



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	24,675	0.6%▼
Open Interest (OI)	1,63,40,100	5.0%▲
Change in OI (abs)	1,63,40,100	7,77,000▲
Premium / Discount (Abs)	133	23▲
<b>Inference</b>	<b>Short Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	55,931	0.4%▼
Open interest (OI)	21,31,555	6.1%▲
Change in OI (abs)	21,31,555	1,22,825▲
Premium / Discount (Abs)	331	54▲
<b>Inference</b>	<b>Short Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	16.55	0.61▼
Nifty ATM IV (%)	16.06	0.3▼
Bank Nifty ATM IV (%)	16.54	0.3▼
PCR (Nifty)	0.65	0.17▼
PCR (Bank Nifty)	0.87	0.17▼

The Long Ratio for FII Index Futures **slide** at 16.7%, **down** from 18.7% in the **last session..**

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BDL	11,35,225	33.5%	1988.1	0.1%
CAMS	19,69,475	23.3%	4184.1	0.9%
FORTIS	14,14,375	23.3%	733.85	1.2%
MAZDOCK	11,23,675	16.2%	3446.5	1.3%
HINDZINC	92,43,850	13.5%	470.45	3.2%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KAYNES	85,600	95.4%	5733	-1.3%
BLUESTARCO	2,50,575	39.9%	1543.3	-0.8%
MANKIND	3,33,900	34.4%	2363.3	-2.7%
PPLPHARMA	21,05,000	23.1%	204.51	-1.2%
RVNL	31,28,125	20.9%	405.2	-0.8%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PAYTM	2,71,97,425	-4.9%	931.6	0.5%
CUMMINSIND	42,18,500	-4.7%	3331.1	0.1%
COLPAL	43,63,400	-4.1%	2485	0.1%
IRCTC	1,80,44,250	-3.5%	776.2	0.9%
CONCOR	1,51,42,000	-3.0%	786.05	0.9%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NBCC	3,83,08,100	-5.3%	124.19	-1.1%
CHOLAFIN	1,08,84,375	-3.1%	1572.3	-0.9%
NCC	1,09,94,425	-2.9%	235.62	-0.8%
SAIL	13,96,74,400	-2.5%	130.81	-0.4%
CANBK	21,90,10,500	-2.0%	116.28	-0.8%

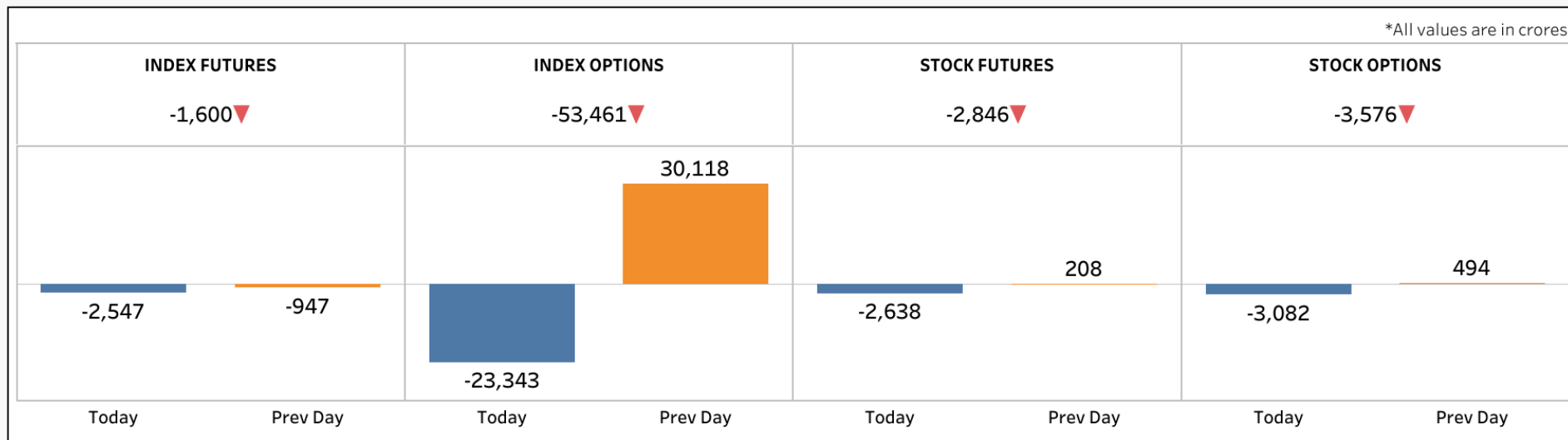
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Trends by Participant

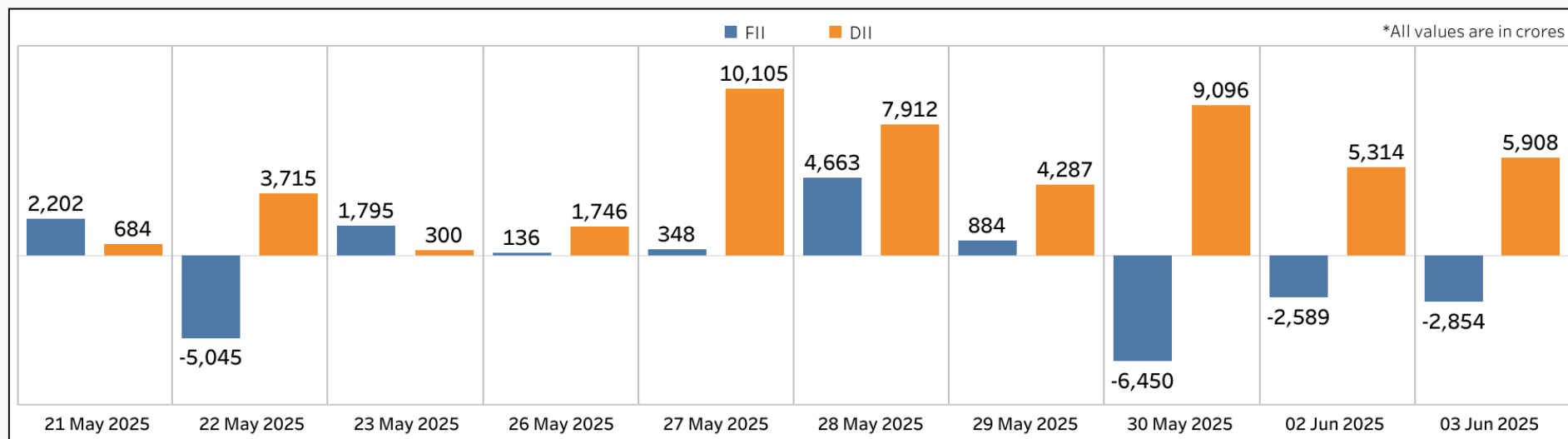
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-146,831 ▼	-8,706 ▼	-154,027 ▼	-49,520 ▼	0	-565 ▼	0	-4,286 ▼
72,335		92,969		0	4,807	0	
			6,020	0	5,372	0	
-74,496	-14,088	-61,058	-43,500				-28,055
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
129,647	-103,154	201,269	1,579,451	70	45,236	10,901	-4,022,737
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
416,141 ▲	7,227 ▲	184,843 ▲	47,127 ▲	-269,311 ▼	2,044 ▲	-30,813 ▼	6,679 ▲
192,993				150,813			
	7,413	88,832	60,875		1,868		
	186		13,748			3,040	10,680
-223,148		-96,011		-118,498	-176	-27,773	4,001
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-267,081	69,389	-306,547	2,032,301	137,363	-11,471	94,377	410,985
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day

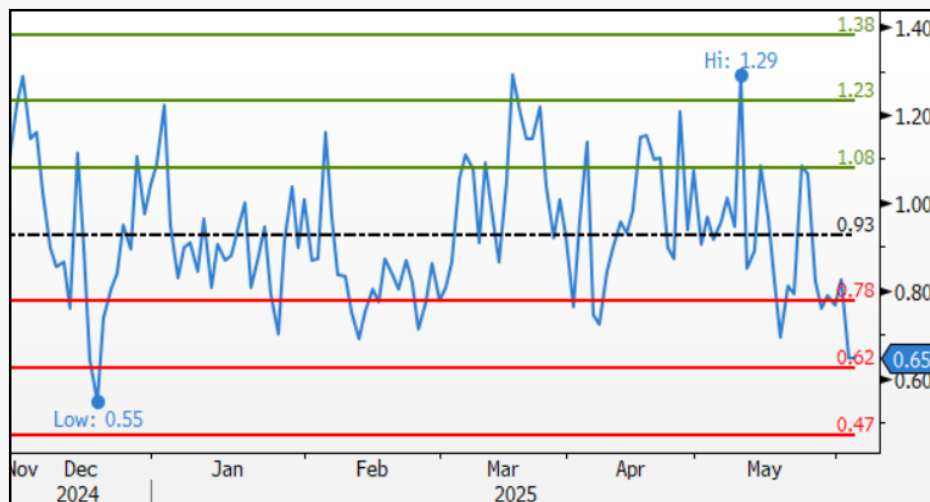
## Daily Net Open Interest Change



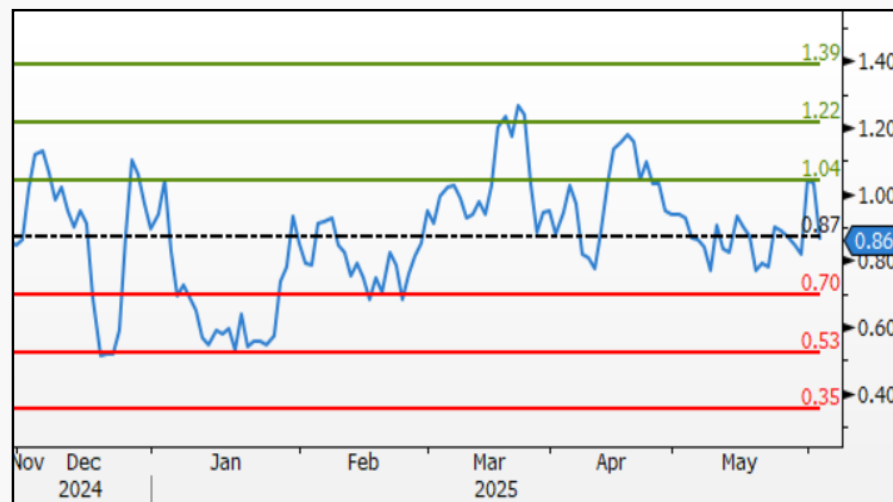
## DII and FII Daily Cash Market Flows



## Nifty



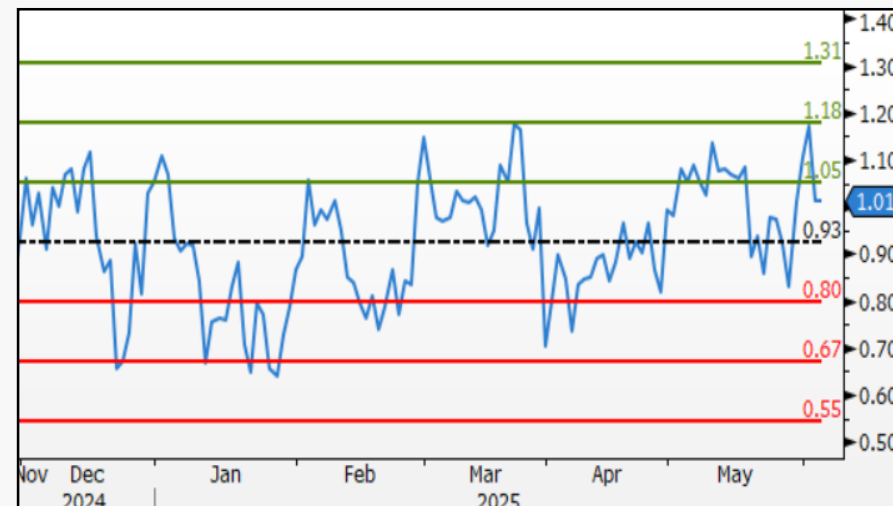
## Bank Nifty



## Fin Nifty

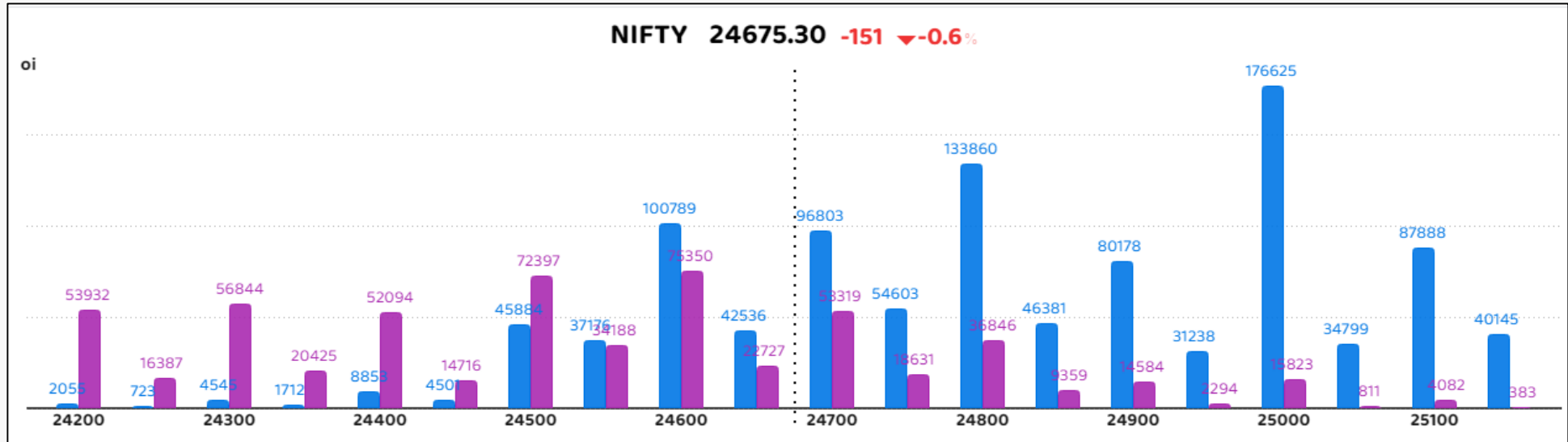


## Midcap Select Nifty



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

Call  Put 



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

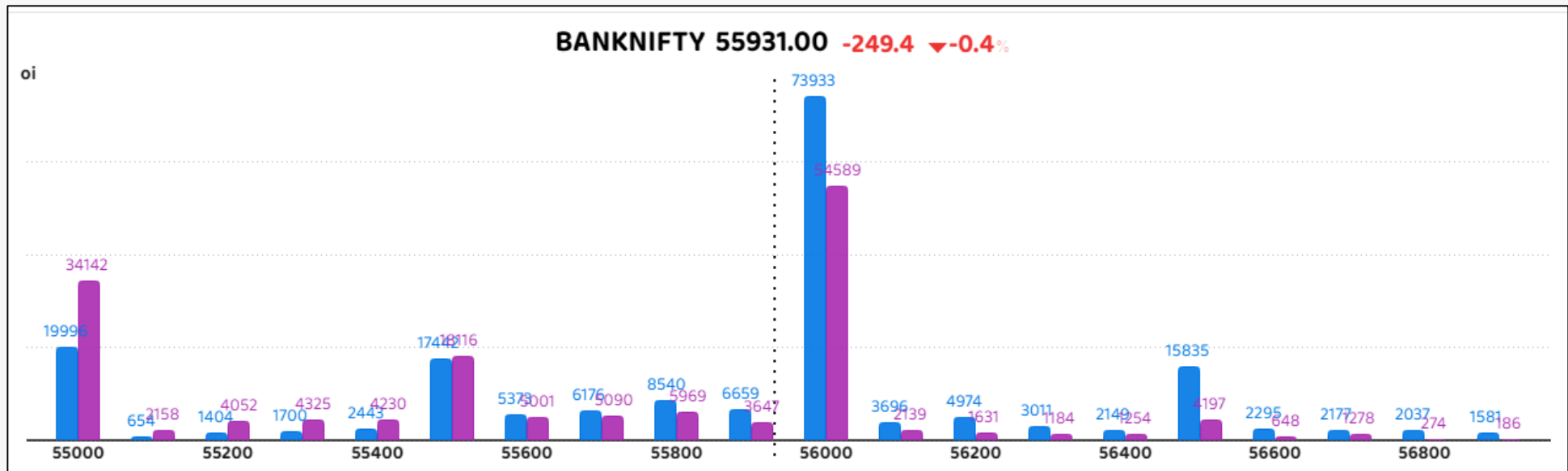
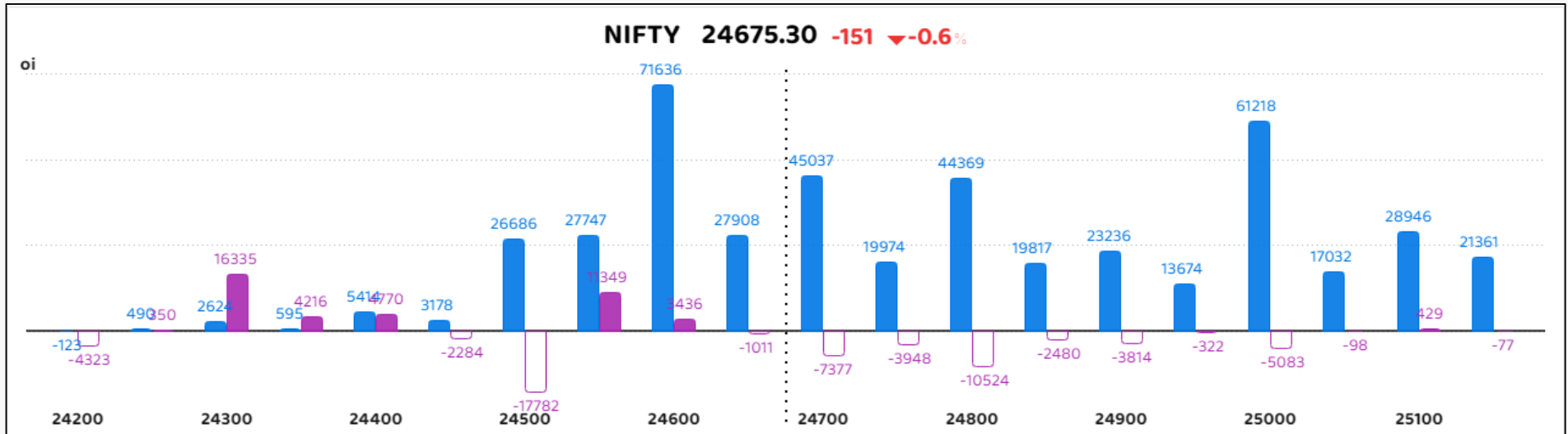


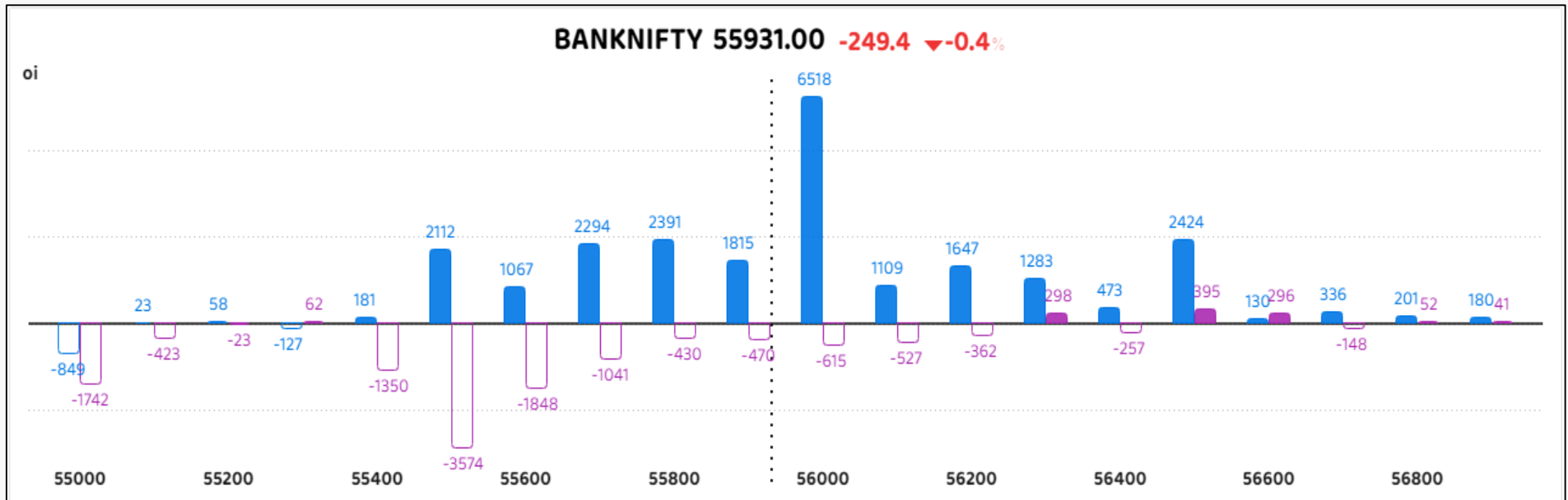
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



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



For the Bank Nifty, the biggest open interest changes were seen at the 56,000 Call & the 55,500 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ASTRAL LTD	1495.7	-0.9	29.6	38.4	2.9	75.1
MARUTI SUZUKI IN	12128	-1.3	21.2	29.9	0.4	70.6
DIXON TECHNOLOGI	14453	-1.1	37.1	53.0	1.8	68.9
BAJAJ AUTO LTD	8563	0.6	25.6	36.4	2.1	68.6
TITAN CO LTD	3519.8	-0.2	23.2	33.5	2.3	67.1

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
TATA ELXSI LTD	6407	-0.2	24.5	51.9	23.8	2.4
ADANI PORTS AND	1432.3	-2.4	25.5	99.7	23.2	3.0
TATA TECHNOLOGIE	767.5	-0.9	30.4	54.4	29.6	3.2
HDFC LIFE INSURA	757.9	-1.1	21.8	80.6	19.6	3.6
PATANJALI FOODS	1688.7	-0.5	26.1	65.0	24.7	3.7



## Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ADITYA BIRLA FAS	86	-1.8	40.0	60.3	9.9	90.3
HCL TECH LTD	1630.4	-0.1	26.5	46.0	17.9	78.1
FSN E-COMMERCE V	195.48	0.5	41.5	51.1	26.8	76.3
YES BANK LTD	20.86	-10.4	40.9	55.3	29.4	69.6
JINDAL STAINLESS	663.9	3.2	39.3	59.2	25.3	66.5

## Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INFOSYS LTD	1543	-0.7	11.7	60.8	4.9	1.4
HERO MOTOCORP LT	4208.6	-0.6	23.2	37.4	2.8	1.8
BHARTI AIRTEL	1841.3	-0.7	18.0	34.3	4.6	2.1
ADANI GREEN ENER	992.6	-1.6	43.6	74.3	41.1	2.3
PATANJALI FOODS	1688.7	-0.5	26.1	65.0	24.7	2.4

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
COMPUTER AGE MAN	4194.4	1.3	46009	8373	5.5
TATA CHEMICALS	905.4	1.0	19323	4216	4.6
CHAMBAL FERTILIS	561.9	1.2	21414	4680	4.6
BHARAT FORGE CO	1270.4	1.1	10203	2309	4.4
M&M FIN SERVICES	264	1.6	5328	1216	4.4

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
MARICO LTD	703.6	-0.1	1916	2234	1.2
MAX FINANCIAL SE	1513.2	-0.6	1345	1552	1.2
ICICI PRUDENTIAL	640.9	-3.5	6566	7262	1.1
BHARAT PETROL	309.75	-2.2	9161	8912	1.0
ADANI ENTERPRISE	2470.9	-1.9	35200	33807	1.0

## Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
FSN E-COMMERCE V	195.48	0.5	10459	10722	97.6
MANAPPURAM FINAN	237.17	-0.1	13704	15688	87.4
INDIAN BANK	632.4	-2.1	3678	4436	82.9

## Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
FSN E-COMMERCE V	195.48	0.5	3412	3412	100.0
CHAMBAL FERTILIS	561.9	1.2	4868	4868	100.0
INDIAN BANK	632.4	-2.1	2563	2821	90.9
CENTRAL DEPOSITO	1708.9	1.5	17822	19694	90.5
CUMMINS INDIA	3318.6	0.0	6771	8145	83.1

## 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
FSN E-COMMERCE V	195.48	0.5	10459	4229	2.5
BIRLASOFT LTD	397.4	-0.4	11404	6771	1.7
BAJAJ AUTO LTD	8563	0.6	32767	20857	1.6
APOLLO HOSPITALS	6812.5	-1.5	13174	8471	1.6
INDIAN RAILWAY C	771.5	0.7	15953	10292	1.6

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
ALKEM LABORATORI	4996.5	-2.0	3333	2129	1.6
LIC INSURANCE CO	953.65	-0.9	7726	5025	1.5
APOLLO HOSPITALS	6812.5	-1.5	7405	5003	1.5
FSN E-COMMERCE V	195.48	0.5	3412	2534	1.3
SOLAR INDUSTRIES	16619	2.0	6937	5224	1.3

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
UNITED SPIRITS	1579.6	2.0	45756	12872	3.6
AU SMALL FINANCE	728.3	1.3	19483	7451	2.6
FED BANK LTD	211.3	2.4	32278	12417	2.6
HDFC ASSET MANAG	4789.5	-0.7	20751	8869	2.3
GLENMARK PHARMA	1514	1.1	23652	10187	2.3

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
ICICI PRUDENTIAL	640.9	-3.5	7262	2427	3.0
GLENMARK PHARMA	1514	1.1	13108	5347	2.5
UNITED SPIRITS	1579.6	2.0	12990	5478	2.4
FED BANK LTD	211.3	2.4	12777	6181	2.1
APOLLO HOSPITALS	6812.5	-1.5	13211	8209	1.6

## 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	1370100	9.3%	2471	2700	1506300	9.3%	ITC	440	9302400	5.5%	417	420	5718400	0.7%
ADANIPTS	1500	1300000	4.7%	1432	1400	942000	-2.3%	JIOFIN	300	9670650	5.7%	284	290	3304950	2.1%
APOLLOHOSP	7000	332625	2.8%	6813	6800	120125	-0.2%	JSWSTEEL	1100	1101600	13.0%	974	980	697275	0.6%
ASIANPAINT	2400	853000	6.4%	2256	2300	553000	2.0%	KOTAKBANK	2100	1105200	2.7%	2045	1820	491200	-11.0%
AXISBANK	1250	3954375	5.8%	1182	1200	1321250	1.6%	LT	3800	875250	4.3%	3645	3500	365550	-4.0%
BAJAJ-AUTO	9000	375450	5.1%	8563	8000	147525	-6.6%	M&M	3200	786450	5.0%	3047	3000	325850	-1.5%
BAJAJFINSV	2100	872000	5.4%	1992	1900	525500	-4.6%	MARUTI	12500	368700	3.1%	12128	12000	83400	-1.1%
BAJFINANCE	10000	361750	11.4%	8979	8500	307125	-5.3%	NESTLEIND	2500	228600	4.5%	2391	2200	124800	-8.0%
BEL	400	9735600	3.6%	386	360	4645500	-6.7%	NTPC	350	7941000	6.6%	328	340	2565000	3.6%
BHARTIARTL	1880	2837175	2.1%	1841	1840	808450	-0.1%	ONGC	250	9942625	5.4%	237	240	1701700	1.2%
CIPLA	1640	601250	11.3%	1473	1320	381875	-10.4%	POWERGRID	300	4420800	4.1%	288	270	3826800	-6.3%
COALINDIA	400	4524450	1.8%	393	400	2785650	1.8%	RELIANCE	1500	5318500	6.7%	1406	1400	2326000	-0.4%
DRREDDY	1300	1278750	4.1%	1248	1200	301250	-3.9%	SBILIFE	1860	1059375	4.8%	1775	1800	251625	1.4%
EICHERMOT	5500	189525	2.7%	5354	5000	137900	-6.6%	SBIN	850	10922250	5.0%	810	800	5101500	-1.2%
ETERNAL	250	5678000	5.2%	238	220	5158000	-7.4%	SHRIRAMFIN	720	744000	11.1%	648	600	385500	-7.4%
GRASIM	2600	309250	1.9%	2552	2500	204750	-2.1%	SUNPHARMA	1700	1274000	1.9%	1668	1600	703850	-4.0%
HCLTECH	1820	557900	11.6%	1630	1600	257250	-1.9%	TATACONSUM	1200	656184	7.7%	1115	1100	184680	-1.3%
HDFCBANK	2000	5163950	3.9%	1925	1900	1945900	-1.3%	TATAMOTORS	800	5597350	13.7%	704	700	2443100	-0.5%
HDFCLIFE	800	2725800	5.6%	758	750	885500	-1.0%	TATASTEEL	165	17083000	4.9%	157	150	9861500	-4.7%
HEROMOTOCO	4400	584550	4.5%	4209	3700	130050	-12.1%	TCS	3500	1195250	2.8%	3405	3500	596400	2.8%
HINDALCO	700	4415600	10.8%	632	600	1883000	-5.1%	TECHM	1600	574800	3.6%	1544	1360	472200	-11.9%
HINDUNILVR	2400	1800600	2.0%	2352	2300	507600	-2.2%	TITAN	3600	279475	2.3%	3520	3500	232050	-0.6%
ICICIBANK	1470	2618700	2.2%	1438	1400	1633100	-2.6%	TRENT	5700	349100	2.0%	5590	5500	195600	-1.6%
INDUSINDBK	820	4018500	2.4%	801	700	1892500	-12.6%	ULTRACEMCO	12000	218950	8.7%	11035	9800	118950	-11.2%
INFY	1600	2379200	3.7%	1543	1600	968400	3.7%	WIPRO	250	7197000	1.5%	246	250	4398000	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*

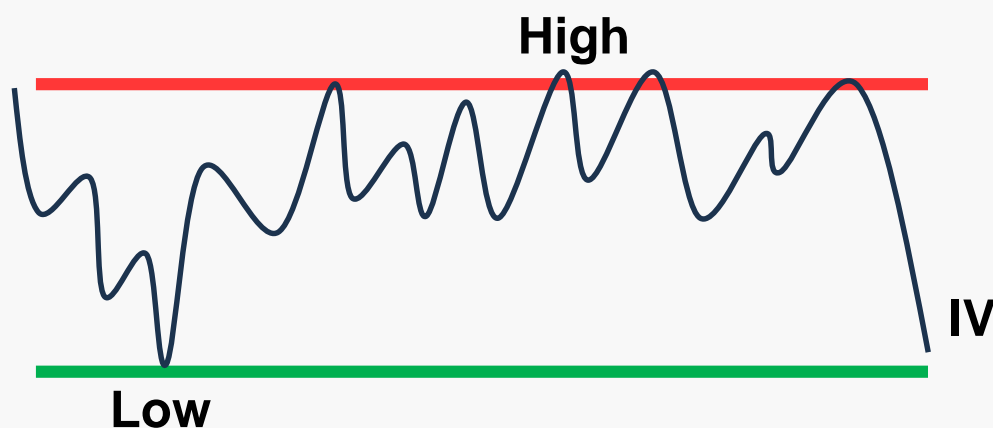


- **Volume:** Number of contracts traded for the day. If A bought 10 calls & B sold 10 calls, the volume for the day is 10 contracts
- **Open Interest:** The number of derivatives contracts that are open (have not been closed out). If A bought 10 calls, B bought another 10 calls and C sold 20 calls, 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](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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