



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	22,943	0.1% ▼
Open Interest (OI)	1,97,24,025	1.7% ▲
Change in OI (abs)	1,97,24,025	3,30,525 ▲
Premium / Discount (Abs)	29	2 ▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	49,473	0.3% ▼
Open interest (OI)	41,05,530	2.5% ▲
Change in OI (abs)	41,05,530	98,190 ▲
Premium / Discount (Abs)	139	78 ▲
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	14.68	0.7 ▼
Nifty ATM IV (%)	12.88	4.3 ▼
Bank Nifty ATM IV (%)	16.11	1.1 ▼
PCR (Nifty)	0.90	0.10 ▲
PCR (Bank Nifty)	0.79	0.03 ▼

The Long Ratio for the FII Index Futures dropped to 15.7%, against 16.3% recorded in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CHAMBLFERT	89,56,600	21.1%	560.3	4.3%
BSE	51,45,625	18.1%	5916.75	5.7%
MFSL	34,31,200	16.1%	1050.1	0.1%
APOLLOTYRE	1,21,95,800	11.7%	419.6	1.3%
PEL	98,55,750	10.1%	954.95	2.4%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NYKAA	5,54,27,550	22.8%	166.24	-2.9%
LAURUSLABS	2,40,66,900	8.2%	537.35	-2.0%
PIIND	21,74,000	5.7%	3195	-0.3%
ADANIGREEN	1,60,99,875	5.5%	863	0.0%
POLICYBZR	57,60,300	5.4%	1514.3	-0.3%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
IPCALAB	14,60,550	-9.5%	1487.4	1.7%
COROMANDEL	17,32,850	-7.1%	1740.35	1.4%
GODREJCP	1,48,29,500	-6.5%	1075.2	4.7%
METROPOLIS	6,42,000	-6.3%	1683.55	2.3%
ABB	31,33,500	-5.7%	5342.8	4.0%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ABBOTINDIA	31,440	-9.7%	29477.6	-0.7%
NAVINFLUOR	5,66,650	-6.7%	4044.4	0.0%
MARUTI	27,87,800	-5.2%	12438.75	-2.2%
BAJFINANCE	91,09,125	-2.1%	8406.95	-0.2%
ATUL	4,32,400	-1.6%	5562.95	-0.2%

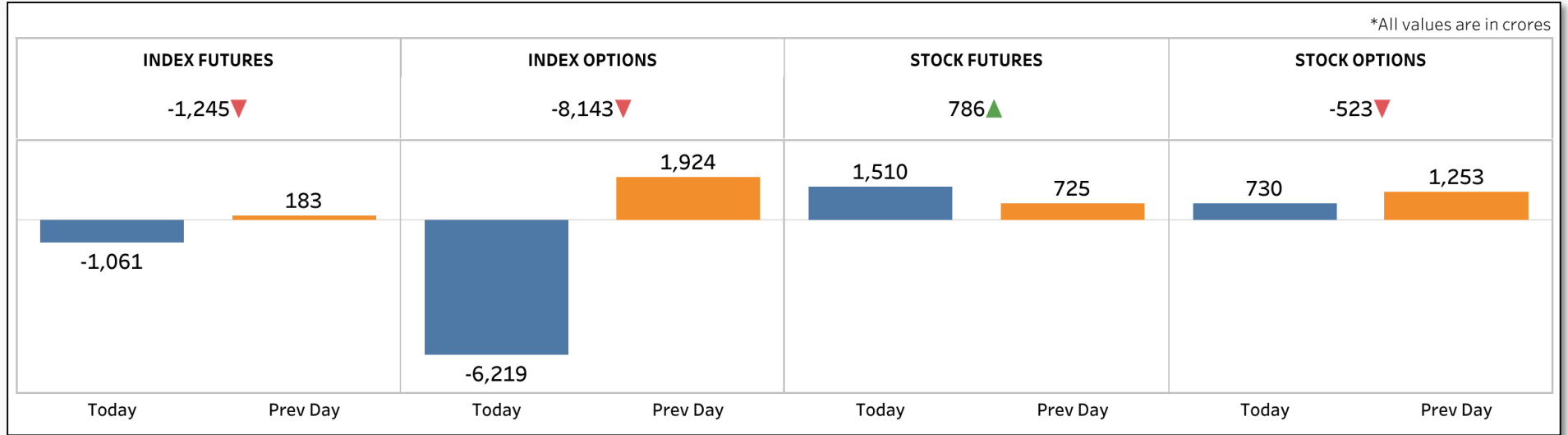
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Data by Participant

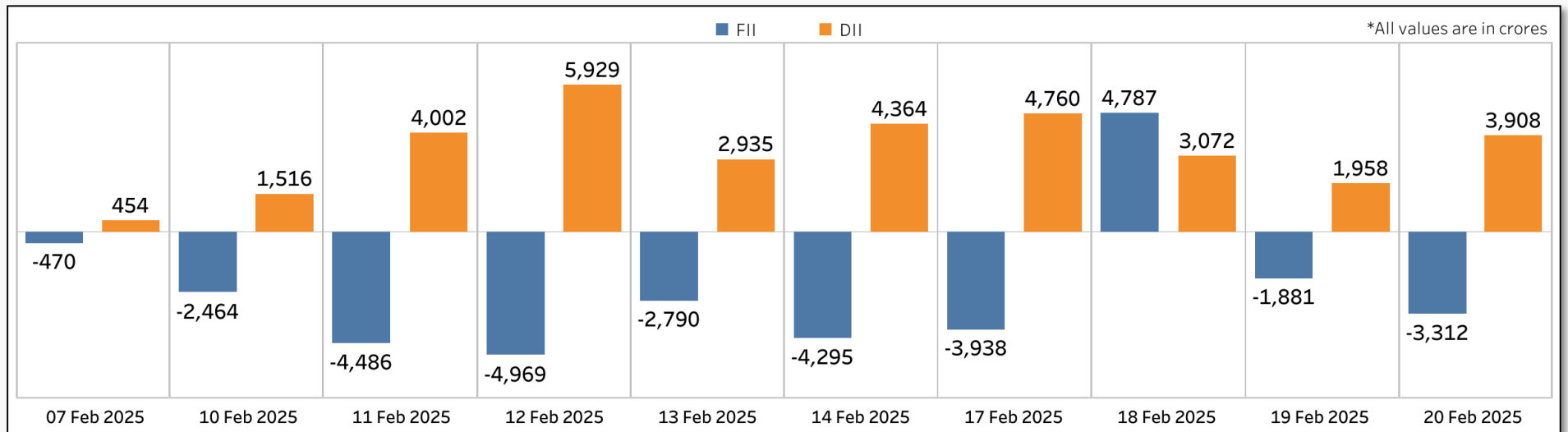
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-34,022 ▼	-8,470 ▼	-80 ▼	16,008 ▲	0	-317 ▼	0	22,451 ▲
12,426	1,799	32,902	16,894	0	4,398	0	4,241
-21,596	-6,671	-4,966	-4,886	0	0	0	-18,210
Net O/S -62,249	Net O/S -169,485	Net O/S 192,847	Net O/S 1,277,194	Net O/S 70	Net O/S 26,625	Net O/S 18,985	Net O/S -3,973,212
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-26,753 ▼	1,613 ▲	-122,674 ▼	-28,670 ▼	60,775 ▲	7,174 ▲	122,754 ▲	-9,789 ▼
29,557	2,904	78,020	21,003	-7,961	-631	49,620	-29,476
56,310	1,291	-44,654	-7,667	-68,736	-7,805	-73,134	-19,687
Net O/S 15,950	Net O/S 141,931	Net O/S -236,649	Net O/S 2,211,411	Net O/S 46,229	Net O/S 929	Net O/S 24,816	Net O/S 484,607
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day

Daily Net Open Interest Change

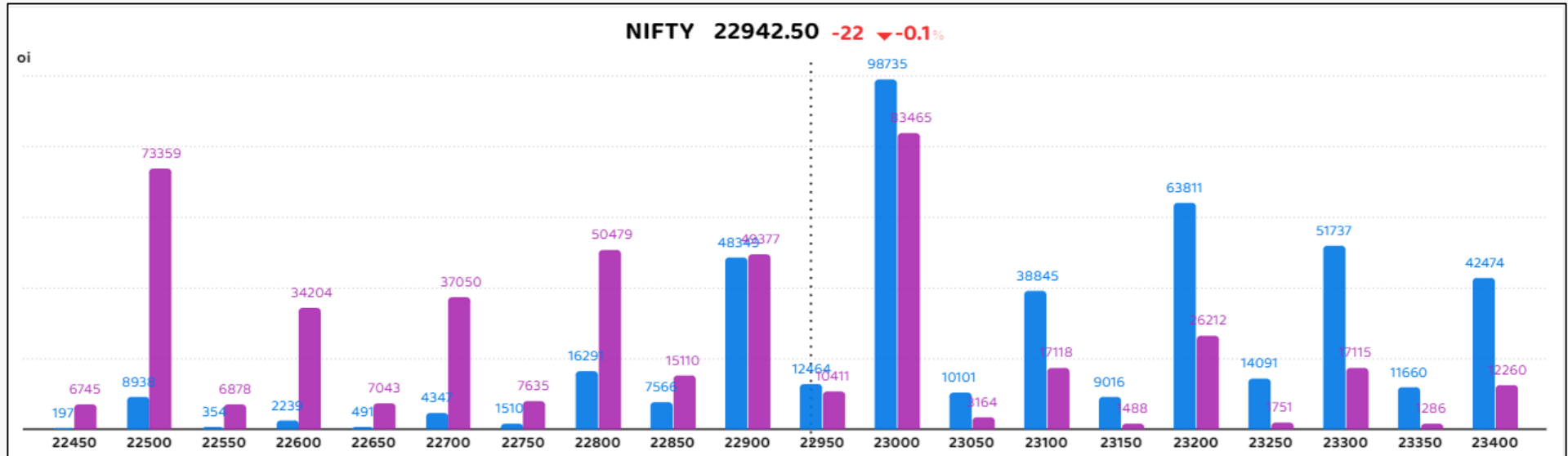


DII and FII Daily Cash Market Flows



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.

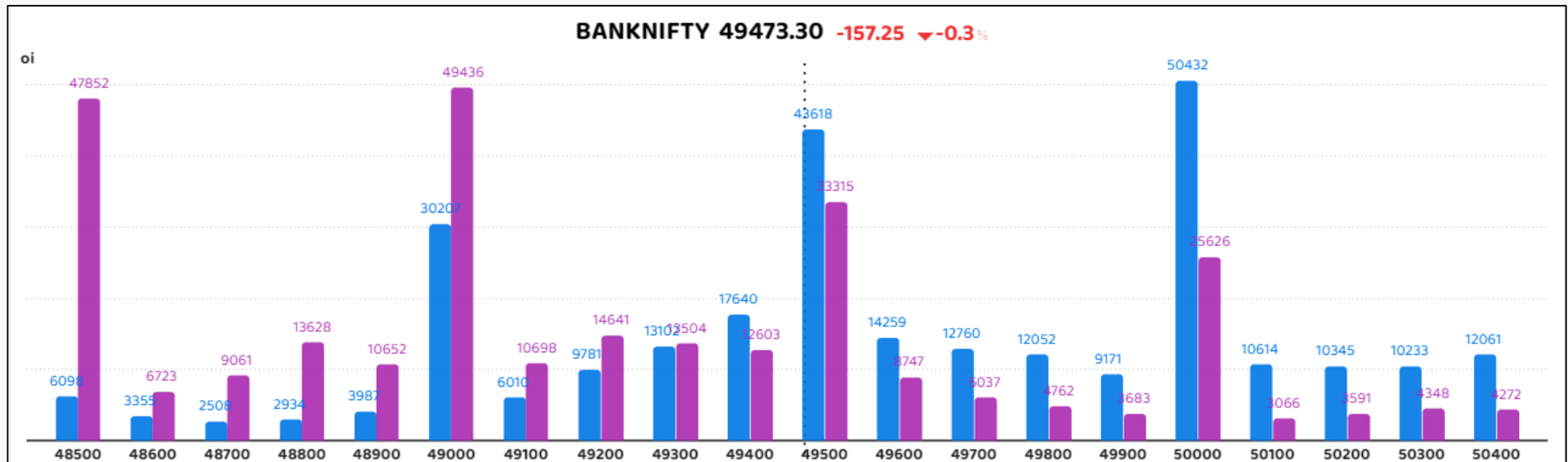
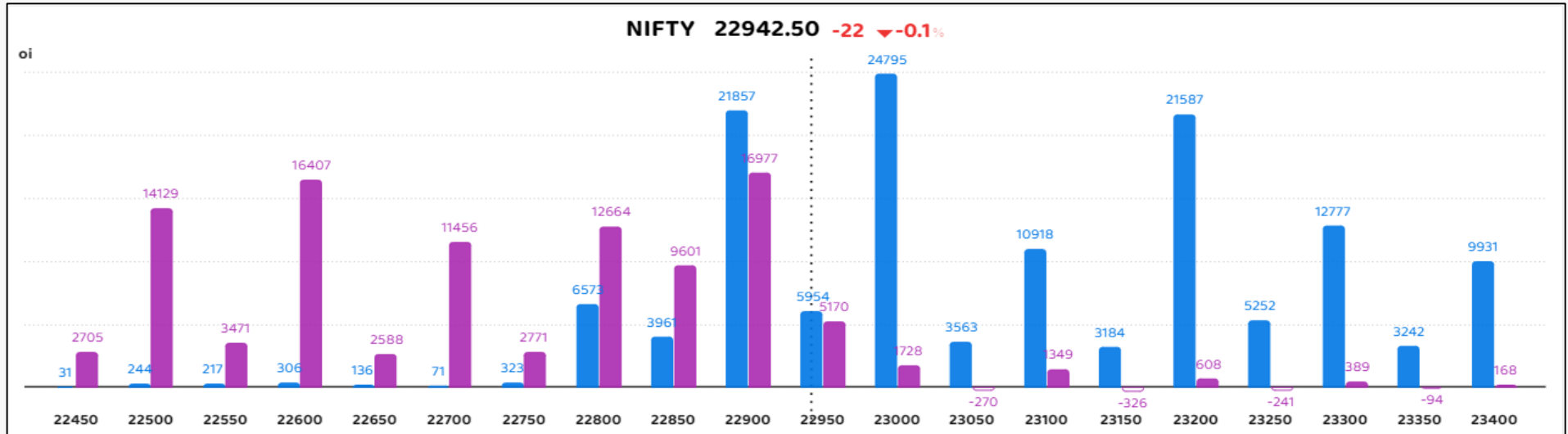


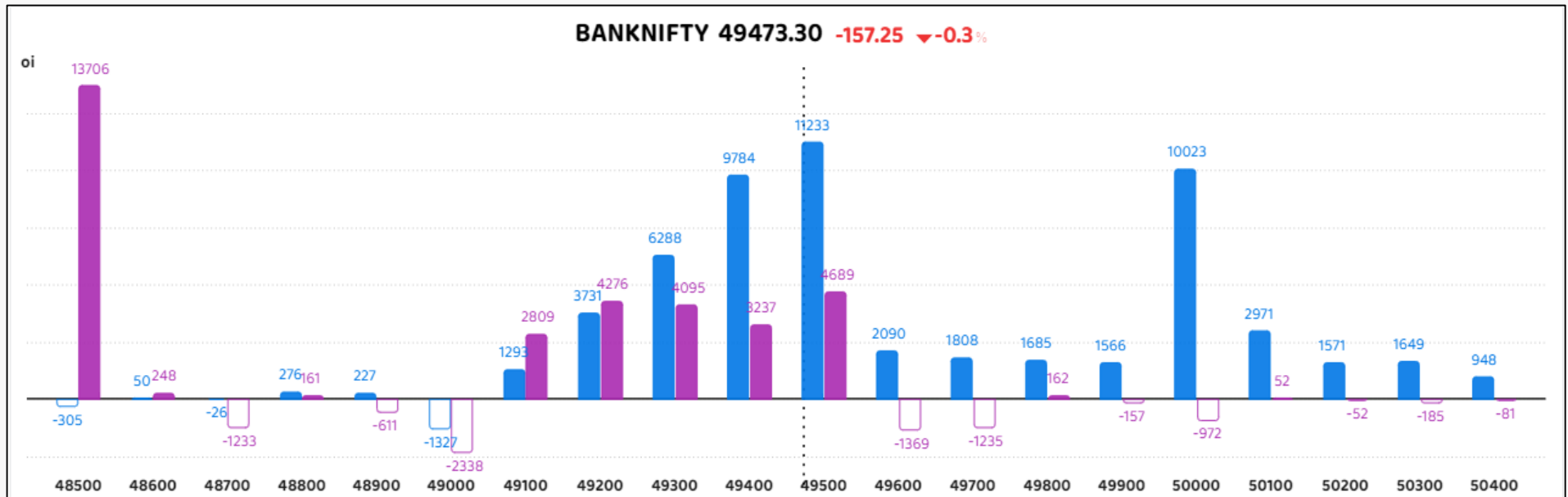
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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	536.75	-1.8	42.8	44.3	16.1	94.5
TATA STEEL LTD	138.04	1.7	73.8	78.1	8.8	93.8
ABBOTT INDIA LTD	29429.65	-1.0	30.4	36.5	6.5	79.8
DIXON TECHNOLOGI	14219.75	0.9	41.5	51.5	1.8	79.8
ICICI PRUDENTIAL	574.8	-0.2	36.0	41.4	15.3	79.3

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
APOLLO HOSPITALS	6390.95	-0.5	17.6	40.3	17.6	0.0
HDFC LIFE INSURA	620	-0.5	24.7	80.6	19.6	8.3
CIPLA LTD	1479.7	1.1	23.5	61.3	18.0	12.7
ASHOK LEYLAND	226.49	0.5	25.8	50.4	22.0	13.3
BANK OF BARODA	213.57	2.2	30.2	66.9	24.3	13.9

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
TATA STEEL LTD	138.04	1.7	73.8	78.1	8.8	99.8
LAURUS LABS LTD	536.75	-1.8	42.8	44.3	16.1	98.2
ICICI PRUDENTIAL	574.8	-0.2	36.0	41.4	15.3	97.1
L&T FINANCE LTD	137.62	1.8	44.5	67.0	5.4	96.6
ABBOTT INDIA LTD	29429.65	-1.0	30.4	36.5	6.5	95.3

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
APOLLO HOSPITALS	6390.95	-0.5	17.6	40.3	17.6	0.0
SHREE CEMENT	28496.75	-0.6	15.5	37.7	11.6	2.3
MANAPPURAM FINAN	205.43	1.3	24.2	64.2	2.7	3.9
TORRENT PHARMA	3095.95	-0.8	19.2	45.4	12.0	5.2
PIDILITE INDS	2821.5	1.9	18.8	33.7	13.3	6.7

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PI INDUSTRIES	3189.05	-0.5	9540	2286	4.2
MRF LTD	109938.7	0.3	3030	816	3.7
TITAN CO LTD	3191.45	-0.6	34285	10060	3.4
CUMMINS INDIA	2818.6	4.8	28839	8474	3.4
MPHASIS LTD	2637.25	1.0	7622	2375	3.2

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
MAX FINANCIAL SE	1046.25	-0.1	1943	3839	2.0
GLENMARK PHARMA	1348.95	-1.5	6017	9442	1.6
AUROBINDO PHARMA	1121.25	-1.2	10105	11315	1.1
UNITED BREWERIES	2028.2	0.0	2801	2905	1.0
GRANULES INDIA	527.05	-0.8	4304	4363	1.0

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
AMBUJA CEMENTS	482.85	0.6	22938	23282	98.5
HINDUSTAN UNILEV	2248.05	-0.1	43305	45551	95.1
TRENT LTD	5099.5	2.2	72554	76558	94.8
HINDUSTAN AERONA	3408.55	1.3	81192	86872	93.5
LARSEN & TOUBRO	3275.8	0.0	82328	90062	91.4

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
CHAMBAL FERTILIS	561.35	4.6	4768	4768	100.0
LARSEN & TOUBRO	3275.8	0.0	42200	42532	99.2
GODREJ PROPERTIE	2076.95	1.4	8875	9326	95.2
MAHINDRA & MAHIN	2839.45	3.0	33067	35290	93.7
LAURUS LABS LTD	536.75	-1.8	7934	8491	93.4

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
NO STOCK OPTION MET THE CONDITIONS MENTIONED IN THE FOOTNOTE					

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
MAHINDRA & MAHIN	2839.45	3.0	120052	147456	81.4

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
LTIMINDTREE LTD	5395.25	-1.4	10403	5462	1.9
MAHINDRA & MAHIN	2839.45	3.0	66435	35362	1.9
ABB INDIA LTD	5344.65	4.3	23508	12778	1.8
DEEPAK NITRITE	1965.6	2.8	14771	8103	1.8
LUPIN LTD	1977.5	0.0	16049	8990	1.8

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
ABB INDIA LTD	5344.65	4.3	13398	7195	1.9
PETRONET LNG LTD	306.85	2.8	13882	7656	1.8
DEEPAK NITRITE	1965.6	2.8	7864	4420	1.8
GLENMARK PHARMA	1348.95	-1.5	6897	3949	1.7
CHAMBAL FERTILIS	561.35	4.6	4768	2777	1.7

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
GODREJ CONSUMER	1074.6	4.9	27255	7675	3.6
MAHINDRA & MAHIN	2839.45	3.0	211666	95762	2.2
CHAMBAL FERTILIS	561.35	4.6	20583	10478	2.0
CROM GREAVES CON	335.45	1.7	7528	3904	1.9
NTPC LTD	325.15	3.3	76485	40501	1.9

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
GODREJ CONSUMER	1074.6	4.9	14559	5452	2.7
MARUTI SUZUKI IN	12440.65	-1.9	171425	79437	2.2
NTPC LTD	325.15	3.3	43372	20628	2.1
MAHINDRA & MAHIN	2839.45	3.0	120052	59828	2.0
ITC LTD	402.05	-1.1	42223	23939	1.8

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	2500	998100	14.7%	2179	2800	1270200	28.5%	INFY	1900	3482000	4.1%	1825	1800	1165200	-1.4%
ADANIPTS	1200	1558400	7.9%	1112	1000	744000	-10.0%	ITC	450	9288000	11.9%	402	400	5452800	-0.5%
APOLLOHOSP	7000	316500	9.5%	6391	6300	99250	-1.4%	JSWSTEEL	1000	1053675	1.9%	981	800	416475	-18.5%
ASIANPAINT	2400	1168000	6.7%	2249	2100	340800	-6.6%	KOTAKBANK	2000	2799200	1.5%	1971	1940	918000	-1.6%
AXISBANK	1050	6995000	3.2%	1017	1000	1808750	-1.7%	LT	3600	1775250	9.9%	3276	3250	627750	-0.8%
BAJAJ-AUTO	9000	200775	4.3%	8630	8600	77775	-0.3%	LTIM	5800	366750	7.5%	5395	5300	73500	-1.8%
BAJAJFINSV	1860	1749500	-1.1%	1881	1800	978000	-4.3%	M&M	3200	1258075	12.7%	2839	2800	641900	-1.4%
BAJFINANCE	8500	685125	1.2%	8399	7500	452375	-10.7%	MARUTI	13200	557350	6.1%	12441	12000	335550	-3.5%
BHARTIARTL	1700	4874450	3.4%	1644	1600	1177525	-2.6%	NESTLEIND	2400	615200	8.8%	2207	2000	205200	-9.4%
BPCL	270	9637200	4.4%	259	250	1481400	-3.3%	NTPC	330	8883000	1.5%	325	390	3727500	19.9%
BRITANNIA	5000	446000	3.5%	4832	4700	101000	-2.7%	ONGC	270	11047575	11.6%	242	240	2556400	-0.8%
CIPLA	1500	1604525	1.4%	1480	1440	457925	-2.7%	POWERGRID	300	8164800	12.9%	266	240	1859400	-9.7%
COALINDIA	400	4625250	8.7%	368	450	2782500	22.3%	RELIANCE	1300	10513000	5.4%	1233	1200	4033000	-2.7%
DIVISLAB	6200	195000	3.7%	5978	5400	165700	-9.7%	SBLIFE	1500	823125	2.1%	1470	1460	307125	-0.7%
DRREDDY	1240	1398750	5.9%	1171	1100	530625	-6.1%	SBIN	800	17534250	9.6%	730	720	4733250	-1.3%
EICHERMOT	5500	439600	12.5%	4888	4700	171325	-3.9%	SUNPHARMA	1800	1764350	7.8%	1669	1700	483700	1.8%
GRASIM	2600	248250	6.0%	2454	2400	273250	-2.2%	TATACONSUM	1060	439128	5.1%	1009	900	590520	-10.8%
HCLTECH	1760	1237600	4.3%	1688	1540	781550	-8.7%	TATAMOTORS	750	9109100	8.7%	690	680	3126750	-1.4%
HDFCBANK	1760	9761400	4.3%	1687	1700	2949100	0.8%	TATASTEEL	150	34721500	8.7%	138	135	13629000	-2.2%
HDFCLIFE	640	3140500	3.2%	620	540	806300	-12.9%	TCS	3900	1026900	3.2%	3779	3800	534625	0.5%
HEROMOTOCO	4200	768900	7.4%	3909	3900	229500	-0.2%	TECHM	1700	836400	2.5%	1658	1500	414000	-9.5%
HINDALCO	610	2479400	-4.5%	639	600	2447200	-6.1%	TITAN	3600	1136100	12.8%	3191	3200	506625	0.3%
HINDUNILVR	2500	1223700	11.2%	2248	2200	491100	-2.1%	ULTRACEMCO	12000	272150	6.3%	11288	11000	91750	-2.5%
ICICIBANK	1300	5846400	4.0%	1250	1200	1759800	-4.0%	UPL	650	1220855	0.4%	647	600	1678845	-7.3%
INDUSINDBK	1100	4447000	5.0%	1048	1000	1017500	-4.5%	WIPRO	320	4071000	2.1%	313	300	4818000	-4.2%

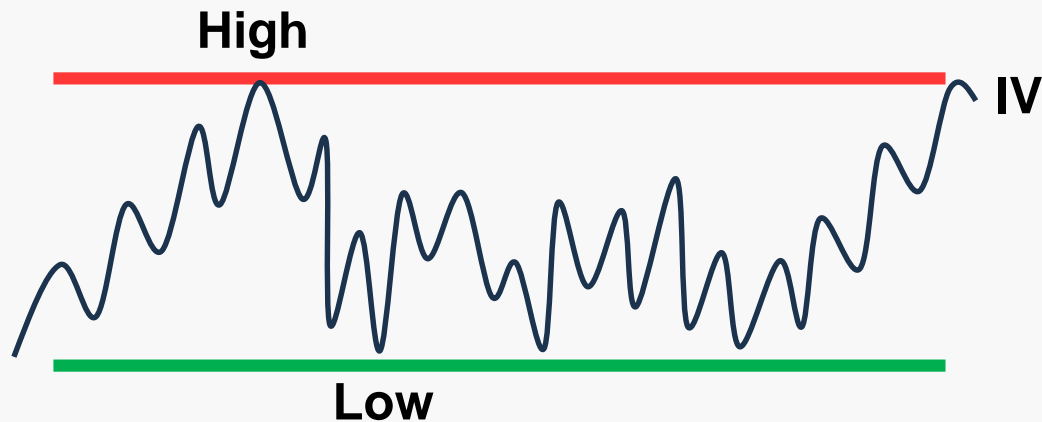
If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green
 If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike 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, 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

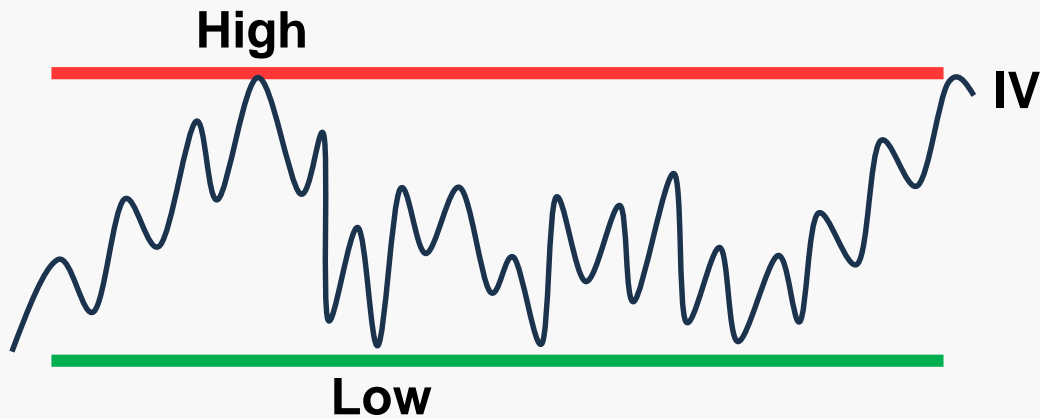


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



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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