



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,026	0.1%▲
Open Interest (OI)	1,93,55,850	0.0%▼
Change in OI (abs)	1,93,55,850	6,900▼
Premium / Discount (Abs)	67	1▲
Inference	Short Covering	

Bank Nifty Futures

	Value	Change
Most recent settlement	49,462	0.3%▲
Open interest (OI)	40,00,560	1.8%▼
Change in OI (abs)	40,00,560	74,310▼
Premium / Discount (Abs)	203	32▼
Inference	Short Covering	

Volatility Insights

	Value	Change
India VIX Index	15.72	0.7▲
Nifty ATM IV (%)	18.35	4.4▲
Bank Nifty ATM IV (%)	18.89	1.9▲
PCR (Nifty)	0.87	0.10▲
PCR (Bank Nifty)	0.75	0.07▲

The Long Ratio for the FII Index Futures **jumped** to 16.2%, 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 (%)
MANAPPURAM	8,53,35,000	34.0%	192.88	8.6%
CHAMBLFERT	66,34,800	11.2%	537.6	2.7%
BAJAJFINSV	1,54,06,000	8.8%	1894.95	2.9%
NBCC	1,99,05,600	5.3%	81.71	0.1%
JIOFIN	12,90,18,450	4.5%	223.38	0.3%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PHOENIXLTD	10,44,400	17.6%	1550.35	-1.2%
POLICYBZR	53,72,900	10.1%	1500.5	-4.7%
JSWENERGY	1,98,54,000	9.3%	432.95	-1.1%
ADANIGREEN	1,40,64,375	9.1%	863.15	-0.2%
ADANIENSOL	82,01,875	8.3%	704.8	-0.7%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
LALPATHLAB	7,68,150	-18.6%	2630	0.3%
GNFC	46,30,600	-12.9%	557.55	0.7%
NAVINFLUOR	7,12,950	-9.2%	4109.65	2.2%
CGPOWER	84,95,550	-8.2%	583.3	5.3%
ABBOTINDIA	42,120	-7.4%	28622.45	2.4%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DEEPAKNTR	29,49,000	-18.0%	1891.3	-0.7%
INDIAMART	6,33,000	-5.4%	2104.65	-0.8%
GUJGASLTD	61,87,500	-4.8%	391.55	-0.5%
COROMANDEL	21,85,400	-3.8%	1710.65	-2.5%
M&M	1,65,00,400	-1.1%	2834.9	-3.7%

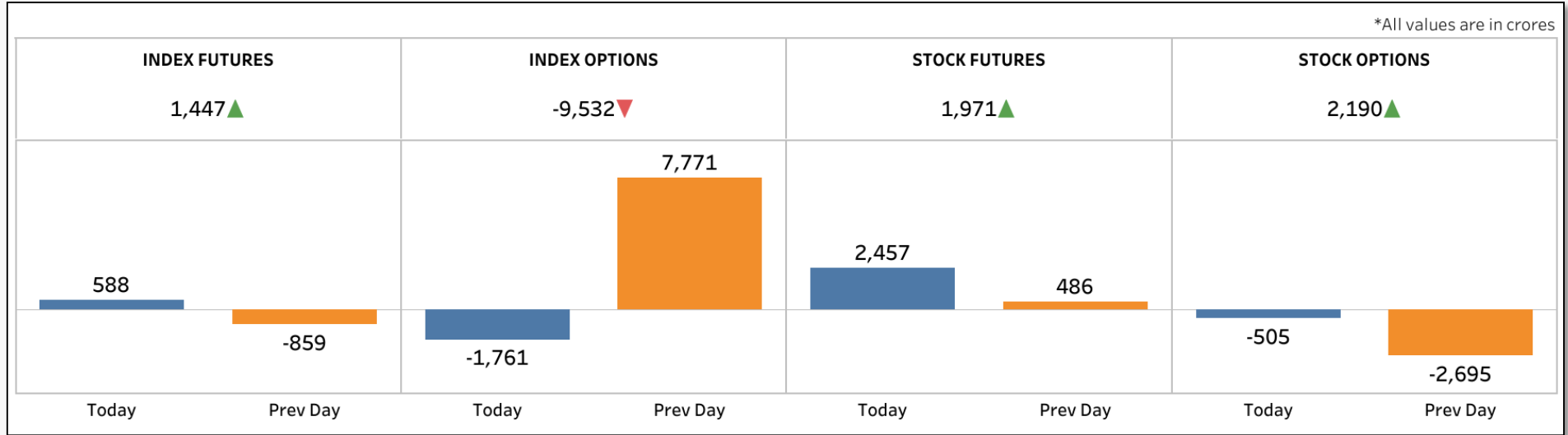
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Data by Participant

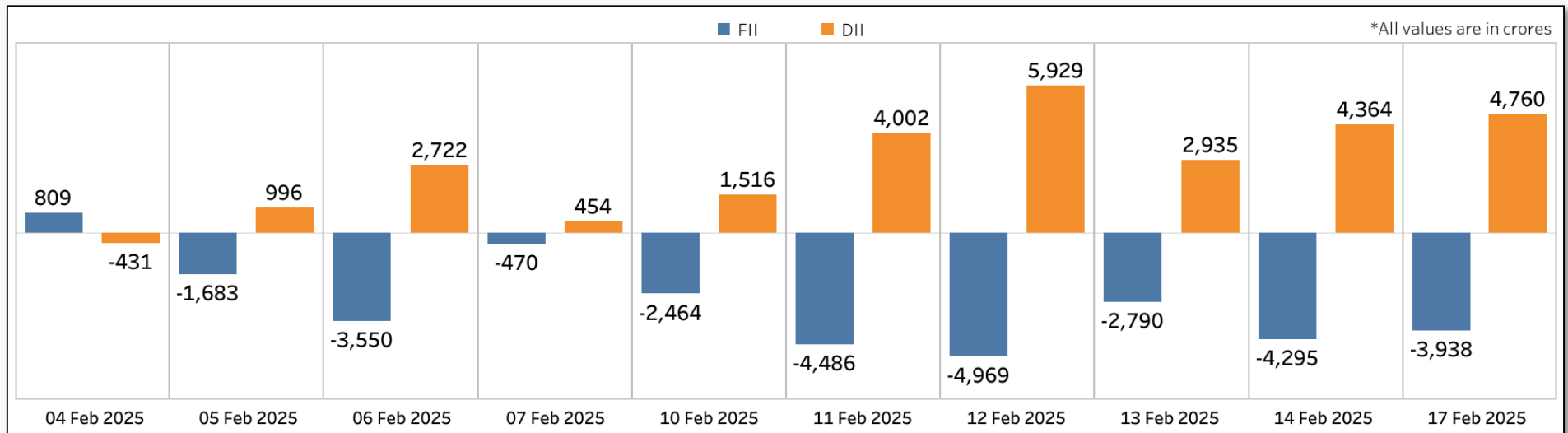
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-9,158 ▼	9,389 ▲	-46,562 ▼	36,934 ▲	0	2,516 ▲	0	-30,622 ▼
4,393	3,639	44,084	47,691	0	-1,069	0	-18,220
-4,765	-5,750	-2,478	10,757	0	-3,585	0	-48,842
Net O/S -50,167	Net O/S -162,981	Net O/S 188,979	Net O/S 1,228,617	Net O/S 70	Net O/S 18,081	Net O/S 18,985	Net O/S -3,977,322
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
-6,106 ▼	-4,898 ▼	140,821 ▲	32,634 ▲	15,264 ▲	-7,007 ▼	-94,261 ▼	-38,946 ▼
	3,038	59,364		64,641			40,819
-59,876	-1,860	-81,457	-722	49,377	6,297	37,374	1,873
-53,770			-33,356		-710	-56,887	
Net O/S -102,037	Net O/S 135,862	Net O/S -241,654	Net O/S 2,204,299	Net O/S 152,134	Net O/S 9,038	Net O/S 33,688	Net O/S 544,406
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

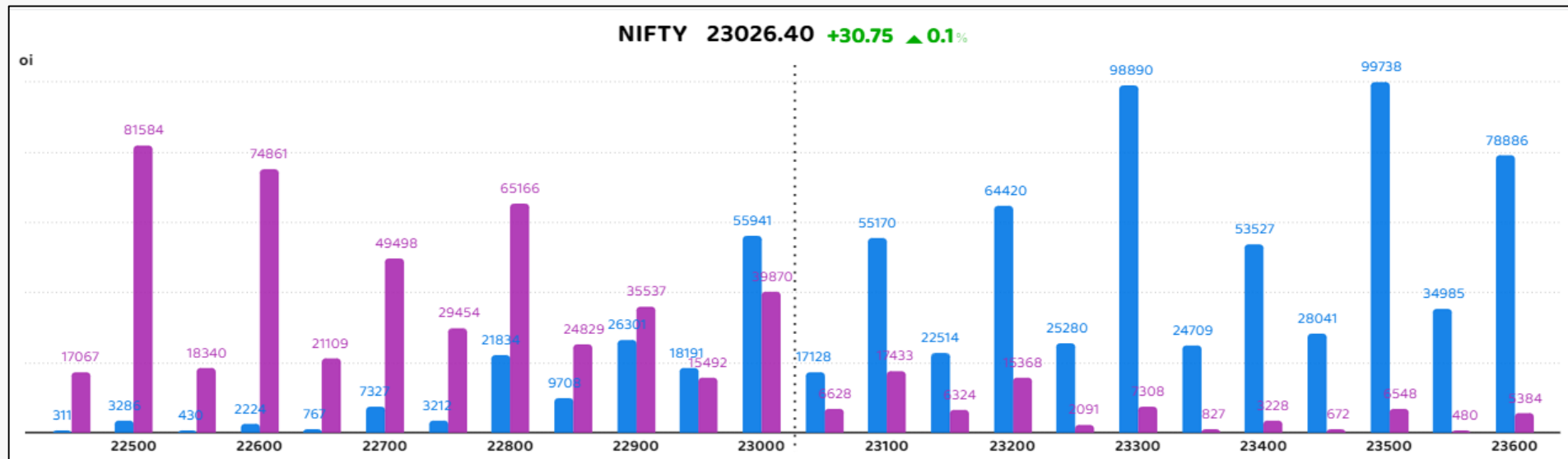


DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 23500 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.

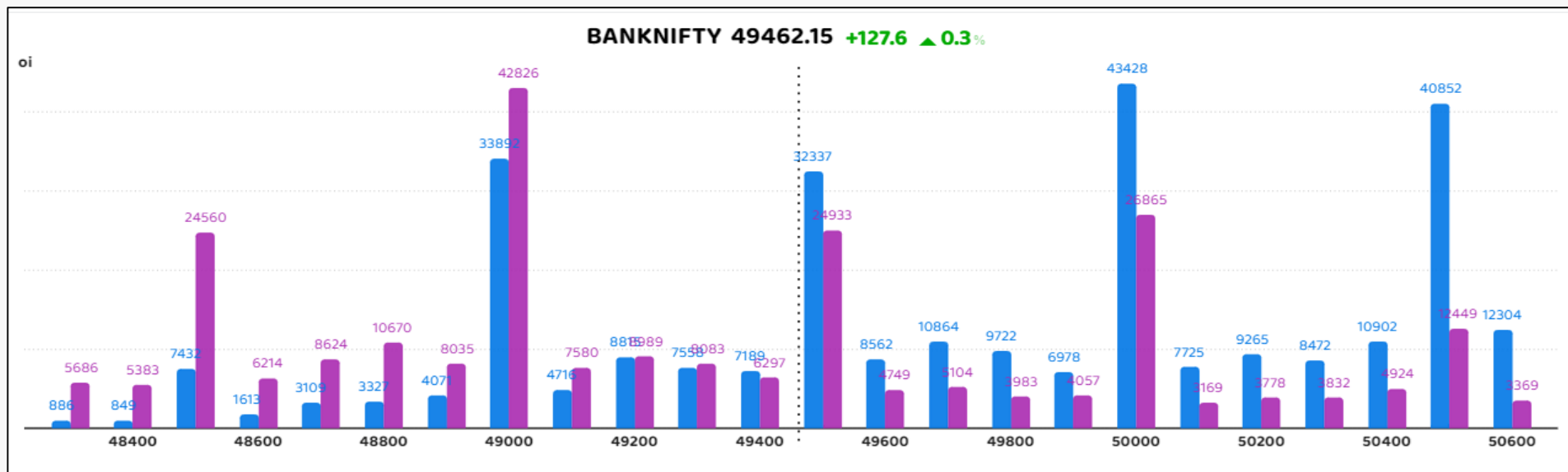
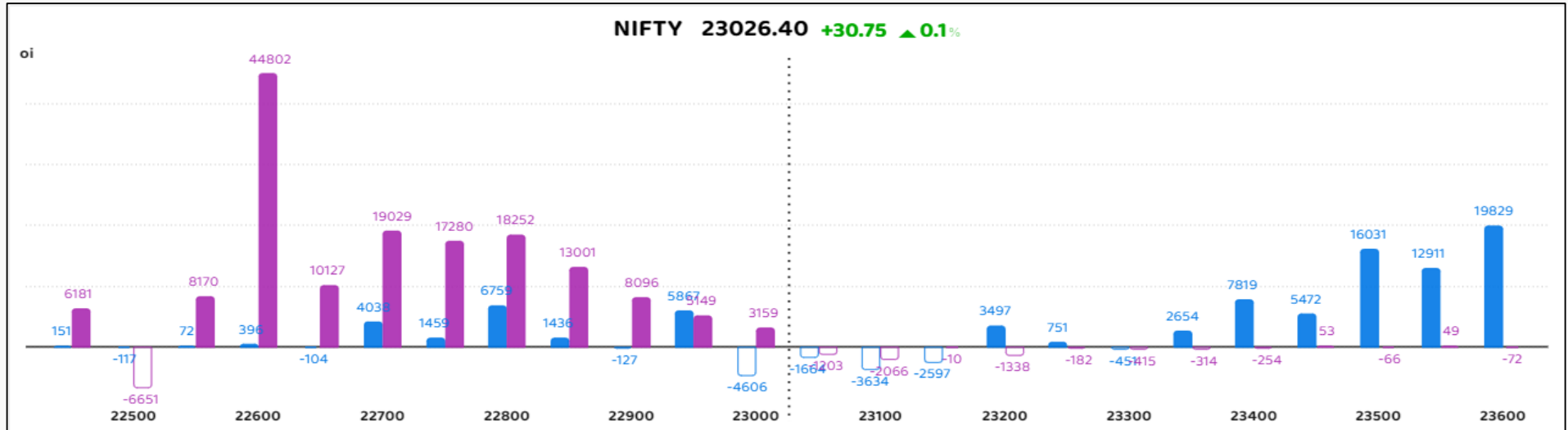


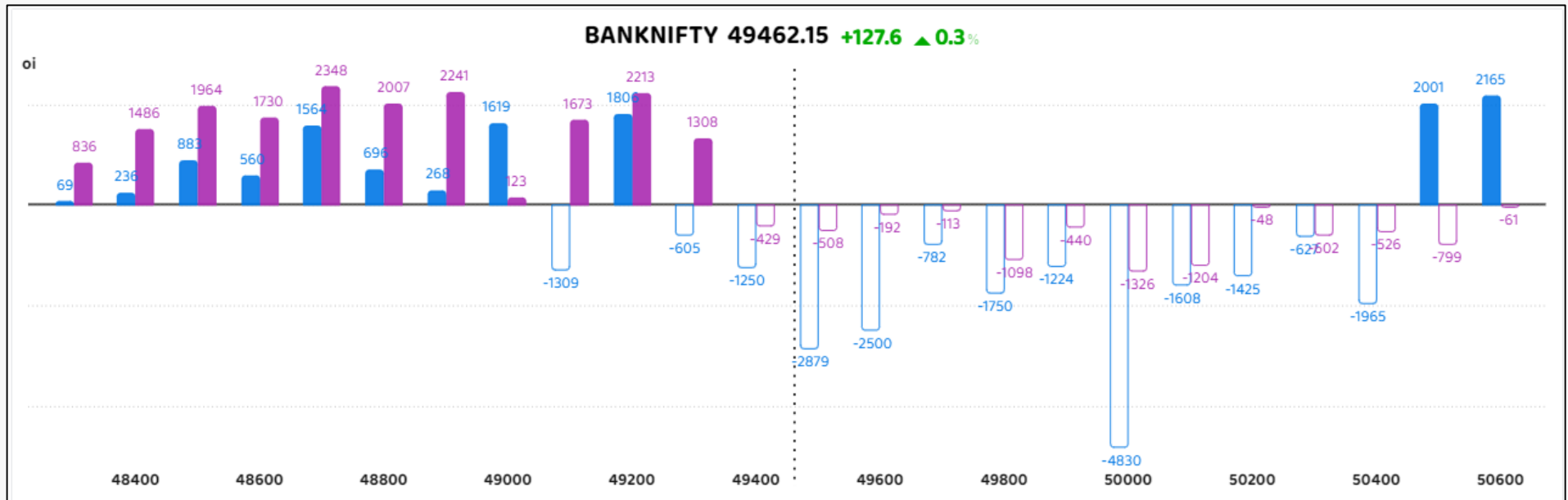
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23600 Call and the 22600 Put



For the Bank Nifty, the biggest open interest changes were seen at the 50000 Call & the 48600 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
LAURUS LABS LTD	555.5	1.7	43.1	44.3	16.1	95.8
DIXON TECHNOLOGI	14199.5	1.3	45.9	51.5	1.8	88.7
MANAPPURAM FINAN	193.29	8.5	54.9	64.2	2.7	84.9
COLGATE PALMOLIV	2462.4	-0.8	28.8	32.8	9.5	83.0
OBEROI REALTY	1590.25	1.2	41.6	47.5	20.3	78.0

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
BHARAT ELECTRON	248.5	-0.7	27.8	81.6	25.5	4.2
HDFC LIFE INSURA	623.25	-0.5	25.3	80.6	19.6	9.4
CIPLA LTD	1474.65	1.0	24.4	61.3	18.0	14.8
ADANI PORTS AND	1082.9	1.9	34.7	97.8	23.2	15.3
BALKRISHNA INDS	2670.55	1.7	24.4	58.3	17.8	16.4

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
LAURUS LABS LTD	555.5	1.7	43.1	44.3	16.1	99.4
ABB INDIA LTD	5241.9	-0.4	45.3	56.4	23.7	99.2
INDRAPRASTHA GAS	190.25	2.5	47.3	59.1	20.3	96.0
OBEROI REALTY	1590.25	1.2	41.6	47.5	20.3	95.1
MANAPPURAM FINAN	193.29	8.5	54.9	64.2	2.7	94.9

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
RAMCO CEMENT/THE	860.75	1.9	15.1	43.6	0.5	0.9
ICICI LOMBARD GE	1725.05	-0.7	17.0	36.3	9.4	5.0
BOSCH LTD	26911.25	-0.3	19.3	39.2	3.3	5.1
BHARAT ELECTRON	248.5	-0.7	27.8	81.6	25.5	5.2
PAGE INDUSTRIES	40921.4	-0.4	19.2	41.8	13.9	7.4

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
ABBOTT INDIA LTD	28569.5	2.6	7726	1489	5.2
PAGE INDUSTRIES	40921.4	-0.4	8299	1633	5.1
ALKEM LABORATORI	4794.3	3.1	21080	5576	3.8
OIL & NATURAL GA	233.65	1.4	50256	13919	3.6
BOSCH LTD	26911.25	-0.3	2606	774	3.4

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
COROMANDEL INTER	1707.55	-2.5	2660	4628	1.7
INDIAMART INTERM	2102.4	-1.0	3247	5114	1.6
CROM GREAVES CON	332.6	0.5	2390	3384	1.4
BHARTI AIRTEL	1675.55	-2.4	74351	104721	1.4
MAX FINANCIAL SE	1065.65	0.7	1194	1589	1.3

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
LARSEN & TOUBRO	3221.85	-0.5	90062	90062	100.0
MAHINDRA & MAHIN	2831.95	-3.8	62595	62595	100.0
HINDUSTAN AERONA	3450.69929	-1.1	78058	78058	100.0
TRENT LTD	5096.45	-0.4	74906	74906	100.0
GODREJ PROPERTIE	1974.05	0.3	27021	27021	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
LARSEN & TOUBRO	3221.85	-0.5	42491	42491	100.0
GLENMARK PHARMA	1373.8	3.8	7242	7242	100.0
MANAPPURAM FINAN	193.29	8.5	7493	7493	100.0
LAURUS LABS LTD	555.5	1.7	8281	8491	97.5
GODREJ PROPERTIE	1974.05	0.3	8940	9326	95.9

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
MAHINDRA & MAHIN	2831.95	-3.8	214851	267181	80.4

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
GLENMARK PHARMA	1373.8	3.8	40831	40831	100.0
MAHINDRA & MAHIN	2831.95	-3.8	140467	147456	95.3
BHARTI AIRTEL	1675.55	-2.4	104721	125628	83.4

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
MANAPPURAM FINAN	193.29	8.5	45109	5324	8.5
GLENMARK PHARMA	1373.8	3.8	53928	10623	5.1
ADITYA BIRLA FAS	255.55	3.2	14704	3863	3.8
MAHINDRA & MAHIN	2831.95	-3.8	214851	85591	2.5
ALKEM LABORATORI	4794.3	3.1	21080	9436	2.2

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
MANAPPURAM FINAN	193.29	8.5	26006	3269	8.0
GLENMARK PHARMA	1373.8	3.8	40831	8890	4.6
ADITYA BIRLA FAS	255.55	3.2	12449	2847	4.4
GUJARAT NARM VLY	557.1	1.0	7542	1895	4.0
MAHINDRA & MAHIN	2831.95	-3.8	140467	55449	2.5

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
DEEPAK NITRITE	1898.5	-0.1	19340	6326	3.1
MANAPPURAM FINAN	193.29	8.5	11426	4664	2.4
PI INDUSTRIES	3118.6	-1.4	14081	6519	2.2
PAGE INDUSTRIES	40921.4	-0.4	20883	9761	2.1
MAHINDRA & MAHIN	2831.95	-3.8	62595	30662	2.0

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
DEEPAK NITRITE	1898.5	-0.1	9160	3535	2.6
GLENMARK PHARMA	1373.8	3.8	7242	3578	2.0
MANAPPURAM FINAN	193.29	8.5	7493	3961	1.9
MUTHOOT FINANCE	2243.9	-0.5	6059	3434	1.8
IPCA LABS LTD	1476.75	0.9	2017	1192	1.7

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	1326300	7.9%	2224	2800	2607900	25.9%	INFY	1900	3808400	3.1%	1842	1700	1170800	-7.7%
ADANIPTS	1200	1758000	10.8%	1083	1000	749200	-7.7%	ITC	450	12604800	10.1%	409	400	3788800	-2.1%
APOLLOHOSP	7000	388750	11.1%	6300	6000	114250	-4.8%	JSWSTEEL	1080	893025	10.9%	974	900	517725	-7.6%
ASIANPAINT	2400	1375400	6.6%	2251	2100	425200	-6.7%	KOTAKBANK	2000	2541200	2.8%	1945	1900	824400	-2.3%
AXISBANK	1050	7527500	5.7%	993	1000	1450000	0.7%	LT	3600	1849050	11.7%	3222	3250	685650	0.9%
BAJAJ-AUTO	9000	228375	5.4%	8537	8500	81900	-0.4%	LTIM	6000	110850	9.6%	5473	5500	66900	0.5%
BAJAJFINSV	1860	1834500	-1.8%	1895	1800	931500	-5.0%	M&M	3200	1406825	13.0%	2832	2800	635600	-1.1%
BAJFINANCE	8500	618125	0.9%	8427	7500	491000	-11.0%	MARUTI	13200	556100	3.4%	12763	12000	326700	-6.0%
BHARTIARTL	1720	5028825	2.7%	1676	1600	1705725	-4.5%	NESTLEIND	2400	763200	8.3%	2217	2300	227400	3.8%
BPCL	270	1E+07	7.0%	252	250	1526400	-0.9%	NTPC	315	9598500	4.2%	302	390	3754500	29.0%
BRITANNIA	5000	422500	0.7%	4964	4700	108600	-5.3%	ONGC	270	11998525	15.6%	234	230	3272500	-1.6%
CIPLA	1500	1643850	1.7%	1475	1460	372125	-1.0%	POWERGRID	300	8411400	14.0%	263	240	2395800	-8.8%
COALINDIA	400	5393850	11.1%	360	450	3070200	25.0%	RELIANCE	1300	12228000	6.1%	1225	1200	4242500	-2.0%
DIVISLAB	6200	199900	4.7%	5924	5400	151300	-8.8%	SBLIFE	1460	786000	-1.1%	1476	1460	319875	-1.1%
DRREDDY	1240	1385000	3.4%	1199	1200	550625	0.1%	SBIN	800	21006750	9.9%	728	720	5130000	-1.1%
EICHERMOT	5500	491750	15.9%	4745	4700	170800	-1.0%	SUNPHARMA	1800	1758050	5.0%	1714	1700	979650	-0.8%
GRASIM	2600	276500	5.5%	2464	2400	236250	-2.6%	TATACONSUM	1060	526224	3.6%	1023	900	634296	-12.0%
HCLTECH	1760	1256500	2.9%	1710	1700	771750	-0.6%	TATAMOTORS	750	9956100	9.2%	687	600	3177900	-12.6%
HDFCBANK	1760	9713000	2.5%	1717	1700	2642750	-1.0%	TATASTEEL	150	34017500	11.7%	134	130	14547500	-3.2%
HDFCLIFE	640	2824800	2.7%	623	540	808500	-13.4%	TCS	4200	1183000	7.6%	3905	4000	469875	2.4%
HEROMOTOCO	4200	730500	8.3%	3876	3900	263550	0.6%	TECHM	1700	863400	2.1%	1665	1640	495000	-1.5%
HINDALCO	620	3897600	1.5%	611	600	2167200	-1.8%	TITAN	3600	1256850	11.3%	3233	3200	588525	-1.0%
HINDUNILVR	2500	1848600	7.3%	2329	2200	516000	-5.6%	ULTRACEMCO	12000	280350	4.4%	11490	11000	90550	-4.3%
ICICIBANK	1300	6746600	3.9%	1251	1250	2408700	-0.1%	UPL	640	1570445	1.2%	632	600	1524375	-5.1%
INDUSINDBK	1100	4874500	4.9%	1048	1000	1206000	-4.6%	WIPRO	320	4587000	4.8%	305	300	3591000	-1.8%

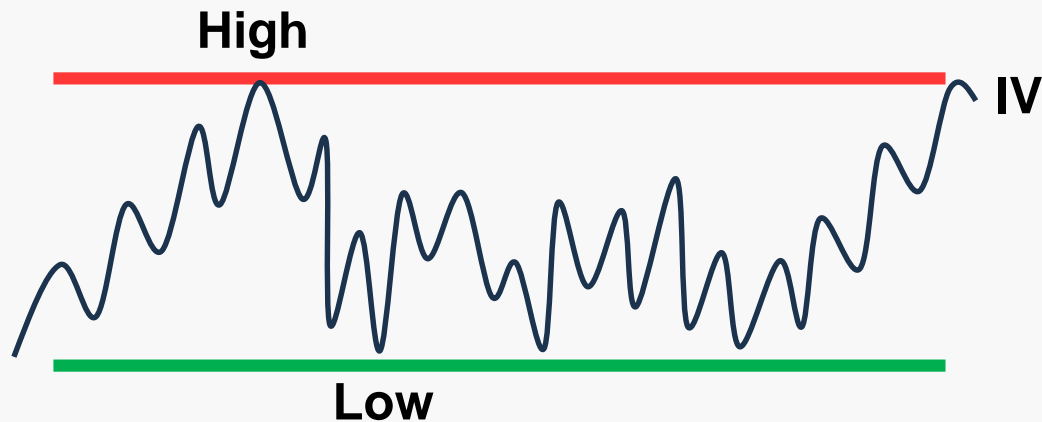
*If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green
If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike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

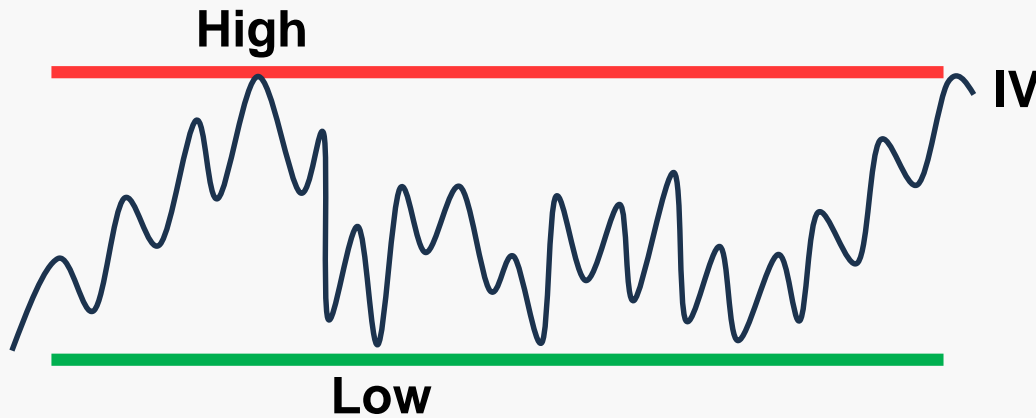


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



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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Administrative office address: Aurum Q Parc, Q2 Building, Unit No. 1001, 10th Floor, Level – 6, Plot No. 4/1 TTC, Thane – Belapur Road, Ghansoli, Navi Mumbai, Pin Code – 400710.

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Sr. No	Name	Designation	E-mail
1	Rajesh Palviya	SVP Research (Head Technical & Derivatives)	rajesh.palviya@axissecurities.in
2	Hemang Gor	Derivative Analyst	hemang.gor@axissecurities.in
3	Rahil Vora	Derivative Analyst	rahil.vora@axissecurities.in