



# Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	22,823	0.5% ▼
Open Interest (OI)	1,97,49,075	0.1% ▲
Change in OI (abs)	1,97,49,075	25,050 ▲
Premium / Discount (Abs)	22	3 ▼
<b>Inference</b>	<b>Short Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	49,031	0.9% ▼
Open interest (OI)	42,88,260	4.5% ▲
Change in OI (abs)	42,88,260	1,82,730 ▲
Premium / Discount (Abs)	50	89 ▼
<b>Inference</b>	<b>Short Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	14.53	0.2 ▼
Nifty ATM IV (%)	12.22	0.7 ▼
Bank Nifty ATM IV (%)	15.02	1.1 ▼
PCR (Nifty)	0.82	0.08 ▼
PCR (Bank Nifty)	0.68	0.11 ▼

The Long Ratio for the FII Index Futures **dropped** to 15%, against 15.7% recorded in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KEI	10,08,300	15.5%	3830.1	2.8%
JSWENERGY	2,23,50,750	9.6%	496.2	5.5%
EICHERMOT	37,01,775	4.3%	4954.15	1.4%
LTTS	9,10,400	4.1%	5116.4	4.1%
JSL	44,81,050	3.0%	625.45	0.9%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CYIENT	33,15,300	11.5%	1366.95	-6.0%
MARICO	1,60,52,400	11.0%	625.9	-2.4%
PHOENIXLTD	11,37,500	8.8%	1585.9	-0.8%
LUPIN	74,95,300	7.4%	1907.4	-3.7%
M&M	1,84,59,175	7.3%	2673.3	-5.8%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
HUDCO	1,74,67,275	-15.9%	189.25	0.4%
GUJGASLTD	46,40,000	-15.5%	405.3	0.9%
IRFC	9,08,63,925	-13.9%	124.95	0.3%
NATIONALUM	3,93,03,750	-12.9%	200.09	3.7%
LICI	77,80,325	-12.8%	781.4	0.3%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ADANIGREEN	1,30,58,250	-18.9%	836.25	-3.1%
ATGL	54,94,750	-16.4%	579.6	-1.3%
ABBOTINDIA	26,320	-16.3%	28907.15	-1.9%
DELHIVERY	91,60,675	-15.8%	273.55	-0.8%
BSE	43,78,500	-14.9%	5763.15	-2.6%

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 Data by Participant

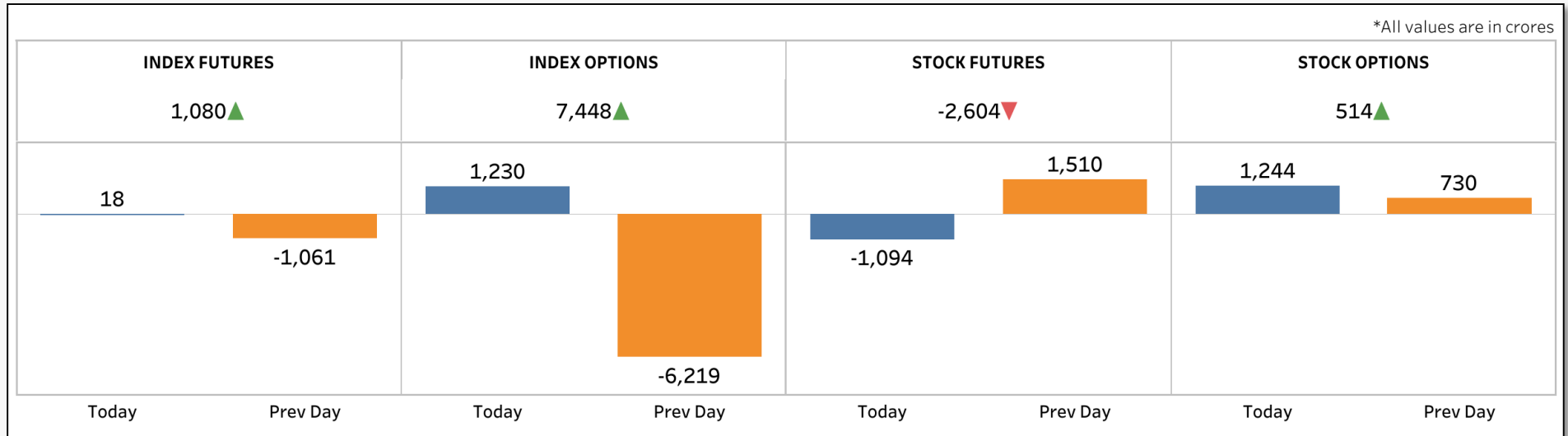
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
10,802 ▲	5,984 ▲	21,358 ▲	-55,431 ▼	0	-5,414 ▼	0	3,435 ▲
		16,392	32,902				7,676
-10,794	-687	-4,966	-22,529	0	-1,016	0	4,241
-21,596	-6,671						
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-73,043	-170,172	209,239	1,254,665	70	25,609	18,985	-3,965,536
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day

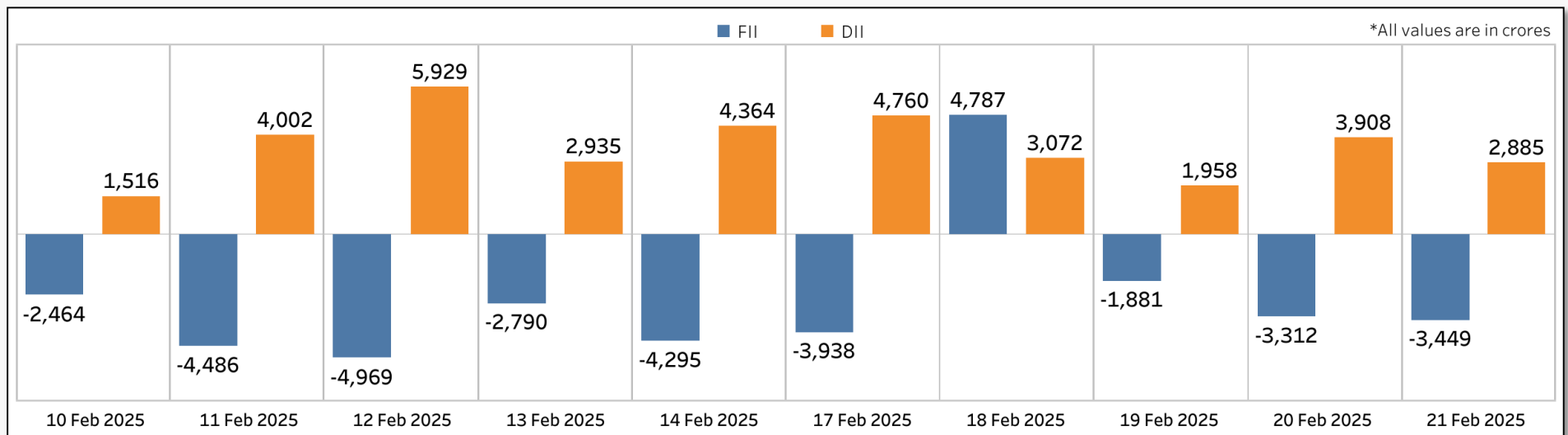
  

Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-28,981 ▼	-10,823 ▼	-29,519 ▼	22,996 ▲	18,179 ▲	10,253 ▲	8,161 ▲	29,000 ▲
576	2,904		15,329			57,781	49,620
	-7,919	-44,654	-7,667	10,218	9,622		
		-74,173		-7,961	-631		-476
							-29,476
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
16,526	134,012	-310,822	2,226,740	56,447	10,551	82,597	484,131
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

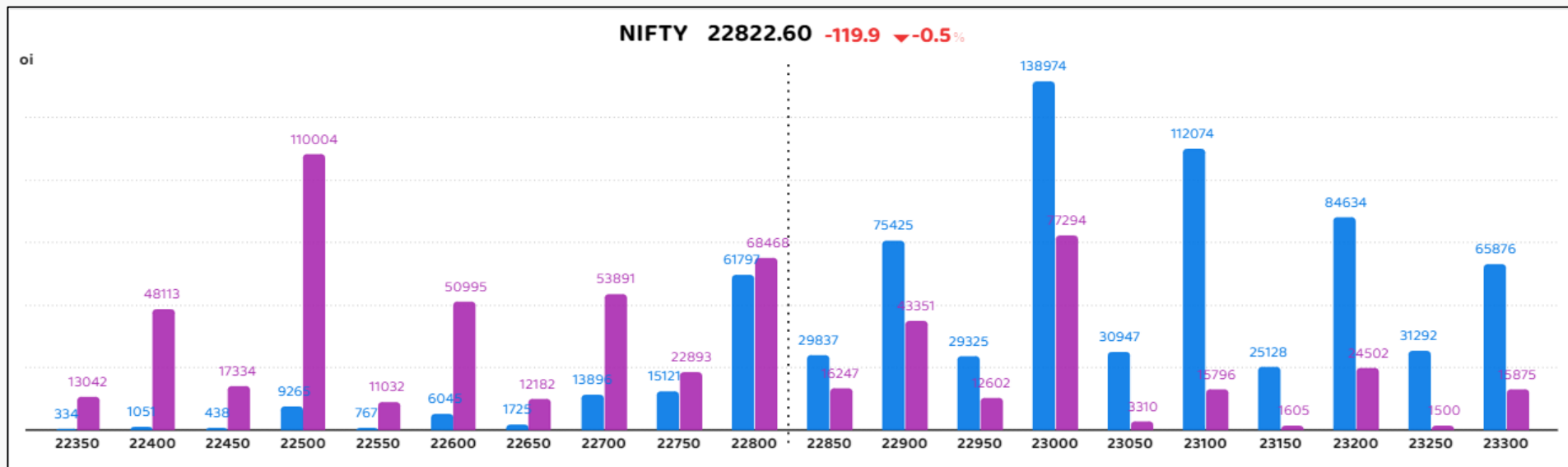


## DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 23000 Call and the 22500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 50000 Call and the 49000 Put saw the most amount of open interest.

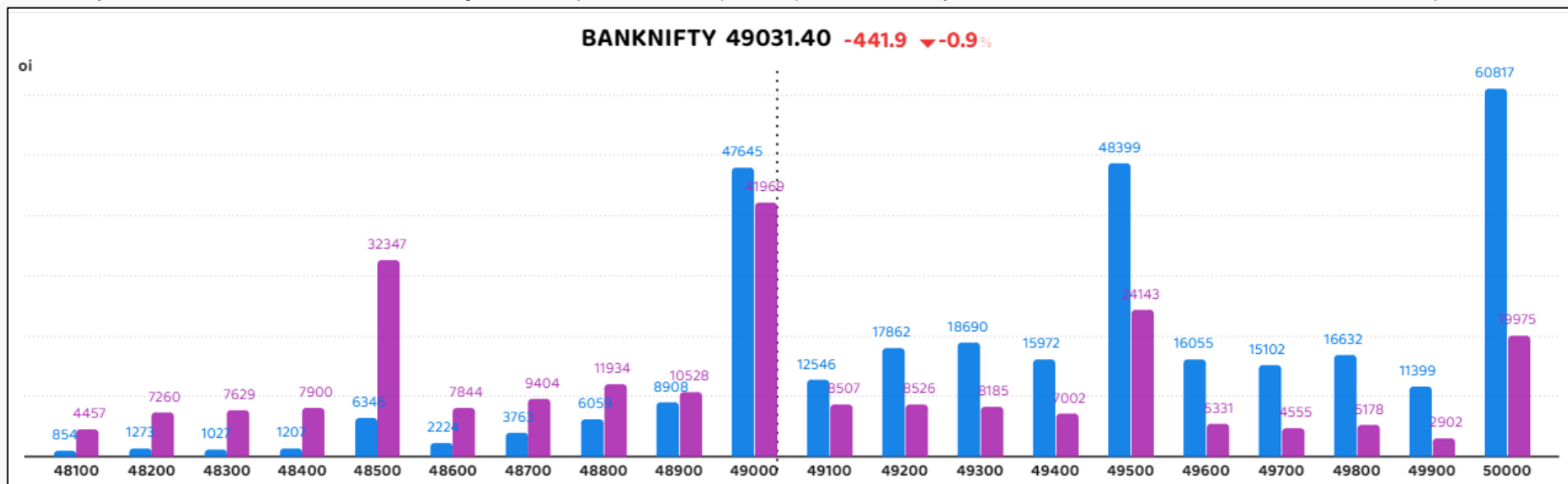
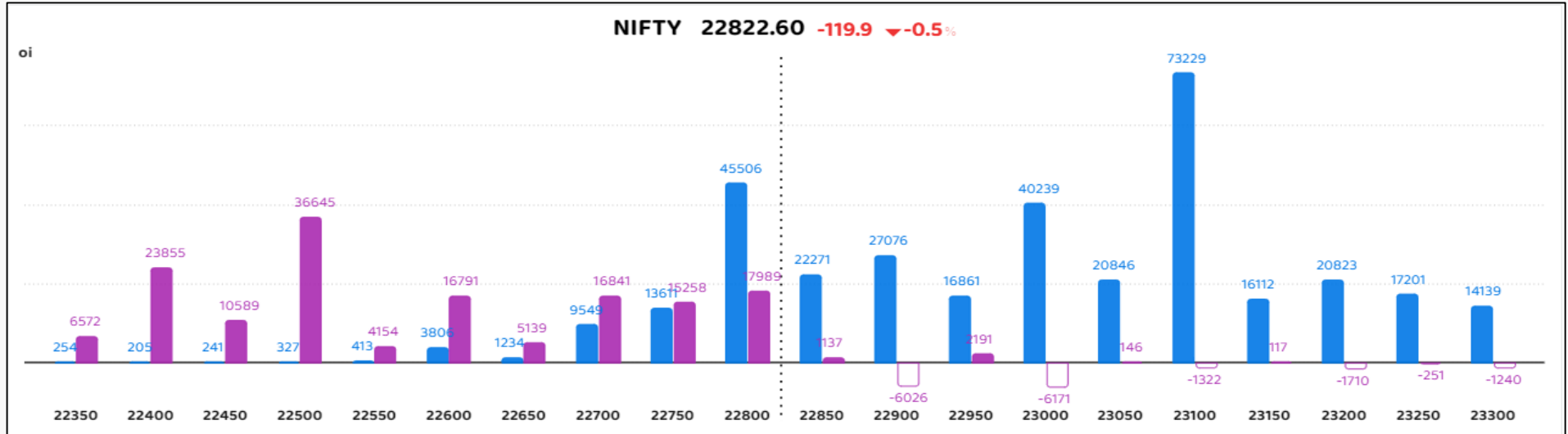


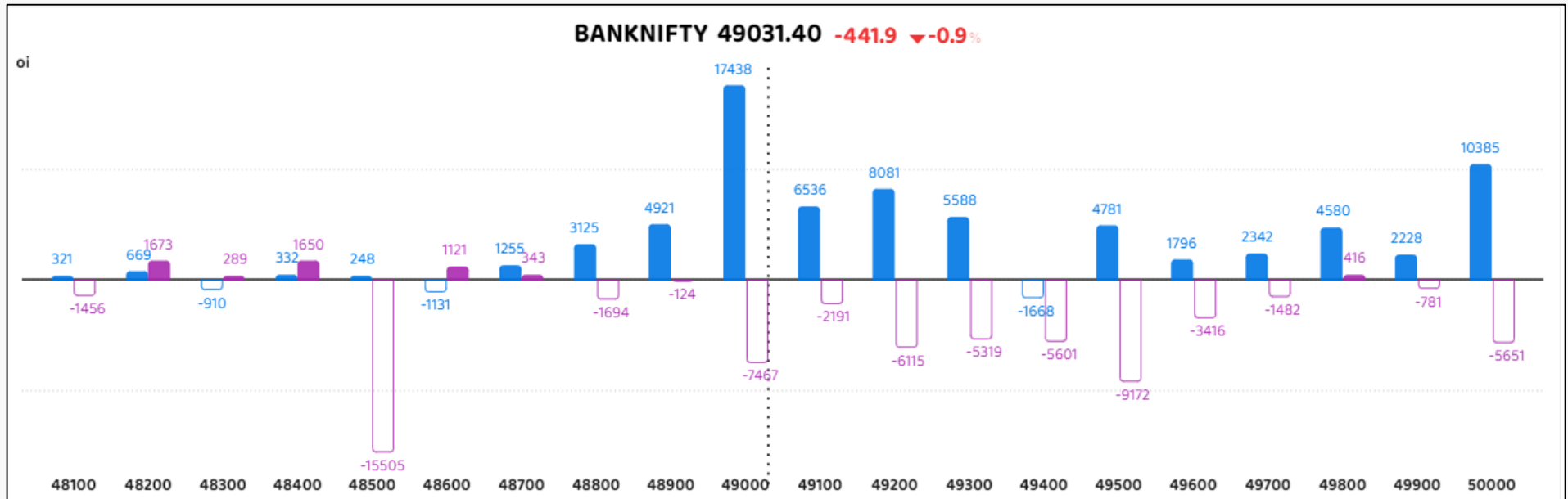
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23000 Call and the 22600 Put



For the Bank Nifty, the biggest open interest changes were seen at the 49500 Call & the 48500 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
LAURUS LABS LTD	521.45	-2.9	44.8	44.8	16.1	100.0
IPCA LABS LTD	1444.95	-3.5	47.1	49.3	14.4	93.8
COLGATE PALMOLIV	2458.75	-0.9	30.0	32.8	9.5	88.1
DIXON TECHNOLOGI	13971.9	-1.7	44.7	51.5	1.8	86.2
PVR INOX LTD	1012	0.3	36.7	45.3	3.8	79.3

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HDFC LIFE INSURA	622.85	0.5	25.1	80.6	19.6	9.1
JK CEMENTS LTD	4580.15	-2.0	10.2	42.0	5.9	11.9
INDIAN OIL CORP	121.33	-1.2	27.5	51.7	23.7	13.6
BANK OF BARODA	210.27	-1.5	30.2	66.9	24.3	13.9
CIPLA LTD	1475.75	-0.3	24.2	61.3	18.0	14.3

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
LAURUS LABS LTD	521.45	-2.9	44.8	44.8	16.1	100.0
IPCA LABS LTD	1444.95	-3.5	47.1	49.3	14.4	99.3
INDIAMART INTERM	2022.7	-2.3	44.6	56.4	16.6	98.1
COLGATE PALMOLIV	2458.75	-0.9	30.0	32.8	9.5	96.3
GRANULES INDIA	508.55	-3.5	40.7	54.5	11.0	94.8

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
JK CEMENTS LTD	4580.15	-2.0	10.2	42.0	5.9	0.6
TORRENT PHARMA	3039.35	-1.8	21.5	45.4	12.0	10.0
SHREE CEMENT	28405.7	-0.3	20.2	37.7	11.6	10.9
DABUR INDIA LTD	508.65	-0.3	20.2	36.5	11.6	14.1
ICICI BANK LTD	1232.95	-1.4	18.8	46.1	9.3	15.8



### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
ATUL LTD	5494.85	-1.2	3557	560	6.4
SUN TV NETWORK	575.95	-0.6	3374	696	4.9
MRF LTD	109263.3	-0.6	4095	850	4.8
AARTI INDUS LTD	412.65	-2.4	6965	2345	3.0
PAGE INDUSTRIES	41132.3	-0.6	21768	7333	3.0

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
INDIAMART INTERM	2070	-2.3	1706	4697	2.8
GRASIM INDS LTD	2453.7	-0.9	12898	24731	1.9
IPCA LABS LTD	1496.7	-3.5	3755	6296	1.7
TORRENT PHARMA	3095.95	-1.8	3086	4590	1.5
GLENMARK PHARMA	1348.95	-3.6	12170	15661	1.3

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
MAHINDRA & MAHIN	2839.45	-6.0	95251	95251	100.0
AMBUJA CEMENTS	482.85	-0.2	22966	23282	98.6
LAURUS LABS LTD	536.75	-2.9	14915	15338	97.2
GLENMARK PHARMA	1348.95	-3.6	8126	8612	94.4
TRENT LTD	5099.5	-1.0	72223	76558	94.3

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
MAHINDRA & MAHIN	2669.35	-6.0	44522	44522	100.0
STEEL AUTHORITY	112.76	2.7	12685	12685	100.0
LARSEN & TOUBRO	3315.1	1.2	42211	42532	99.3
CHAMBAL FERTILIS	550	-2.0	4691	4768	98.4
GODREJ PROPERTIE	1991.35	-4.1	8912	9326	95.6

### Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
MAHINDRA & MAHIN	2669.35	-6.0	324736	324736	100.0

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
MAHINDRA & MAHIN	2669.35	-6.0	296760	296760	100.0

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

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
MAHINDRA & MAHIN	2669.35	-6.0	95251	38357	2.5
LTIMINDTREE LTD	5298.5	-1.8	10595	5719	1.9
LUPIN LTD	1905.35	-3.6	17346	9408	1.8
DEEPAK NITRITE	1932.75	-1.7	14704	8433	1.7
MUTHOOT FINANCE	2212.1	-2.8	9219	5436	1.7

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

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
MAHINDRA & MAHIN	2669.35	-6.0	44522	22520	2.0
PETRONET LNG LTD	301.55	-1.7	14563	8001	1.8
GLENMARK PHARMA	1300.8	-3.6	6813	4092	1.7
ABB INDIA LTD	5291.4	-1.0	12294	7450	1.7
DEEPAK NITRITE	1932.75	-1.7	7501	4574	1.6

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
L&T TECHNOLOGY S	5123.1	4.2	48048	9965	4.8
CHAMBAL FERTILIS	550.0	-2.0	35597	11806	3.0
MAHINDRA & MAHIN	2669.35	-6.0	324736	108386	3.0
BATA INDIA LTD	1298.1	2.7	17256	5765	3.0
BANDHAN BANK LTD	139.38	2.1	35004	12210	2.9

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
MAHINDRA & MAHIN	2669.35	-6.0	296760	72329	4.1
L&T TECHNOLOGY S	5123.1	4.2	22529	6766	3.3
CHAMBAL FERTILIS	550	-2.0	13422	5728	2.3
ORACLE FINANCIAL	8405	-3.2	23678	10179	2.3
BANDHAN BANK LTD	139.38	2.1	15747	7134	2.2

## 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	2400	1019700	12.5%	2133	2800	994500	31.3%	INFY	1900	3498000	4.7%	1815	1800	1245600	-0.8%
ADANIPTS	1200	1468400	10.8%	1083	1080	799600	-0.3%	ITC	450	8051200	12.2%	401	400	4395200	-0.2%
APOLLOHOSP	7000	273875	10.8%	6318	6300	88750	-0.3%	JSWSTEEL	1000	1099575	1.8%	982	950	446850	-3.2%
ASIANPAINT	2400	1100000	6.3%	2258	2100	295600	-7.0%	KOTAKBANK	2000	2596000	2.4%	1953	1940	858800	-0.7%
AXISBANK	1050	6975000	4.1%	1009	1000	1804375	-0.9%	LT	3600	1773450	8.6%	3315	3250	623100	-2.0%
BAJAJ-AUTO	9000	164850	5.8%	8506	8600	72825	1.1%	LTIM	5800	303450	9.5%	5299	5100	73800	-3.7%
BAJAJFINSV	1860	1718500	-1.0%	1879	1800	851000	-4.2%	M&M	2800	1423450	4.9%	2669	2600	620375	-2.6%
BAJFINANCE	8500	666250	1.2%	8397	7500	414750	-10.7%	MARUTI	13000	592100	5.5%	12323	12000	328350	-2.6%
BHARTIARTL	1700	4781825	3.7%	1639	1600	1136200	-2.4%	NESTLEIND	2400	553600	8.4%	2215	2000	205000	-9.7%
BPCL	270	9446400	7.4%	251	250	1611000	-0.5%	NTPC	315	8730000	-3.4%	326	390	3696000	19.5%
BRITANNIA	5000	363500	3.5%	4832	4800	104700	-0.7%	ONGC	270	10339175	12.5%	240	240	2716175	0.0%
CIPLA	1500	1618825	1.6%	1476	1440	414700	-2.4%	POWERGRID	300	7758000	14.5%	262	260	2518200	-0.7%
COALINDIA	400	4374300	8.1%	370	450	2495850	21.6%	RELIANCE	1300	9964000	5.9%	1228	1200	3880500	-2.3%
DIVISLAB	6200	297300	7.7%	5757	5000	191800	-13.1%	SBLIFE	1500	882375	0.3%	1495	1460	337125	-2.4%
DRREDDY	1240	1361875	7.7%	1152	1100	506875	-4.5%	SBIN	800	16782750	10.8%	722	720	4530000	-0.3%
EICHERMOT	5500	379225	10.8%	4962	4700	188650	-5.3%	SUNPHARMA	1800	1716400	9.5%	1644	1660	503650	1.0%
GRASIM	2500	257000	2.8%	2431	2400	641000	-1.3%	TATACONSUM	1060	425448	5.6%	1004	900	577296	-10.4%
HCLTECH	1760	1233050	3.5%	1701	1540	735350	-9.4%	TATAMOTORS	750	8388600	11.4%	673	600	2729100	-10.9%
HDFCBANK	1760	9401700	4.0%	1693	1700	2266550	0.4%	TATASTEEL	150	33258500	6.6%	141	140	14734500	-0.5%
HDFCLIFE	640	3214200	2.8%	623	540	800800	-13.3%	TCS	4000	1041250	5.7%	3786	3800	521675	0.4%
HEROMOTOCO	4200	831750	9.0%	3853	4100	227400	6.4%	TECHM	1720	856800	4.3%	1650	1500	412200	-9.1%
HINDALCO	610	2465400	-6.7%	654	600	1944600	-8.2%	TITAN	3600	1068550	13.2%	3180	3200	480375	0.6%
HINDUNILVR	2500	1143000	11.5%	2242	2200	473100	-1.9%	ULTRACEMCO	12000	250250	7.6%	11157	11000	63600	-1.4%
ICICIBANK	1300	5747000	5.4%	1233	1200	1558900	-2.7%	UPL	660	1219500	2.1%	646	600	1482370	-7.2%
INDUSINDBK	1100	4424000	5.4%	1044	1000	909000	-4.2%	WIPRO	320	3795000	4.5%	306	300	3648000	-2.1%

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

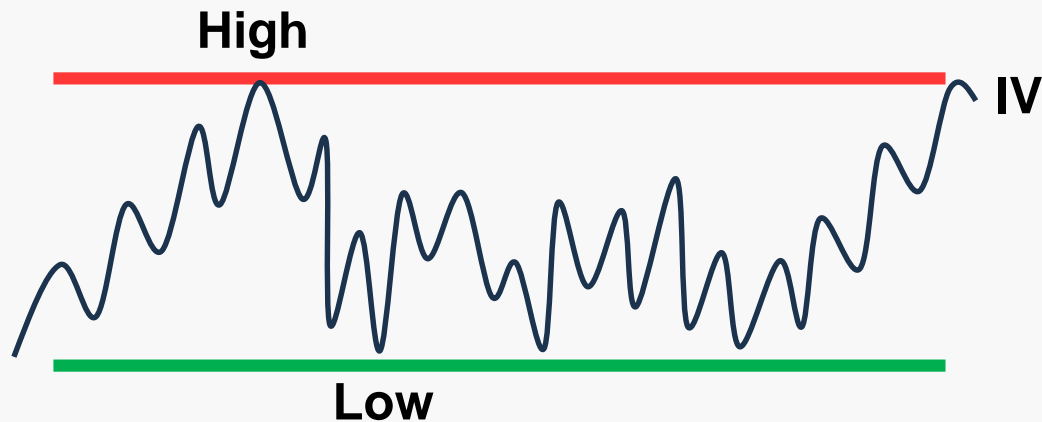
- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating 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

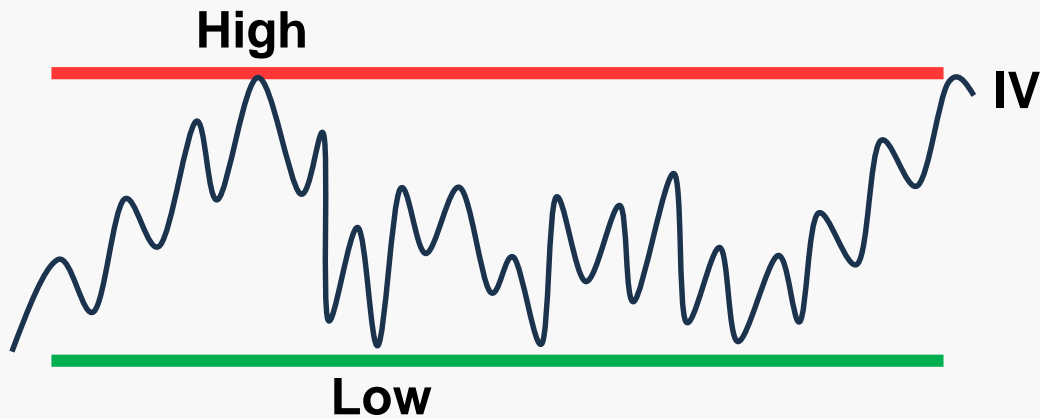


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



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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