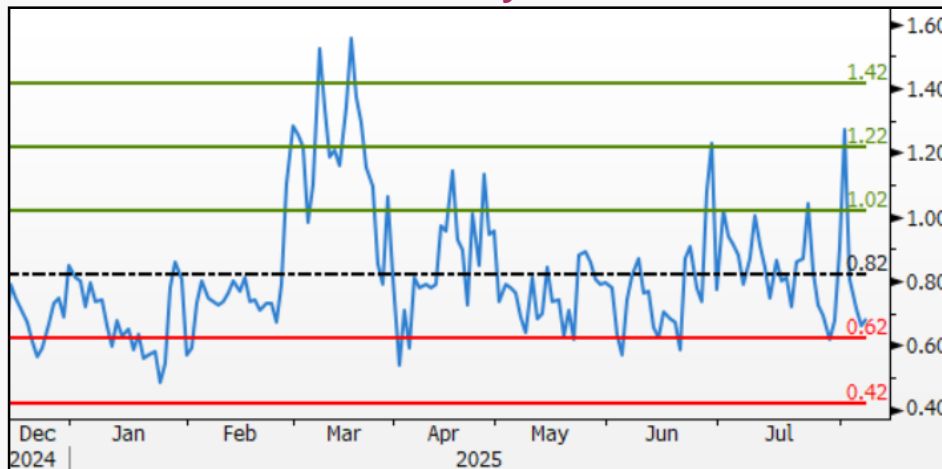
## Nifty



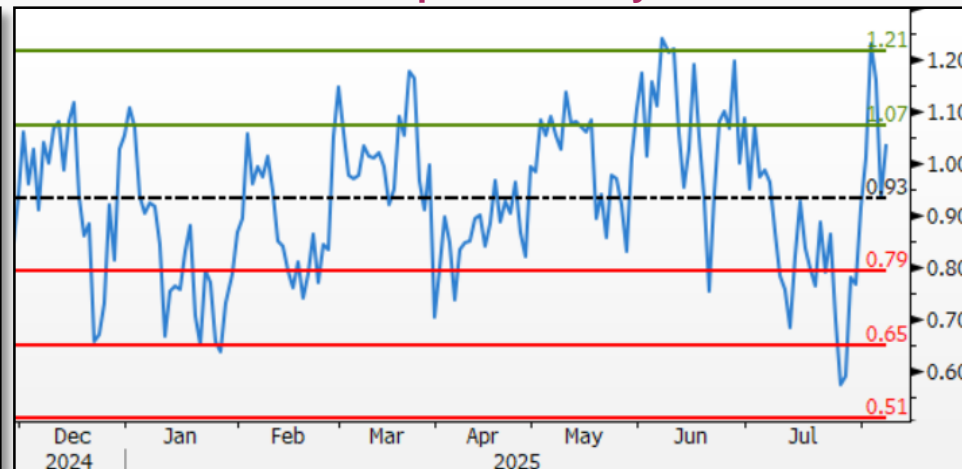
## Bank Nifty



## Fin Nifty

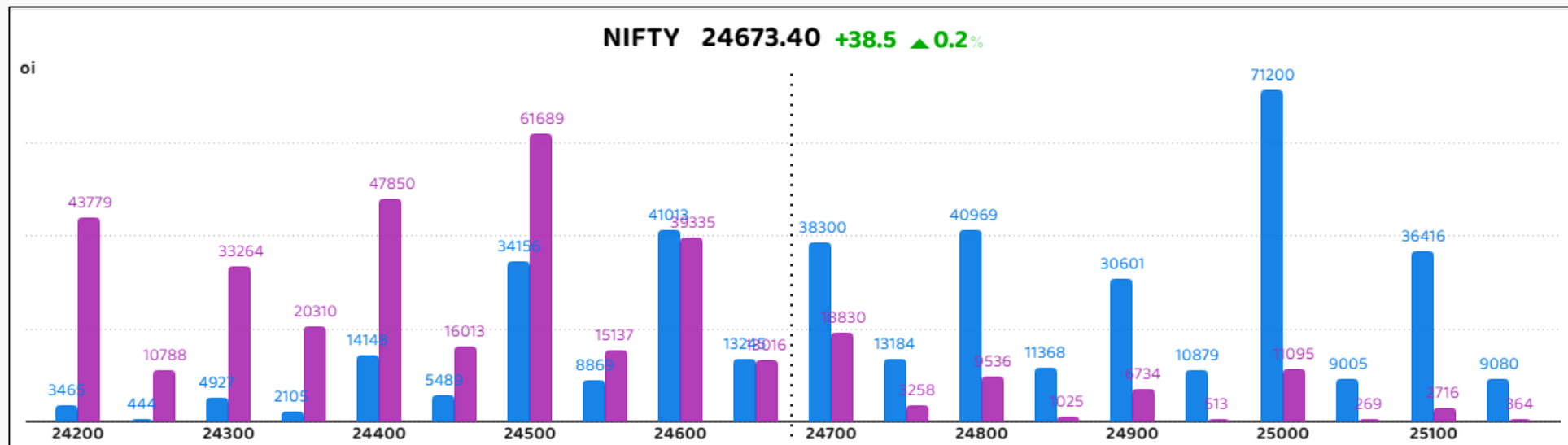


## Midcap Select Nifty



## 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.

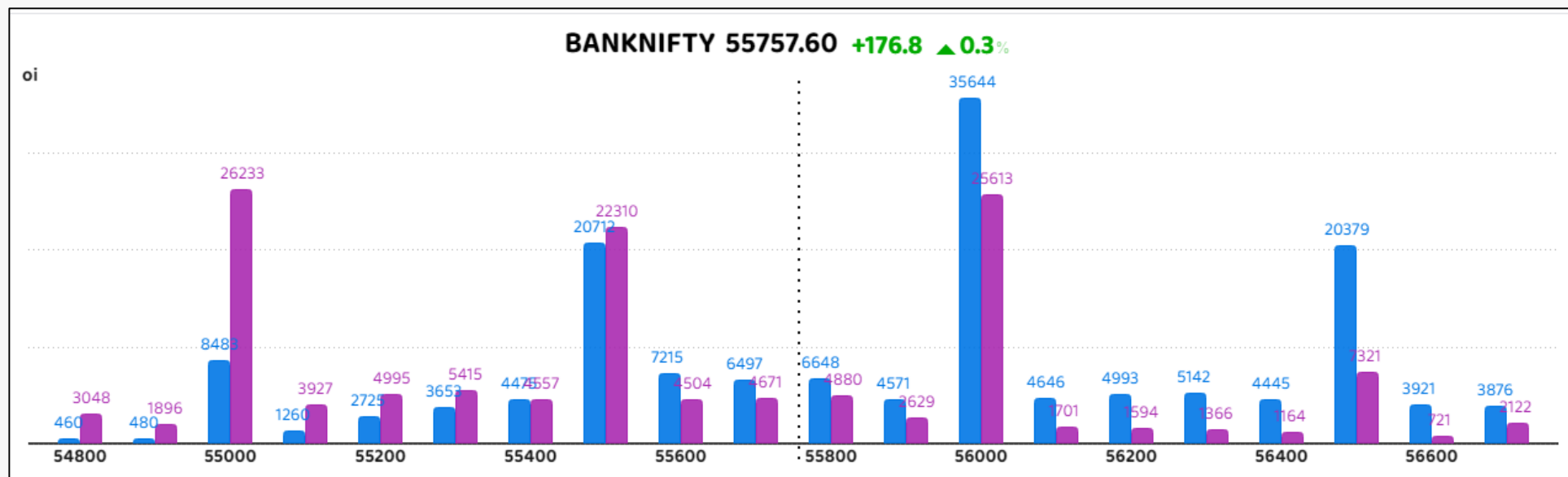
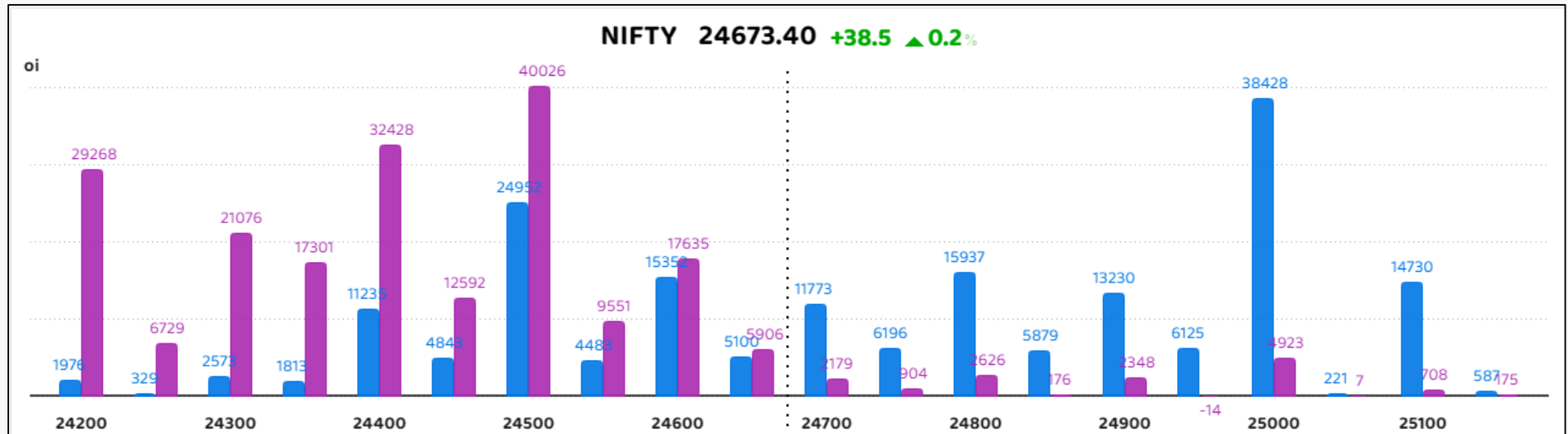


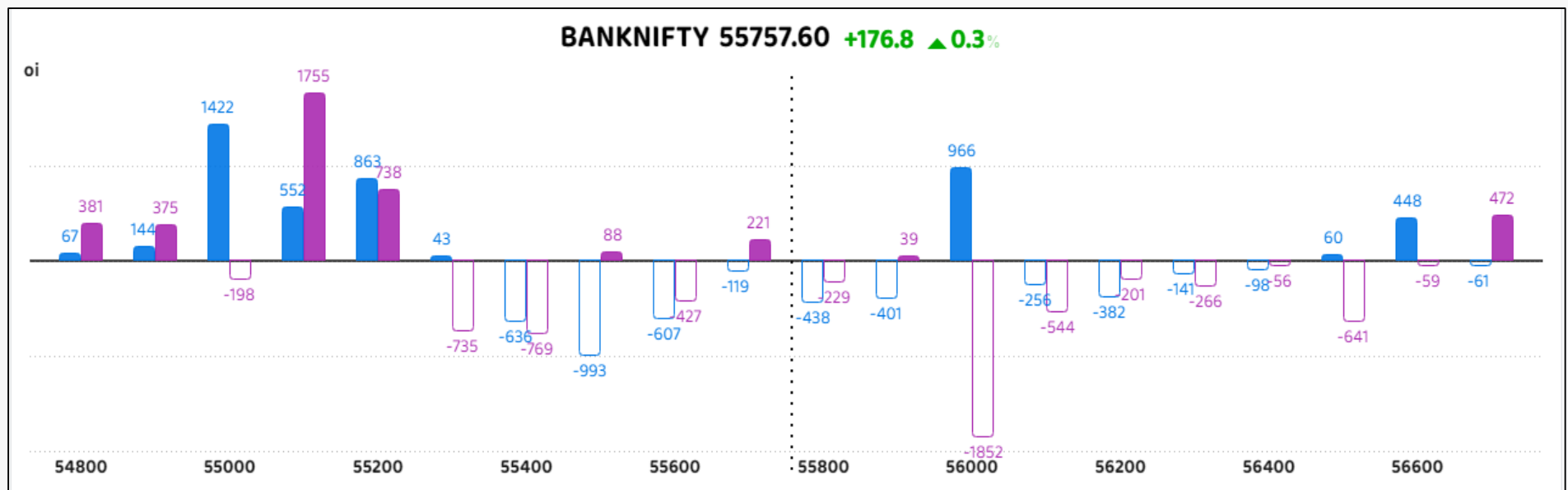
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,000 Call and the 24,500 Put



For the Bank Nifty, the biggest open interest changes were seen at the 56,000 Call & the 55,100 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
PG ELECTROPLAST	736.85	-2.0	50.5	51.3	35.6	95.1
UNO MINDA LTD	1107.1	1.9	39.6	43.6	26.5	76.8
BOSCH LTD	38570	0.8	27.7	36.2	2.1	75.0
ASTRAL LTD	1415.9	-0.2	28.9	40.4	2.9	69.3
TITAN CO LTD	3415.7	-0.1	23.0	33.5	2.3	66.3

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ULTRATECH CEMENT	12273	0.4	17.0	31.0	17.0	0.0
SBI LIFE	1861.1	0.4	17.6	32.5	17.6	0.0
OBEROI REALTY	1610.5	0.4	21.6	50.6	21.6	0.0
BALKRISHNA INDS	2425	1.0	17.4	42.7	17.4	0.0
INDIAN HOTELS	742.3	-0.6	22.6	46.4	22.6	0.2



## Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
PG ELECTROPLAST	736.85	-2.0	50.5	51.3	35.6	98.9
UNO MINDA LTD	1107.1	1.9	39.6	43.6	26.5	89.5
GODREJ CONSUMER	1220	1.4	29.4	38.0	18.7	88.5
IEX	133.46	1.0	40.4	76.3	25.8	86.7
INDIAN OIL CORP	141.67	-0.4	32.0	42.1	22.8	85.7

## Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ULTRATECH CEMENT	12273	0.4	17.0	31.0	17.0	0.0
SBI LIFE	1861.1	0.4	17.6	32.5	17.6	0.0
OBEROI REALTY	1610.5	0.4	21.6	50.6	21.6	0.0
BALKRISHNA INDS	2425	1.0	17.4	42.7	17.4	0.0
INDIAN HOTELS	742.3	-0.6	22.6	46.4	22.6	0.5

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
ADITYA BIRLA FASHION	76.12	-0.4	11366	2258	5.0
GRANULES INDIA	450	2.4	11223	2861	3.9
TUBE INVESTMENTS	2942.9	-0.6	3789	1129	3.4
CESC LTD	165.84	2.7	13229	3999	3.3
PIDILITE INDS	3050.8	0.3	40892	12925	3.2

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
ZYDUS LIFESCIENCES	944.45	1.3	1981	2600	1.3
DR REDDY'S LABS	1200.80	0.3	11355	12620	1.1
SUN PHARMA	1598.40	0.2	36809	39398	1.1
CIPLA LTD	1491.00	0.3	11828	12240	1.0
AUROBINDO PHARMA	1065.60	-0.3	10690	10853	1.0

## Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
NUVAMA WEALTH	6946.5	-0.2	1218	1218	100.0
PG ELECTROPLAST	736.85	-2.0	3418	3418	100.0
KAYNES TECHNOLOGY	6089.0	1.0	9442	9607	98.3

## 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	1107.1	1.9	1865	1865	100.0
PG ELECTROPLAST	736.85	-2.0	2088	2088	100.0
KAYNES TECHNOLOGY	6089	1.0	5469	5584	97.9
PIRAMAL PHARMA	191.85	3.0	1690	2092	80.8
PNB HOUSING FINANCE	758.7	-2.1	9327	11631	80.2

### Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
FORTIS HEALTHCARE	884	3.0	37217	37217	100.0
JINDAL STAINLESS	724.6	-1.3	9738	10584	92.0

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
FORTIS HEALTHCARE	884	3.0	12648	12648	100.0
PG ELECTROPLAST	736.85	-2.0	3631	4213	86.2
BLUE STAR LTD	1827.5	3.2	8836	10822	81.7

### Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
PNB HOUSING FINANCE	758.7	-2.1	16761	8295	2.0
BRITANNIA INDS	5476.5	1.4	11162	5922	1.9
KAYNES TECHNOLOGY	6089	1.0	9442	6323	1.5
PIDILITE INDS	3050.8	0.3	5579	3862	1.4
DIVI LABS LTD	6131.5	0.0	15760	11191	1.4

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
PNB HOUSING FINANCE	758.7	-2.1	9327	4697	2.0
BRITANNIA INDS	5476.5	1.4	6053	3486	1.7
KAYNES TECHNOLOGY	6089	1.0	5469	3331	1.6
UNO MINDA LTD	1107.1	1.9	1865	1156	1.6
DIVI LABS LTD	6131.5	0.0	10383	6495	1.6

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
PIDILITE INDS	3050.8	0.3	40892	6258	6.5
FORTIS HEALTHCARE	884	3.0	37217	6639	5.6
BHEL	227.97	-4.9	68901	12641	5.5
LUPIN LTD	1944.2	5.0	60310	13883	4.3
CONTAINER CORP	553.6	-0.2	23035	5490	4.2

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
BHEL	227.97	-4.9	45841	7454	6.1
PIDILITE INDS	3050.8	0.3	12925	2155	6.0
LUPIN LTD	1944.2	5.0	40750	7169	5.7
CONTAINER CORP	553.6	-0.2	15675	2817	5.6
FORTIS HEALTHCARE	884	3.0	12648	2872	4.4

## 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	1722900	15.6%	2250	2700	1308300	20.0%	ITC	420	15291200	1.5%	414	410	4572800	-0.9%
ADANIPTS	1400	2147000	4.1%	1345	1400	1310525	4.1%	JIOFIN	350	10116750	7.5%	326	310	4993750	-4.8%
APOLLOHOSP	7500	155125	4.6%	7170	7000	51125	-2.4%	JSWSTEEL	1060	1018575	-0.5%	1065	920	579825	-13.6%
ASIANPAINT	2500	899750	-0.3%	2507	2400	444250	-4.2%	KOTAKBANK	2200	1384000	10.4%	1992	2000	723600	0.4%
AXISBANK	1100	3082500	2.2%	1076	1100	1353125	2.2%	LT	3700	952350	1.6%	3642	3600	449750	-1.1%
BAJAJ-AUTO	9000	197175	9.4%	8229	8000	151200	-2.8%	M&M	3400	1781800	5.9%	3211	3100	1402000	-3.5%
BAJAJFINSV	2000	988500	4.5%	1914	1720	538500	-10.1%	MARUTI	13000	265200	2.9%	12632	12000	86500	-5.0%
BAJFINANCE	900	7178250	2.4%	879	900	3643500	2.4%	NESTLEIND	2300	408000	2.9%	2235	2100	187250	-6.0%
BEL	400	9325200	3.2%	388	390	4622700	0.6%	NTPC	340	11371500	3.1%	330	380	1833000	15.2%
BHARTIARTL	2000	2850475	4.0%	1923	1900	794200	-1.2%	ONGC	235	15239250	0.5%	234	235	4281750	0.5%
CIPLA	1600	686625	7.3%	1491	1340	365250	-10.1%	POWERGRID	300	6460000	5.1%	286	280	1586500	-1.9%
COALINDIA	400	6178950	5.4%	380	370	2899800	-2.5%	RELIANCE	1400	9376500	0.8%	1389	1400	5314500	0.8%
DRREDDY	1300	1688125	8.3%	1201	1080	593125	-10.1%	SBILIFE	1900	1207125	2.1%	1861	1800	168375	-3.3%
EICHERMOT	5800	150500	2.1%	5682	5800	150150	2.1%	SBIN	820	12999750	1.8%	805	800	7410000	-0.6%
ETERNAL	320	7122225	6.0%	302	300	5698750	-0.6%	SHRIRAMFIN	700	1712700	11.6%	627	600	940500	-4.4%
GRASIM	3100	235000	13.0%	2744	2700	139250	-1.6%	SUNPHARMA	1700	1032850	6.4%	1598	1500	1050350	-6.2%
HCLTECH	1500	926100	1.7%	1476	1460	444500	-1.1%	TATACONSUM	1100	828850	4.5%	1053	1000	419650	-5.0%
HDFCBANK	2000	2010800	0.2%	1995	2000	2592150	0.2%	TATAMOTORS	700	5767200	8.3%	647	800	2586400	23.7%
HDFCLIFE	800	2008600	5.9%	756	660	784300	-12.7%	TATASTEEL	180	22005500	12.7%	160	160	7430500	0.2%
HEROMOTOCO	4600	638250	-1.3%	4661	4600	321450	-1.3%	TCS	3200	2551325	5.0%	3047	3000	1117200	-1.5%
HINDALCO	700	2279200	1.9%	687	680	891800	-1.0%	TECHM	1600	1044000	8.0%	1482	1300	486000	-12.3%
HINDUNILVR	2600	2059500	3.3%	2518	2400	688200	-4.7%	TITAN	3400	546000	-0.5%	3416	3400	410550	-0.5%
ICICIBANK	1500	3567200	4.1%	1440	1400	1316000	-2.8%	TRENT	5500	544000	3.7%	5304	5000	257200	-5.7%
INDUSINDBK	900	2615900	11.5%	807	800	1624700	-0.9%	ULTRACEMCO	12300	98550	0.2%	12273	12000	36800	-2.2%
INFY	1600	3678800	11.4%	1437	1400	1708800	-2.6%	WIPRO	270	7551000	11.4%	242	250	3288000	3.2%

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](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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