



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	23,452	0.3%▼
Open Interest (OI)	2,15,65,960	0.5%▼
Change in OI (abs)	2,15,65,960	1,07,770▼
Premium / Discount (Abs)	85	10▼
<b>Inference</b>	<b>Long Unwinding</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	54,782	0.30%▲
Open interest (OI)	27,10,200	1.3%▲
Change in OI (abs)	26,10,200	34,080▲
Premium / Discount (Abs)	285	23▼
<b>Inference</b>	<b>Long Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	15.79	0.09▼
Nifty ATM IV (%)	14.61	0.14▼
Bank Nifty ATM IV (%)	18.61	0.04▼
PCR (Nifty)	0.83	0.17▼
PCR (Bank Nifty)	0.87	0.00▲

The FII Long Ratio in Index Futures **Drop to 8.1%**, **down** from **8.8 %** in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CAMS	61,91,325	5.6%	766.65	0.1%
LTF	4,92,45,750	5.0%	267.75	0.6%
POLICYBZR	71,80,600	4.7%	1545.7	0.2%
ETERNAL	23,11,43,725	3.8%	258.5	0.8%
COFORGE	1,65,92,100	3.8%	1426.8	0.0%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
RADICO	1,49,250	6.2%	3517	-0.1%
DALBHARAT	38,71,725	4.0%	1693.9	-2.1%
BANKBARODA	12,85,01,100	3.8%	265.45	-2.7%
NAUKRI	1,52,07,300	3.7%	995.95	-2.1%
LTM	37,96,500	3.5%	4027.5	-0.9%

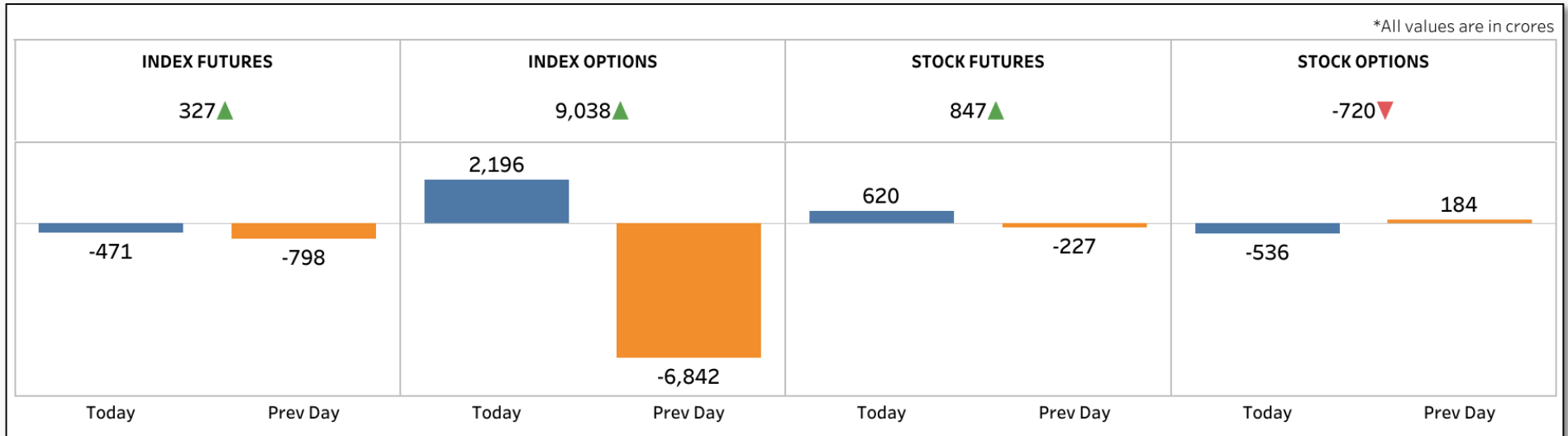
Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
INDIANB	1,49,37,000	-9.7%	843.2	1.4%
ADANIGREEN	2,11,14,000	-7.7%	1532.8	6.9%
AMBER	25,61,000	-4.6%	7856.5	1.6%
ICICIPRULI	1,78,05,325	-4.4%	487	1.8%
LICHSGFIN	2,90,45,000	-3.6%	552	0.7%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MCX	1,20,32,975	-3.6%	2808.5	-3.4%
PATANJALI	3,24,60,700	-3.4%	422.5	-1.6%
BSE	87,28,300	-3.2%	3904.7	-3.7%
HINDZINC	3,21,41,550	-2.4%	569.95	-6.1%
MARICO	1,52,91,600	-2.2%	814.45	-0.8%

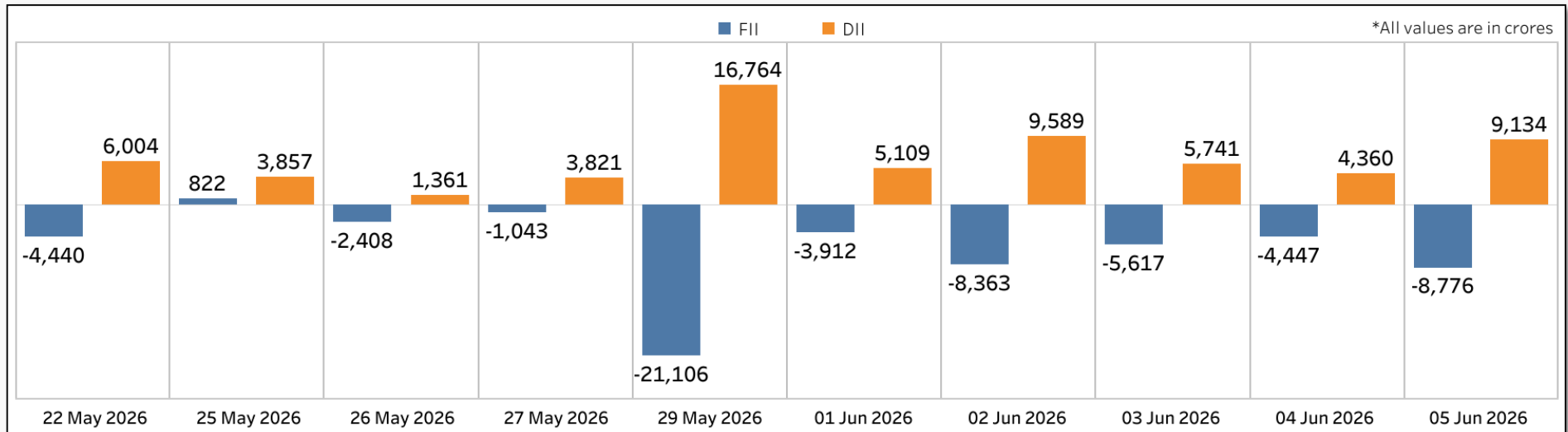
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix



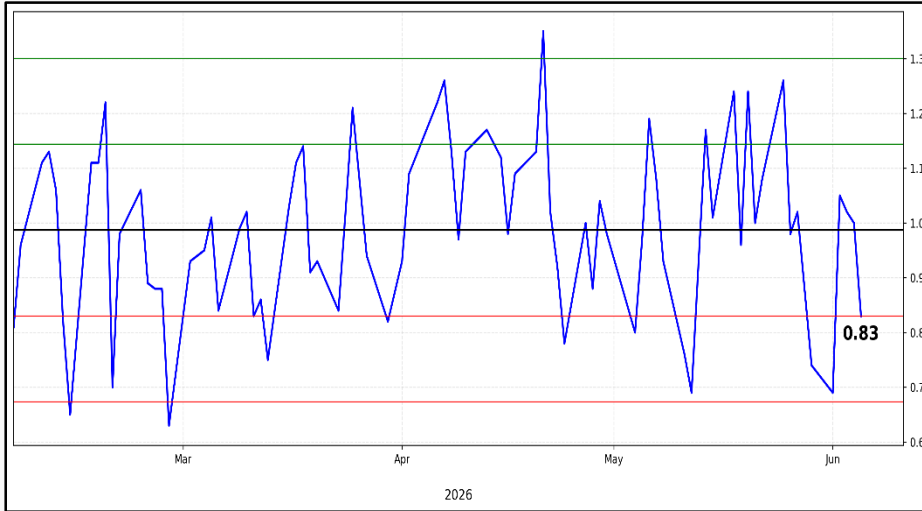
## Daily Net Open Interest Change



## DII and FII Daily Cash Market Flows



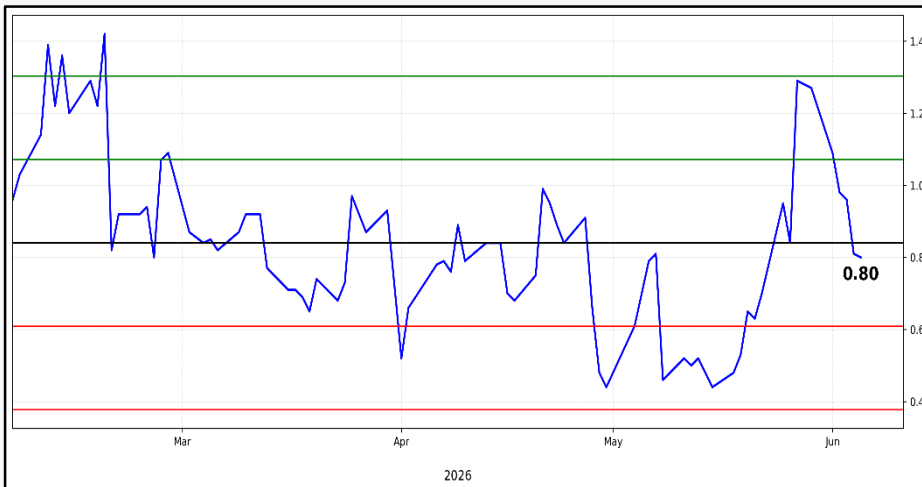
### Nifty



### Bank Nifty



### Fin Nifty



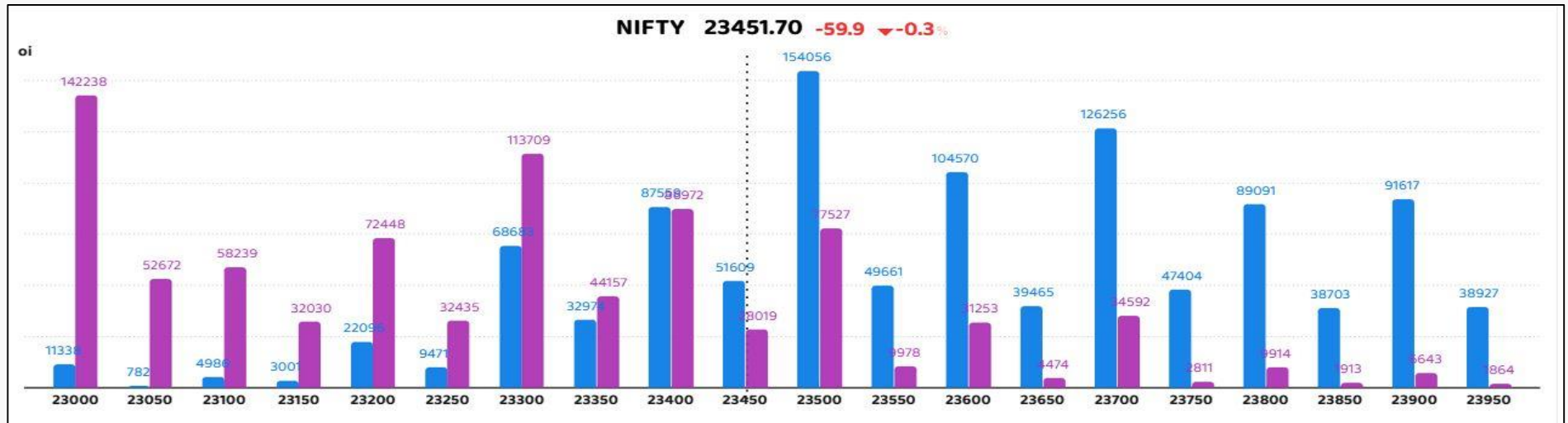
### Midcap Select Nifty



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 Nifty, the 23,500 Call and 23,000 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.

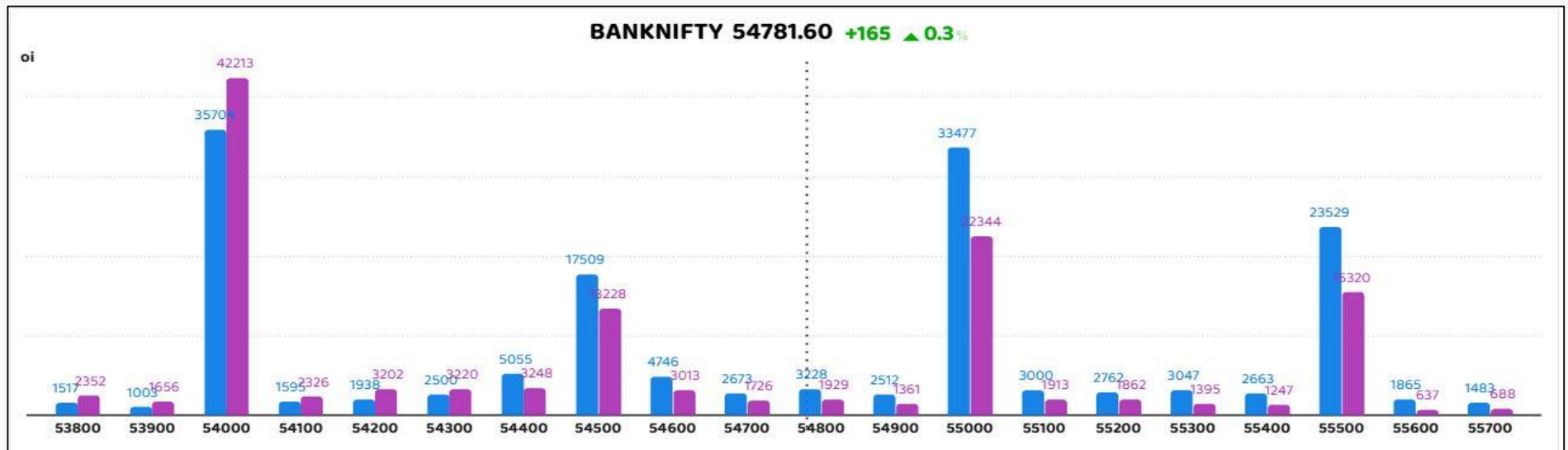
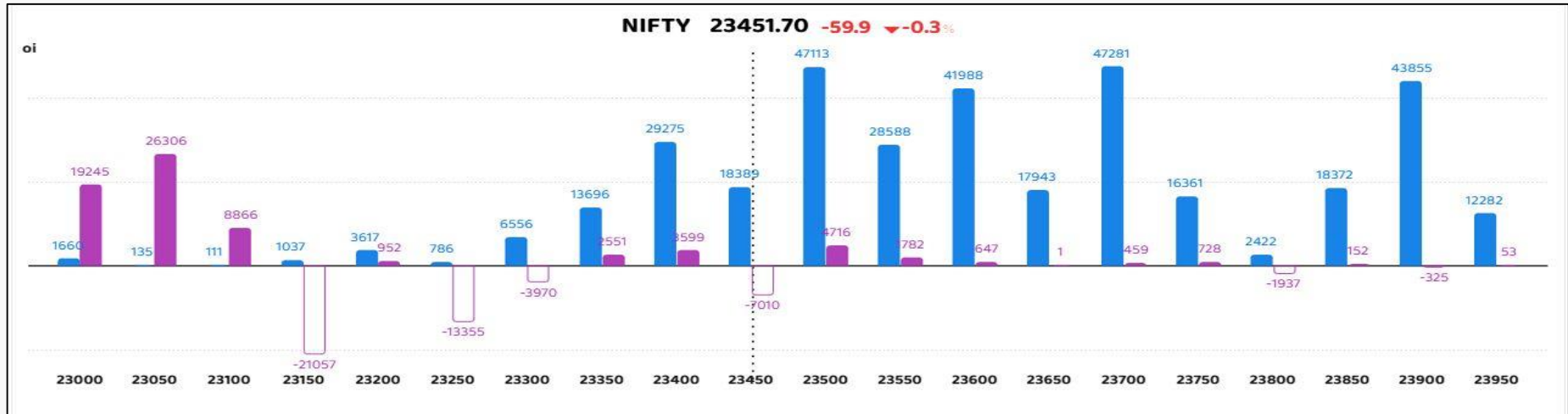


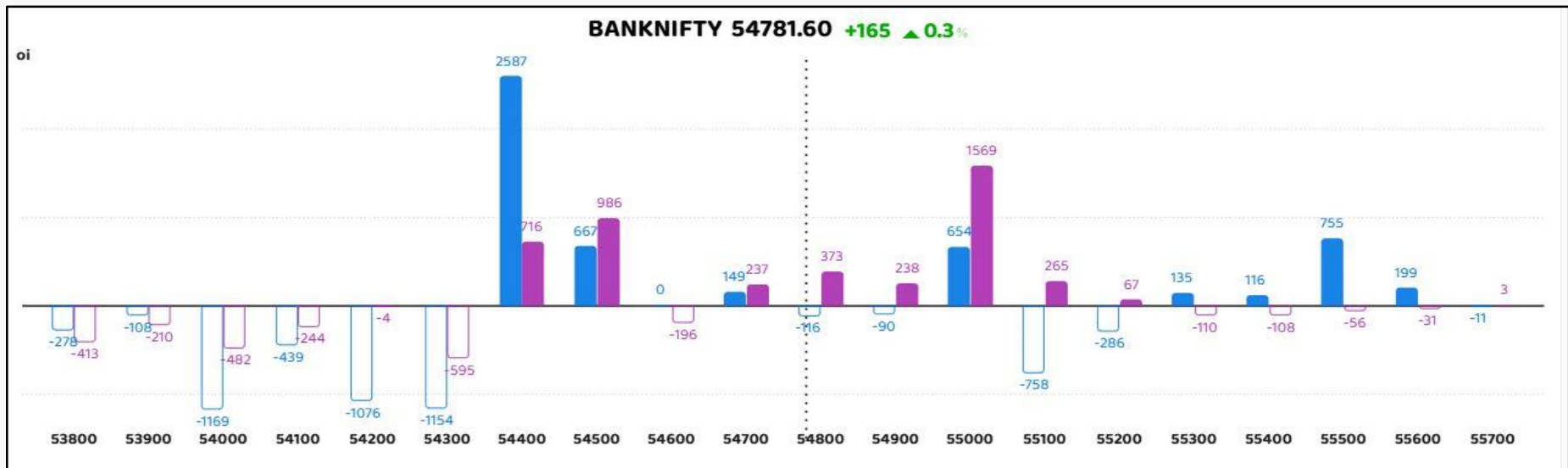
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23,700 Call and the 23,150 Put



For the Bank Nifty, the biggest open interest changes were seen at the 54,400 Call & the 54,000 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
VEDANTA LTD	315.6	-3.6	43.1	47.4	9.2	88.6
BHARAT HEAVY ELE	387.0	-0.6	39.4	45.1	5.2	85.6
WIPRO LTD	198.4	-2.9	57.2	68.1	2.1	83.5
TECH MAHINDRA LT	1483.5	-0.3	28.5	39.1	3.2	70.4
TATA CONSULTANCY	2198.9	-1.9	30.7	44.6	1.6	67.7

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
LARSEN & TOUBRO	3953.2	0.3	12.9	44.6	12.9	0.0
HINDALCO INDS	1092.6	-2.9	2.6	254.2	2.6	0.0
ASHOK LEYLAND	145.3	0.6	34.6	734.8	18.5	2.2
GAIL INDIA LTD	167.4	-0.1	21.2	91.4	19.4	2.6
ADITYA BIRLA CAP	357.5	1.1	31.6	658.6	8.2	3.6

## Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MAZAGON DOCK SHI	2423.1	-0.9	54.1	56.3	4.0	99.6
UNION BANK INDIA	167.0	0.3	47.4	48.2	15.5	99.5
WIPRO LTD	198.4	-2.9	57.2	68.1	2.1	98.9
FSN E-COMMERCE V	262.3	-2.0	40.3	50.7	22.8	97.0
VEDANTA LTD	315.6	-3.6	43.1	47.4	9.2	94.1

## Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
LARSEN & TOUBRO	3953.2	0.3	12.9	44.6	12.9	0.0
INDIAN RAILWAY F	96.5	0.4	9.6	120.5	9.6	0.0
ADANI GREEN ENER	1525.7	7.2	28.9	100.6	28.9	0.0
HINDALCO INDS	1092.6	-2.9	2.6	254.2	2.6	0.0
ANGEL ONE LTD	332.6	-1.5	21.0	75.8	21.0	0.0

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
MAZDOCK	2,423.0	-0.9	10,308.0	1,697.0	6.1
HDFCLIFE	575.3	0.3	27,386.0	4,630.0	5.9
LUPIN	2,267.7	0.8	23,699.0	4,071.0	5.8
BRITANNIA	5,120.5	0.6	8,373.0	1,471.0	5.7
GLENMARK	2,166.2	-0.7	5,211.0	1,138.0	4.6

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
COLPAL	1,999.5	-0.2	4,069.0	7,751.0	1.9
MPHASIS	2,330.0	0.6	2,010.0	3,497.0	1.7
BHARATFORG	1,929.8	-0.4	2,890.0	4,340.0	1.5
SUPREMEIND	3,602.0	-1.1	3,029.0	4,328.0	1.4
ASTRAL	1,518.8	-2.0	3,304.0	4,631.0	1.4

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
CONCOR	451.0	-0.7	10,514.0	10,206.0	100.0
NHPC	75.0	-1.5	16,439.0	15,590.0	100.0
GLENMARK	2,166.2	-0.7	10,054.0	9,543.0	100.0
SBICARD	589.6	0.0	14,064.0	13,388.0	100.0
WIPRO	198.4	-2.9	65,764.0	63,850.0	100.0

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
PATANJALI	420.5	-1.6	6,594.0	6,293.0	100.0
ASHOKLEY	145.3	0.6	17,001.0	16,755.0	100.0
GLENMARK	2,166.2	-0.7	6,899.0	6,795.0	100.0
NATIONALUM	395.7	-4.4	10,118.0	10,099.0	100.0
DIVISLAB	6,623.0	0.4	12,294.0	11,419.0	100.0

### Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
BANKBARODA	263.7	-2.8	44,939.0	72,084.0	62.3
NBCC	106.4	2.2	10,696.0	17,958.0	59.6
RECLTD	343.9	2.6	44,639.0	77,714.0	57.4
PNB	106.8	1.1	35,032.0	61,074.0	57.4
BAJFINANCE	889.4	1.7	96,140.0	172,555.0	55.7

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
HINDZINC	566.8	-6.1	37,151.0	43,351.0	85.7
NATIONALUM	395.7	-4.4	15,294.0	23,004.0	66.5
NMDC	92.9	-1.9	9,812.0	18,150.0	54.1
PATANJALI	420.5	-1.6	8,094.0	15,768.0	51.3
ADANIENT	3,048.2	2.5	36,789.0	73,491.0	50.1

**Call Open Interest to 20-day Average**

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
MCX	2,796.0	-3.4	23,841.0	12,932.6	1.8
CONCOR	451.0	-0.7	10,514.0	5,912.0	1.8
SAIL	190.6	-3.4	3,376.0	2,021.4	1.7
ALKEM	5,251.5	-0.5	6,075.0	3,716.9	1.6
NHPC	75.0	-1.5	16,439.0	10,077.5	1.6

**Put Open Interest to 20-day Average**

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
NHPC	75.0	-1.5	10,701.0	5,211.0	2.1
ALKEM	5,251.5	-0.5	3,274.0	1,820.1	1.8
DIVISLAB	6,623.0	0.4	12,294.0	6,970.7	1.8
BOSCHLTD	37,240.0	0.6	6,191.0	3,742.0	1.7
PATANJALI	420.5	-1.6	6,594.0	4,060.4	1.6

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
SAIL	190.6	-3.4	4,381.0	979.5	4.5
BAJFINANCE	889.4	1.7	96,140.0	29,335.6	3.3
BANKBARODA	263.7	-2.8	44,939.0	15,976.2	2.8
RECLTD	343.9	2.6	44,639.0	16,303.0	2.7
PNB	106.8	1.1	35,032.0	13,002.6	2.7

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SAIL	190.6	-3.4	1,792.0	482.6	3.7
PATANJALI	420.5	-1.6	8,094.0	2,223.4	3.6
HINDZINC	566.8	-6.1	37,151.0	15,125.4	2.5
BAJFINANCE	889.4	1.7	35,175.0	17,387.0	2.0
NATIONALUM	395.7	-4.4	15,294.0	7,669.2	2.0

## 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	3000	1491852	-1.6%	3048	2900	606876	-4.9%	JIOFIN	250	7858400	5.5%	237	230	4763450	-2.9%
ADANIPTS	1900	1299600	4.2%	1824	1800	579975	-1.3%	JSWSTEEL	1440	481950	12.1%	1284	1200	396900	-6.5%
APOLLOHOSP	9000	152250	8.4%	8305	7500	88125	-9.7%	KOTAKBANK	400	6346000	6.0%	377	370	3882000	-2.0%
ASIANPAINT	2800	885000	4.2%	2687	2300	325500	-14.4%	LT	4100	877625	3.7%	3953	4000	805350	1.2%
AXISBANK	1400	1936875	10.0%	1272	1300	955000	2.2%	M&M	3200	805600	5.2%	3041	3000	495200	-1.3%
BAJAJ-AUTO	11000	282975	6.4%	10342	10000	94800	-3.3%	MARUTI	14000	176350	7.3%	13050	12500	108300	-4.2%
BAJAJFINSV	1780	1282750	4.5%	1703	1700	615250	-0.2%	MAXHEALTH	1100	1629075	12.6%	977	950	296625	-2.8%
BAJFINANCE	900	3644250	1.2%	889	900	1641000	1.2%	NESTLEIND	1400	301000	1.0%	1386	1400	149000	1.0%
BEL	450	6651900	10.2%	408	400	3680775	-2.0%	NTPC	400	10591500	10.6%	362	400	2197500	10.6%
BHARTIARTL	1900	2832425	5.7%	1798	1800	1004150	0.1%	ONGC	300	10561500	13.3%	265	280	4018500	5.8%
CIPLA	1540	388500	9.9%	1401	1280	573000	-8.7%	POWERGRID	300	7474600	5.0%	286	300	2183100	5.0%
COALINDIA	500	6432750	5.9%	472	460	5814450	-2.6%	RELIANCE	1400	10053000	8.4%	1291	1300	4794000	0.7%
DRREDDY	1340	969375	4.8%	1278	1200	746250	-6.1%	SBILIFE	1900	359625	6.6%	1783	1700	332625	-4.6%
EICHERMOT	8000	209300	13.2%	7070	6800	142900	-3.8%	SBIN	1000	12252000	2.3%	978	1000	3918000	2.3%
ETERNAL	260	7296825	1.4%	257	250	4551725	-2.5%	SHRIRAMFIN	1000	2204400	8.3%	923	900	836550	-2.5%
GRASIM	3200	225250	3.6%	3088	3000	188750	-2.8%	SUNPHARMA	1900	2521750	6.6%	1782	1800	1044750	1.0%
HCLTECH	1300	1257550	12.6%	1155	1060	589050	-8.2%	TATACONSUM	1300	1052150	15.0%	1131	1100	810150	-2.7%
HDFCBANK	800	19896250	7.1%	747	750	7337550	0.4%	TMPV	400	5620000	0.6%	398	380	1646400	-4.5%
HDFCLIFE	600	2724700	4.3%	575	585	1881000	1.7%	TATASTEEL	220	19934750	6.4%	207	200	6182000	-3.3%
HINDALCO	1110	1954400	1.6%	1093	1020	808500	-6.6%	TCS	2300	3488800	4.6%	2199	2300	1721825	4.6%
HINDUNILVR	2300	1473600	8.4%	2122	2100	610200	-1.0%	TECHM	1560	1707600	5.2%	1484	1300	1150800	-12.4%
ICICIBANK	1280	4442200	1.4%	1262	1300	2503200	3.0%	TITAN	4200	400225	-1.4%	4260	4000	274050	-6.1%
INDIGO	4500	703350	0.4%	4481	4400	198450	-1.8%	TRENT	3000	541200	8.1%	2774	2600	221400	-6.3%
INFY	1300	5119600	8.6%	1198	1200	1896800	0.2%	ULTRACEMCO	12000	85500	10.0%	10912	10700	78400	-1.9%
ITC	302	17324800	7.6%	281	292	3710400	4.0%	WIPRO	210	36285000	5.9%	198	190	14046000	-4.2%

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 (DIIs), 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

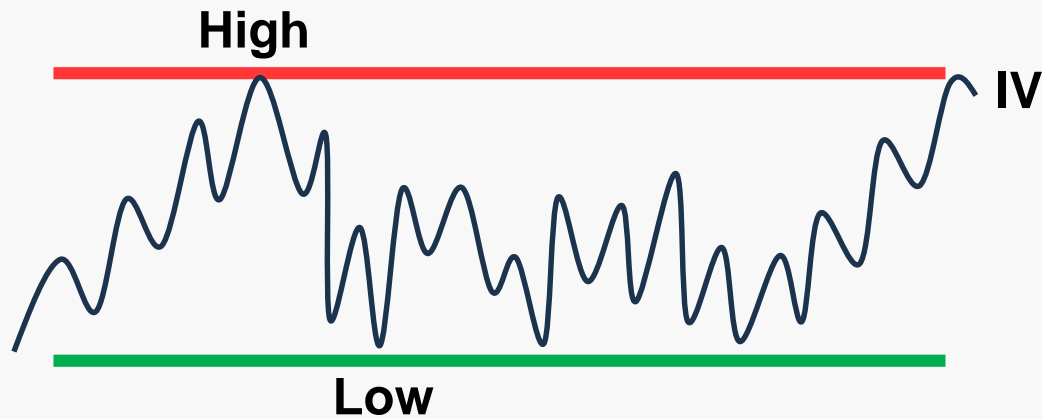


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



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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