



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	24,163	<b>0.9% ▼</b>
Open Interest (OI)	2,03,20,820	<b>0.2% ▼</b>
Change in OI (abs)	2,03,20,820	<b>40,690 ▼</b>
Premium / Discount (Abs)	-10	<b>13 ▼</b>
<b>Inference</b>	<b>Long Unwinding</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	56,344	<b>1.40% ▼</b>
Open interest (OI)	24,46,620	<b>3.0% ▲</b>
Change in OI (abs)	24,46,620	<b>71,850 ▲</b>
Premium / Discount (Abs)	39	<b>17 ▲</b>
<b>Inference</b>	<b>Short Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	18.59	<b>0.29 ▲</b>
Nifty ATM IV (%)	16.34	<b>0.97 ▼</b>
Bank Nifty ATM IV (%)	19.51	<b>0.89 ▼</b>
PCR (Nifty)	0.92	<b>0.10 ▼</b>
PCR (Bank Nifty)	0.91	<b>0.08 ▼</b>

The FII Long Ratio in Index Futures **drop** to **20.8%**, **down** from **21.7 %** in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
POLICYBZR	83,96,150	8.2%	1671.9	3.0%
LUPIN	73,33,800	6.9%	2345.1	1.4%
JIOFIN	19,29,84,350	6.0%	248.92	4.2%
NYKAA	5,15,59,375	4.6%	261.62	0.3%
POWERINDIA	4,24,150	4.6%	31715	4.3%

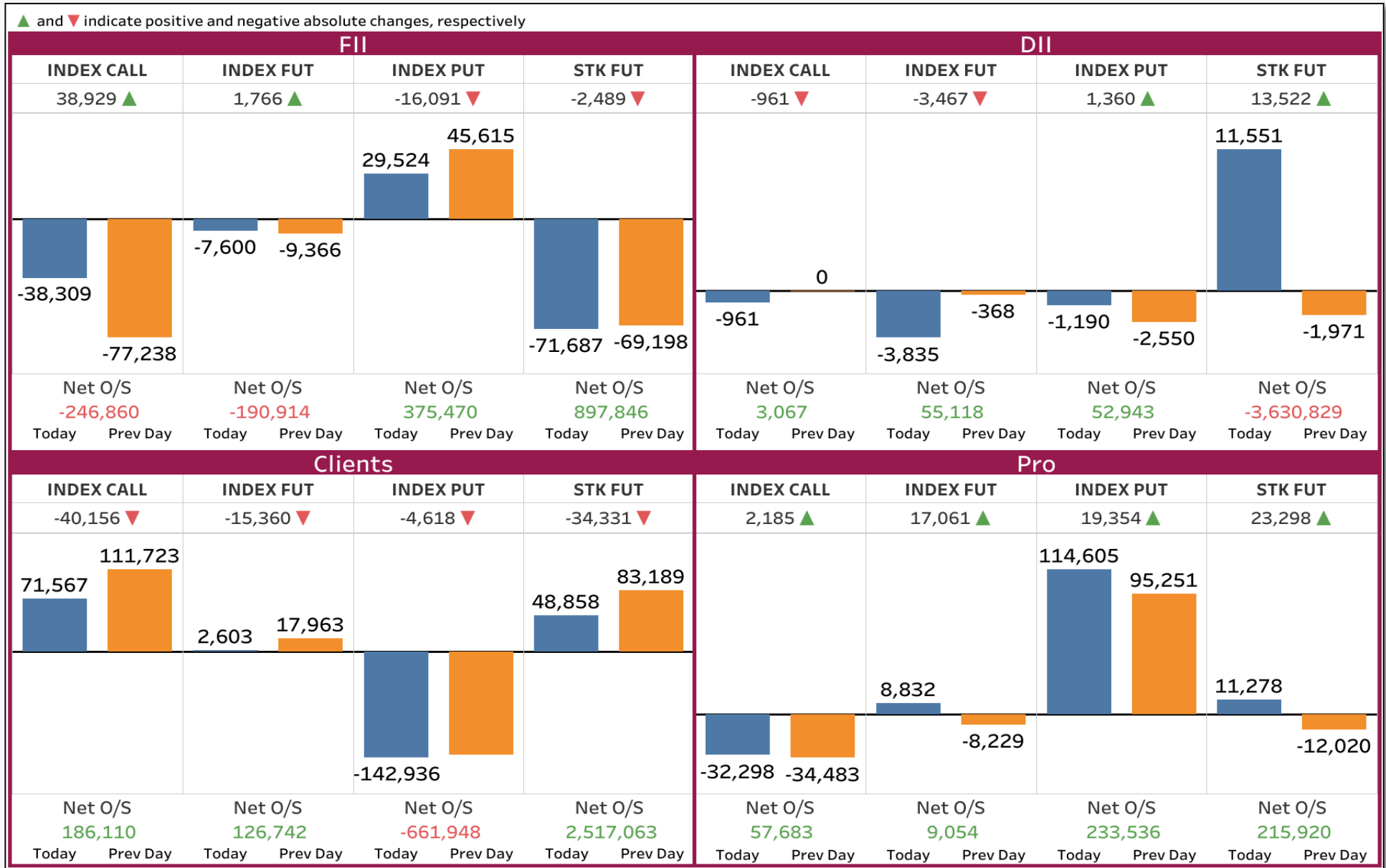
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MPHASIS	52,57,450	12.1%	2275.6	-2.8%
FORCEMOT	1,84,275	12.0%	20663	-4.9%
HINDZINC	4,29,48,500	10.7%	594.05	-2.0%
MOTILALOF	30,29,475	10.6%	791.05	-2.8%
BHARATFORG	96,16,500	9.5%	1860.7	-1.9%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PPLPHARMA	82,42,500	-19.9%	163.41	7.2%
RVNL	6,02,74,100	-15.4%	307.06	0.2%
HYUNDAI	78,71,050	-11.8%	1847.1	0.3%
CDSL	1,25,82,750	-11.6%	1321.6	0.2%
COALINDIA	6,48,18,900	-11.1%	452.2	1.6%

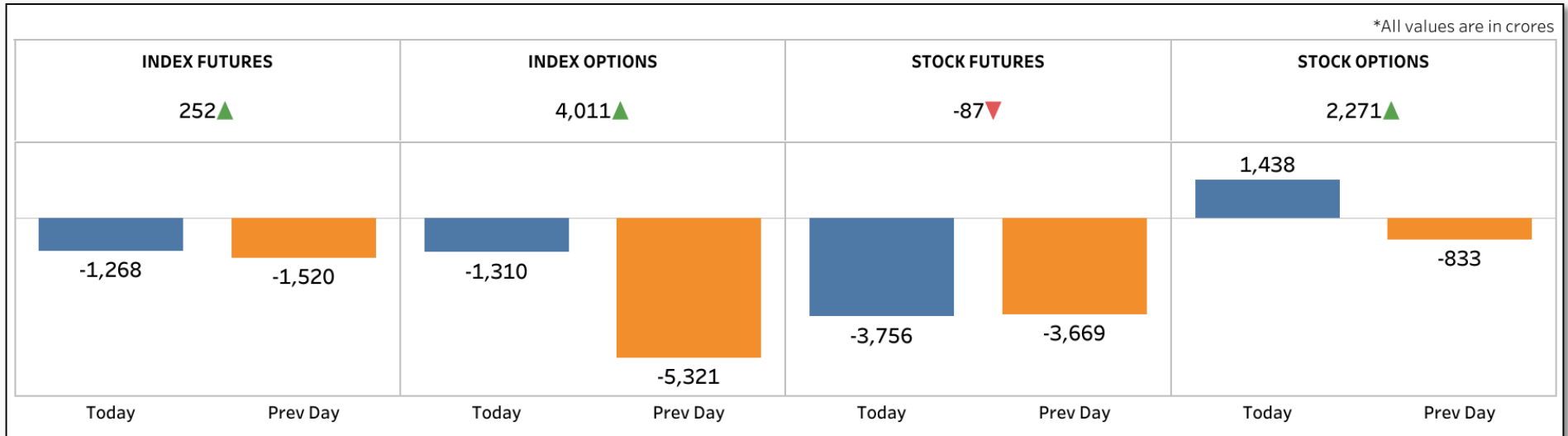
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
OBEROIRLTY	84,82,600	-13.8%	1709.6	-1.4%
LICI	1,01,48,600	-13.7%	810.8	-1.5%
IREDA	5,61,79,800	-13.0%	137.56	-2.4%
KEI	22,68,350	-12.9%	4855	-1.0%
ASTRAL	1,30,44,950	-12.6%	1575.3	-0.4%

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

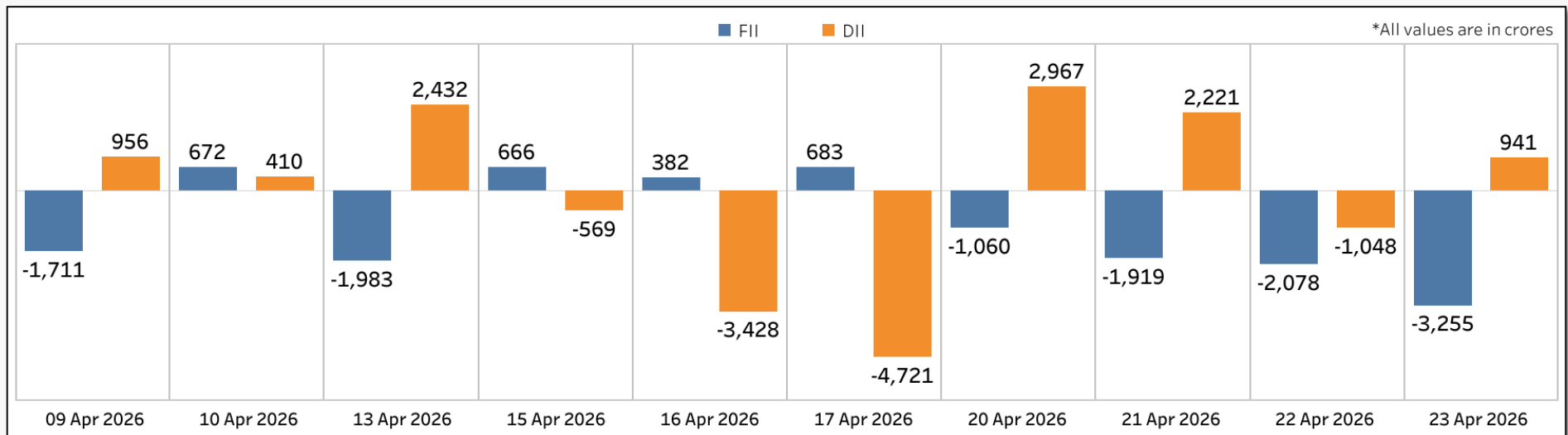
## Open Interest Trends by Participant



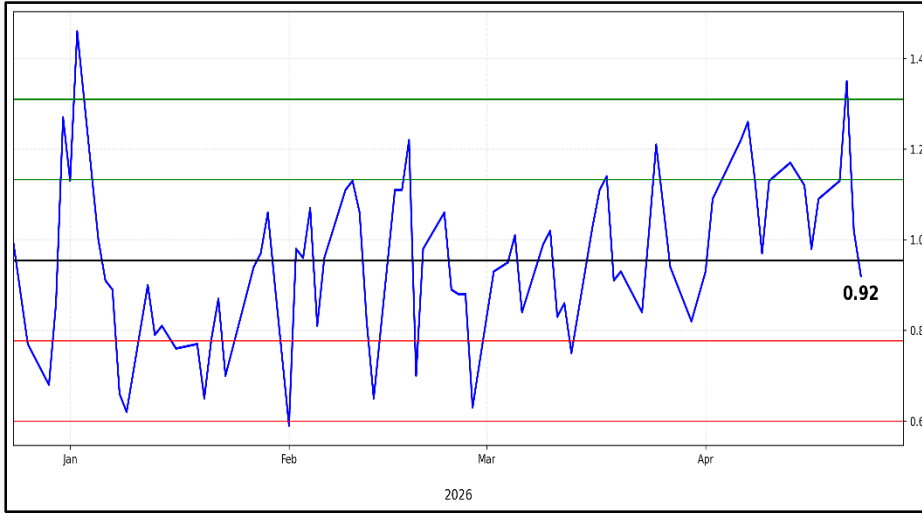
## Daily Net Open Interest Change



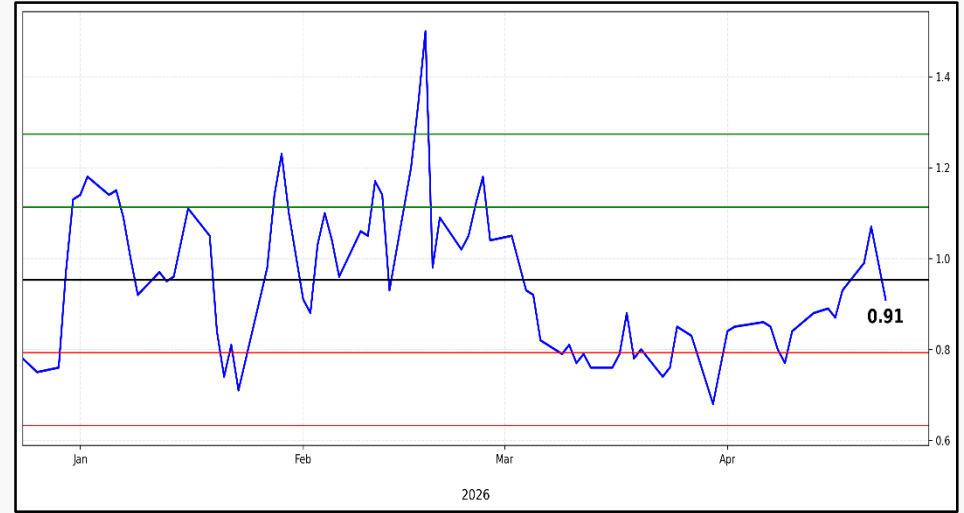
## DII and FII Daily Cash Market Flows



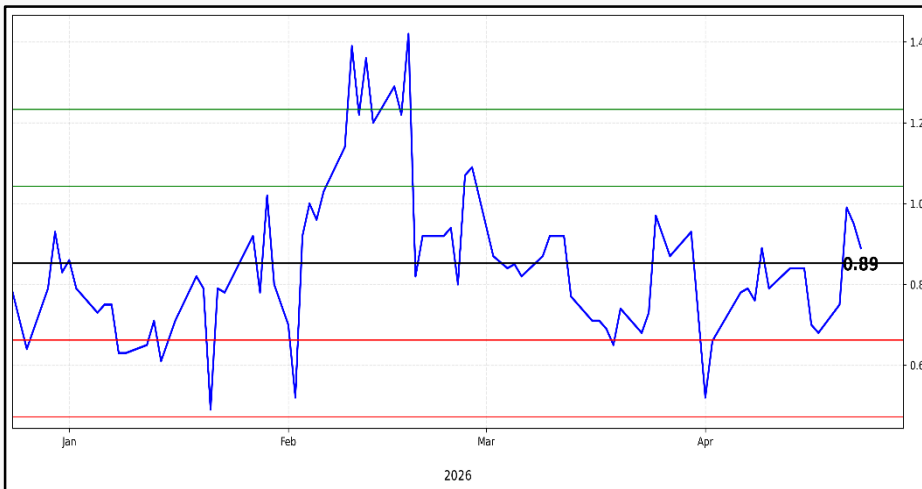
### Nifty



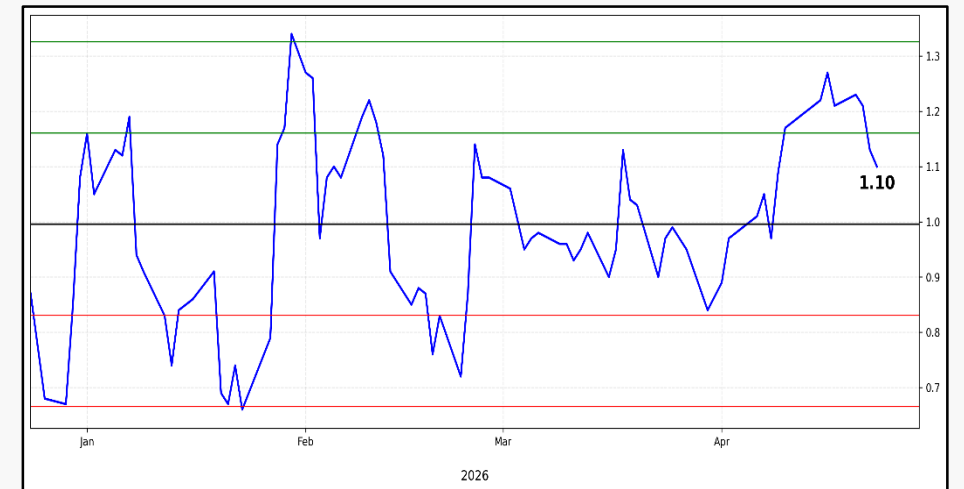
### Bank Nifty



### Fin Nifty



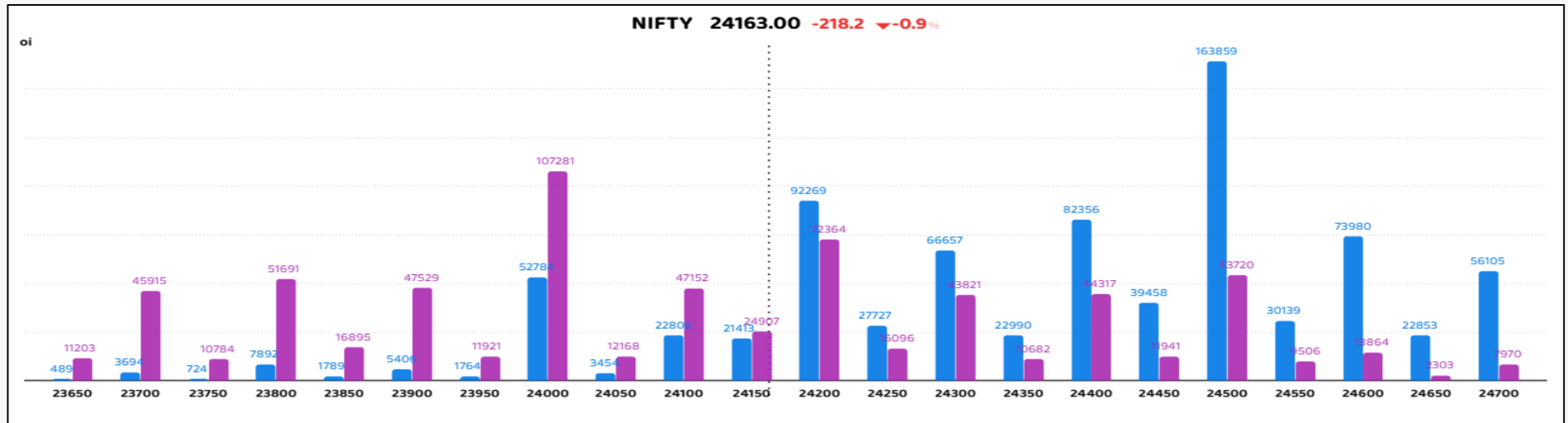
### Midcap Select Nifty



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 24,500 Call and 24,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 58,000 Call and the 57,000 Put saw the most amount of open interest.

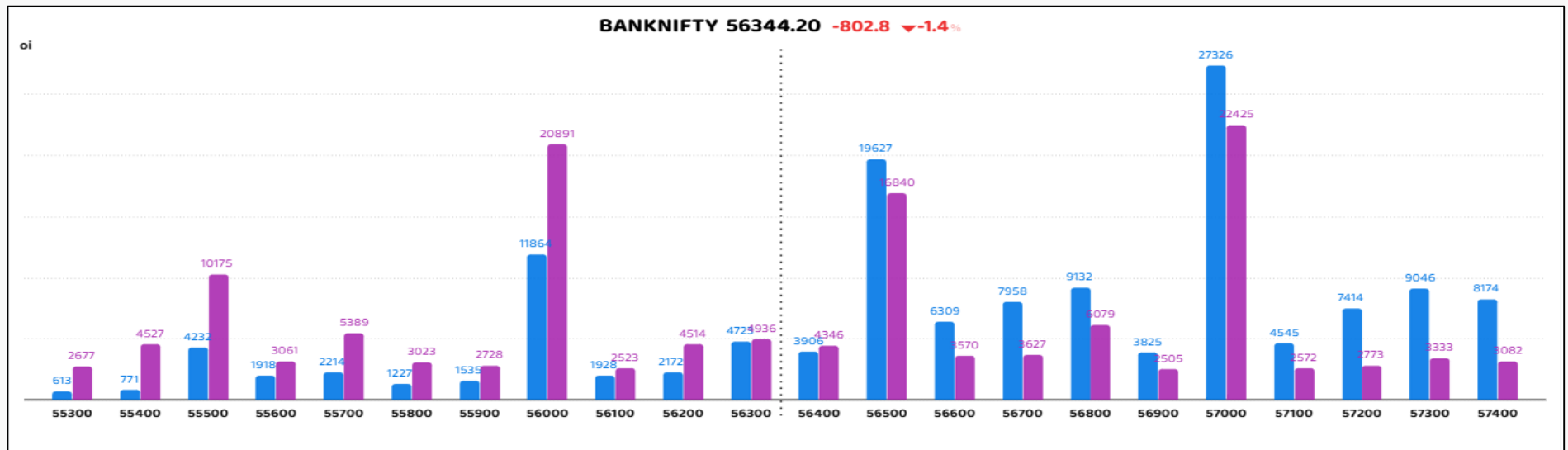
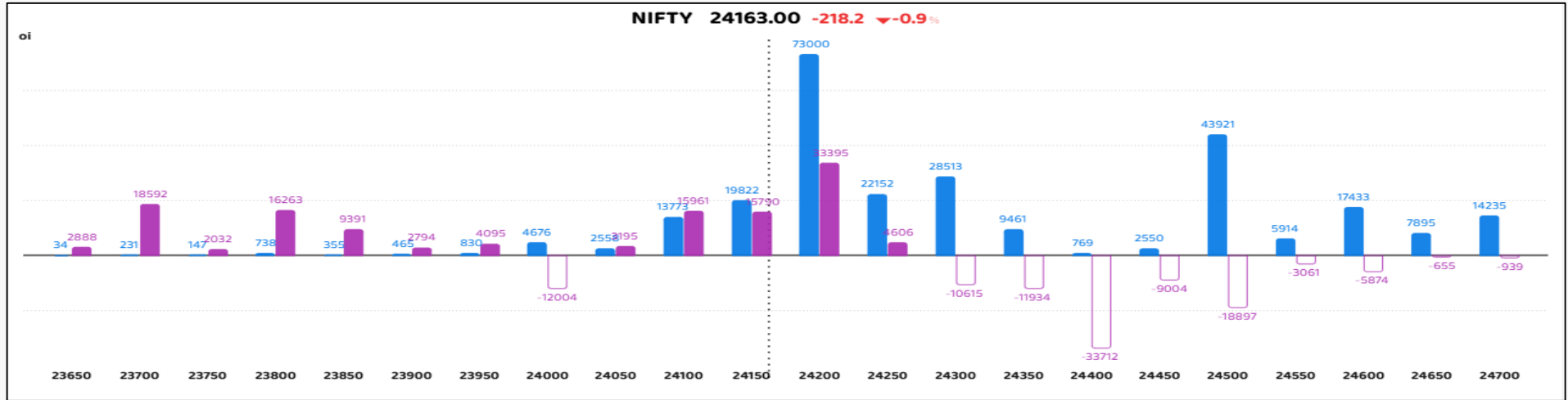


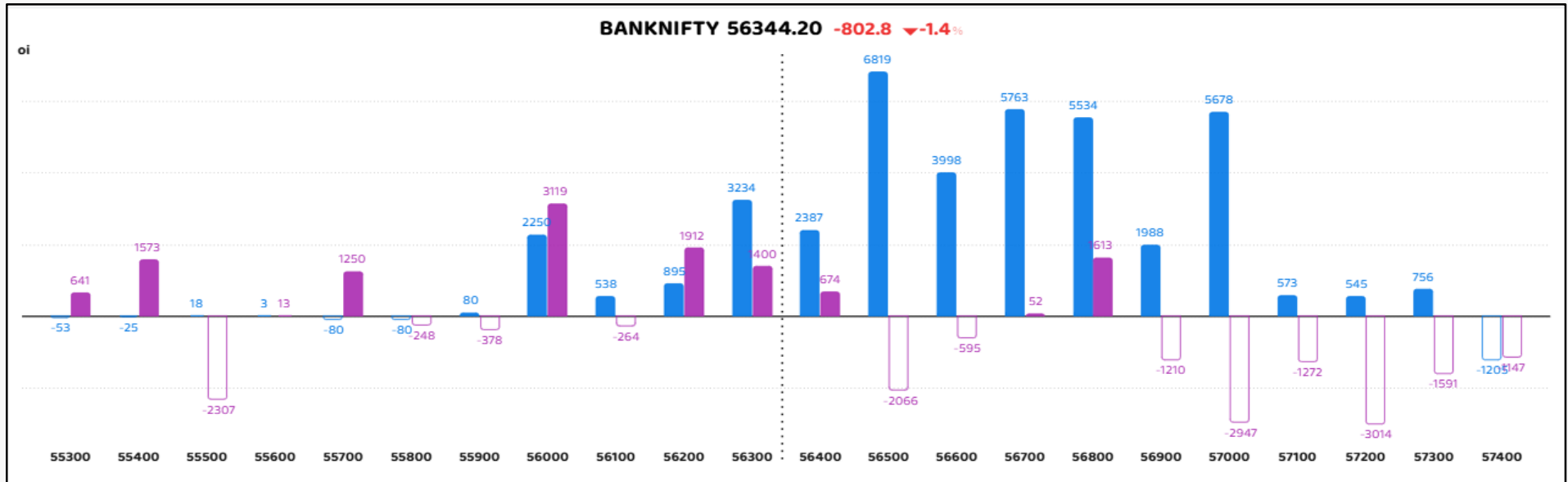
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,400 Call and the 24,300 Put



For the Bank Nifty, the biggest open interest changes were seen at the 57,500 Call & the 57,000 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
SUN PHARMA INDU	1680.1	0.6	27.5	27.5	14.1	100.0
DR REDDY'S LABS	1331.0	9.4	39.1	39.1	10.9	100.0
BHARAT HEAVY ELE	337.6	1.2	45.1	47.9	5.2	93.4
COLGATE PALMOLIV	2150.2	1.5	32.2	33.8	9.7	93.3
BRITANNIA INDS	5671.5	-1.0	28.7	29.9	16.3	90.9

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
CHOLAMANDALAM IN	1543.4	-1.4	20.9	186.8	19.6	0.8
ASHOK LEYLAND	170.6	-4.7	45.5	734.8	18.5	3.8
ADITYA BIRLA CAP	349.8	-0.3	36.5	658.6	8.2	4.4
HINDALCO INDS	1041.4	0.1	35.8	254.2	12.3	9.7
REC LTD	376.5	-1.8	32.2	244.9	8.0	10.2

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
SUN PHARMA INDU	1680.1	0.6	27.5	27.5	14.1	100.0
DR REDDY'S LABS	1331.0	9.4	39.1	39.1	10.9	100.0
PIRAMAL PHARMA L	163.9	6.5	52.8	58.0	24.9	99.7
BHARAT HEAVY ELE	337.6	1.2	45.1	47.9	5.2	99.5
ADANI ENERGY SOL	1361.3	-0.5	58.0	70.1	20.6	99.3

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
CHOLAMANDALAM IN	1543.4	-1.4	20.9	186.8	19.6	1.0
VEDANTA LTD	735.6	-2.8	20.3	46.2	9.6	2.3
STEEL AUTHORITY	176.5	0.1	16.6	91.3	0.6	5.5
TATA STEEL LTD	210.9	-1.0	22.3	93.5	5.2	14.1
SONA BLW PRECISI	574.6	-2.4	31.8	57.8	27.5	21.5

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PATANJALI	469.4	-0.6	7,611.0	1,364.0	5.6
OIL	473.9	0.9	16,822.0	3,490.0	4.8
PPLPHARMA	163.9	6.5	49,253.0	12,038.0	4.1
BIOCON	358.0	0.1	16,804.0	4,215.0	4.0
DIVISLAB	6,378.5	1.5	47,231.0	11,887.0	4.0

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
BOSCHLTD	37,380.0	-1.3	8,696.0	57,235.0	6.6
PHOENIXLTD	1,784.5	-1.4	2,486.0	5,650.0	2.3
PAGEIND	37,965.0	0.3	3,461.0	7,380.0	2.1
SHREECEM	25,470.0	-1.0	2,465.0	3,308.0	1.3
CUMMINSIND	5,176.9	-0.7	13,039.0	16,022.0	1.2

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
ADANIENSOL	1,361.2	-0.5	11,287.0	8,485.0	100.0
ADANIGREEN	1,214.2	1.3	20,446.0	17,447.0	100.0
ASHOKLEY	170.6	-4.7	22,377.0	21,126.0	100.0
DRREDDY	1,331.1	9.4	21,348.0	16,032.0	100.0
HCLTECH	1,277.6	-0.6	113,570.0	107,904.0	100.0

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
ADANIENSOL	1,361.2	-0.5	7,292.0	6,007.0	100.0
DRREDDY	1,331.1	9.4	14,187.0	8,586.0	100.0
HCLTECH	1,277.6	-0.6	49,672.0	47,244.0	100.0
DABUR	460.0	0.0	7,109.0	6,878.0	100.0
EXIDEIND	347.2	-2.1	9,435.0	8,941.0	100.0

### Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
ADANIGREEN	1,214.2	1.3	72,764.0	58,156.0	100.0
CIPLA	1,305.9	5.7	149,305.0	26,396.0	100.0
CAMS	770.4	2.0	11,802.0	9,081.0	100.0
DRREDDY	1,331.1	9.4	305,893.0	39,708.0	100.0
GLENMARK	2,335.1	4.2	61,970.0	46,396.0	100.0

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
GLENMARK	2,335.1	4.2	18,121.0	9,720.0	100.0
BOSCHLTD	37,380.0	-1.3	57,235.0	46,134.0	100.0
CIPLA	1,305.9	5.7	38,398.0	15,109.0	100.0
DRREDDY	1,331.1	9.4	123,033.0	22,875.0	100.0
SOLARINDS	15,747.0	3.1	27,289.0	20,547.0	100.0

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

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
HCLTECH	1,277.6	-0.6	113,570.0	21,381.8	5.3
HAVELLS	1,260.3	-6.6	28,675.0	5,979.4	4.8
360ONE	1,052.2	-0.3	10,870.0	2,999.0	3.6
NESTLEIND	1,410.5	1.1	21,670.0	7,745.0	2.8
SBILIFE	1,828.1	-3.0	19,851.0	7,298.3	2.7

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

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
HCLTECH	1,277.6	-0.6	49,672.0	15,287.3	3.2
NESTLEIND	1,410.5	1.1	15,054.0	4,690.6	3.2
OFSS	8,791.5	8.2	18,294.0	6,074.8	3.0
HAVELLS	1,260.3	-6.6	11,912.0	3,977.9	3.0
PNBHOUSING	1,007.8	1.8	8,780.0	3,158.4	2.8

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
DRREDDY	1,331.1	9.4	305,893.0	13,917.2	22.0
PPLPHARMA	163.9	6.5	49,253.0	2,662.8	18.5
OFSS	8,791.5	8.2	319,292.0	26,458.4	12.1
CIPLA	1,305.9	5.7	149,305.0	12,686.0	11.8
UNIONBANK	179.7	-7.4	87,346.0	10,821.4	8.1

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
DRREDDY	1,331.1	9.4	123,033.0	8,476.3	14.5
PPLPHARMA	163.9	6.5	12,038.0	917.8	13.1
UNIONBANK	179.7	-7.4	57,049.0	5,620.2	10.2
HAVELLS	1,260.3	-6.6	60,855.0	6,321.2	9.6
OFSS	8,791.5	8.2	118,648.0	14,275.6	8.3

## 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
ADANIANT	2300	629742	0.0%	2300	2200	487911	-4.3%	JIOFIN	250	7254450	0.5%	249	240	6243950	-3.5%
ADANIPTS	1500	918175	-6.4%	1603	1500	1062575	-6.4%	JSWSTEEL	1300	773550	3.4%	1257	1260	364500	0.2%
APOLLOHOSP	8000	82625	2.8%	7781	7700	138500	-1.0%	KOTAKBANK	370	3600000	-0.1%	370	335	3216000	-9.6%
ASIANPAINT	2600	415250	3.1%	2521	2400	375250	-4.8%	LT	4100	1062250	1.1%	4054	4000	512225	-1.3%
AXISBANK	1400	2125000	2.2%	1370	1300	1186250	-5.1%	M&M	3300	614600	8.3%	3048	2800	236200	-8.1%
BAJAJ-AUTO	9800	136575	2.6%	9551	8000	114150	-16.2%	MARUTI	14000	211500	6.4%	13160	13000	89050	-1.2%
BAJAJFINSV	1800	354000	0.4%	1793	1760	392250	-1.8%	MAXHEALTH	1020	625275	1.3%	1007	1000	222600	-0.7%
BAJFINANCE	950	2570250	3.4%	918	900	1528500	-2.0%	NESTLEIND	1420	891000	0.7%	1411	1300	595500	-7.8%
BEL	460	4225125	2.2%	450	450	2325600	0.0%	NTPC	395	8172000	-1.8%	402	400	4714500	-0.6%
BHARTIARTL	1900	2095225	3.2%	1841	1800	839800	-2.2%	ONGC	290	15291000	1.3%	286	270	4369500	-5.7%
CIPLA	1280	348375	-2.0%	1306	1160	511125	-11.2%	POWERGRID	315	6306100	-1.3%	319	300	2793000	-6.0%
COALINDIA	460	3443850	2.1%	451	400	2505600	-11.2%	RELIANCE	1400	9119500	4.2%	1343	1300	5042000	-3.2%
DRREDDY	1400	930625	5.2%	1331	1200	1134375	-9.8%	SBILIFE	2000	1285500	9.4%	1828	1900	400125	3.9%
EICHERMOT	8000	276700	12.8%	7093	6500	142700	-8.4%	SBIN	1200	3015750	9.7%	1094	1000	3261750	-8.6%
ETERNAL	260	6263775	0.0%	260	250	4008525	-3.8%	SHRIRAMFIN	1100	1566675	9.0%	1009	1000	1231725	-0.9%
GRASIM	2800	217000	2.4%	2735	2700	74750	-1.3%	SUNPHARMA	1800	947450	7.1%	1680	1690	531650	0.6%
HCLTECH	1300	4216800	1.8%	1278	1200	1453550	-6.1%	TATACONSUM	1200	336600	1.3%	1184	930	442200	-21.5%
HDFCBANK	800	10012200	2.0%	784	800	3478750	2.0%	TMPV	360	7326400	2.3%	352	300	2180800	-14.8%
HDFCLIFE	600	2140600	0.2%	599	520	778800	-13.1%	TATASTEEL	195	23364000	-7.5%	211	200	7144500	-5.2%
HINDALCO	900	2587200	-13.6%	1041	900	1061900	-13.6%	TCS	2600	2791075	3.1%	2522	2400	787675	-4.8%
HINDUNILVR	2260	1285200	-4.5%	2366	2260	451800	-4.5%	TECHM	1500	2221200	5.5%	1422	1400	735600	-1.5%
ICICIBANK	1400	4375700	3.9%	1348	1300	1893500	-3.6%	TITAN	4500	393225	1.0%	4457	4400	282450	-1.3%
INDIGO	4700	840600	3.2%	4556	4700	356850	3.2%	TRENT	4500	826600	5.8%	4251	4300	242200	1.1%
INFY	1300	3445200	4.8%	1241	1200	3039200	-3.3%	ULTRACEMCO	12500	189550	2.7%	12167	12000	45700	-1.4%
ITC	310	18518400	1.5%	305	300	4744000	-1.7%	WIPRO	210	24693000	3.6%	203	200	10110000	-1.4%

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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