



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	22,584	0.6%▲
Open Interest (OI)	1,99,49,850	1.2%▼
Change in OI (abs)	1,99,49,850	2,42,625▼
Premium / Discount (Abs)	76	29▲
<b>Inference</b>	<b>Short Covering</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	48,486	0.7%▲
Open interest (OI)	45,99,840	1.3%▲
Change in OI (abs)	45,99,840	58,230▲
Premium / Discount (Abs)	131	32▲
<b>Inference</b>	<b>Long Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	13.41	0.1▲
Nifty ATM IV (%)	12.83	0.9▲
Bank Nifty ATM IV (%)	14.20	0.6▲
PCR (Nifty)	1.05	0.03▲
PCR (Bank Nifty)	1.03	0.09▲

The Long Ratio for the FII Index Futures **jump** to 20.1%, against 18.5% recorded in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
POLICYBZR	73,54,425	14.1%	1358.55	2.2%
FINNIFTY	63,440	12.1%	23576.7	1.1%
BAJAJFINSV	1,91,64,500	11.6%	1877.55	3.6%
CAMS	18,53,125	10.2%	3392.25	0.6%
GODREJCP	1,63,18,500	5.7%	1056.75	2.6%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MFSL	73,11,200	10.3%	1045.6	-0.8%
AUBANK	2,72,21,000	5.8%	493.55	-2.1%
IIFL	80,32,100	4.7%	308.5	-1.8%
LTIM	23,46,150	4.3%	4365.95	-2.5%
NCC	1,40,27,825	4.2%	184.74	-0.9%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
RAMCOCEM	58,61,600	-5.8%	833.6	3.7%
KEI	13,23,000	-5.1%	3115.35	2.5%
INDUSINDBK	5,68,61,500	-5.0%	678.15	0.7%
JKCEMENT	5,07,250	-3.6%	4372.25	2.2%
DEEPAKNTR	14,70,300	-3.1%	1981.3	1.6%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CDSL	1,29,87,450	-2.9%	1061.4	-0.7%
BEL	10,08,75,750	-1.6%	280.08	-0.1%
BANDHANBNK	9,65,35,600	-1.2%	138.56	-0.8%
ITC	7,96,19,200	-0.4%	408.85	-0.9%
GMRAIRPORT	22,80,26,250	-0.3%	74.36	-0.2%

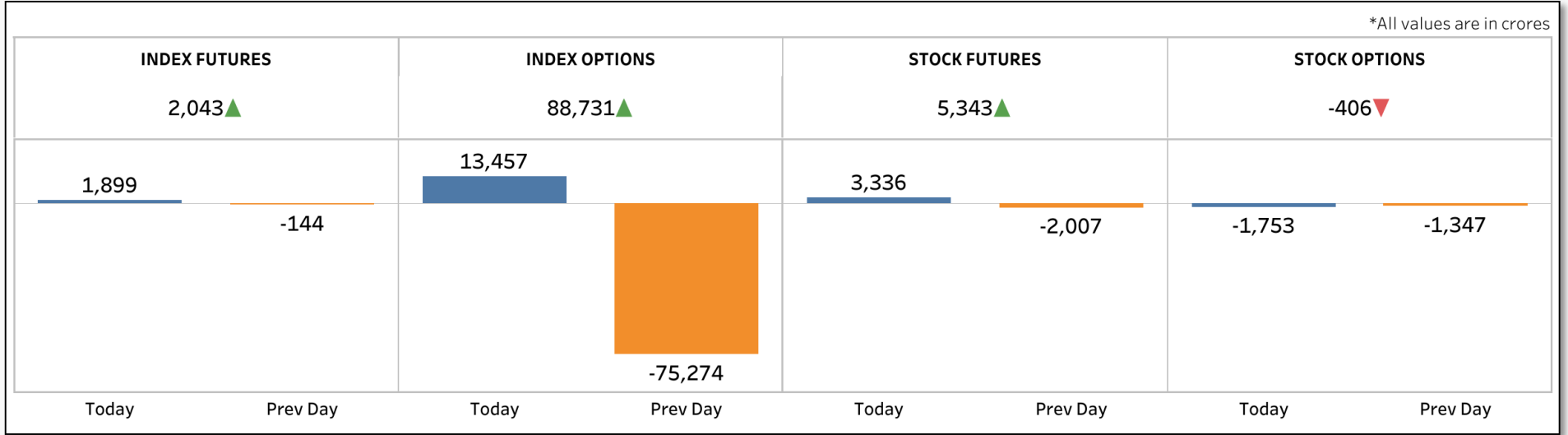
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Data by Participant

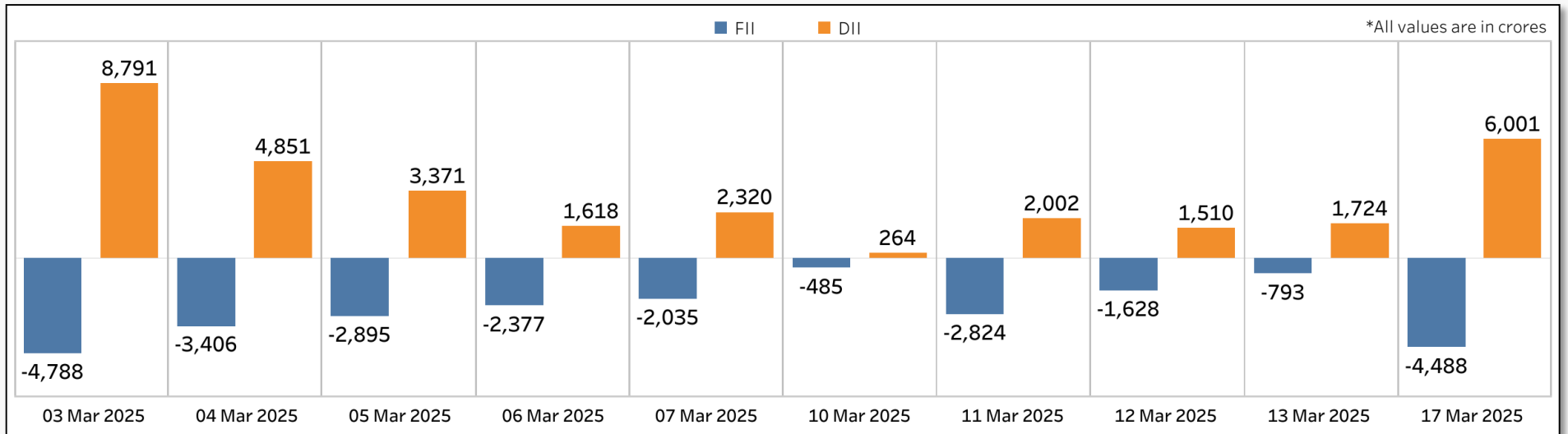
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
136,107 ▲	12,703 ▲	103,617 ▲	93,652 ▲	97 ▲	-3,522 ▼	124 ▲	-52,424 ▼
63,004			57,018				26,588
	12,150	9,670			86	3,608	
-73,103			-36,634	-276	-373		-25,836
	-553					0	
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
109,402	-149,165	233,668	1,550,148	926	59,623	18,154	-3,910,412
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
-206,053 ▼	-1,234 ▼	63,575 ▲	-16,810 ▼	69,849 ▲	-7,947 ▼	-167,319 ▼	-24,418 ▼
				124,226		143,790	
19,099		13,857	12,820				
	-5,282		-3,990				
	-4,048			54,377			
					993		
-186,954		-49,718			-6,954		-27,192
						-23,529	
							-2,774
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-316,217	129,212	-230,289	2,029,774	205,889	-39,670	-21,536	330,490
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day

## Daily Net Open Interest Change

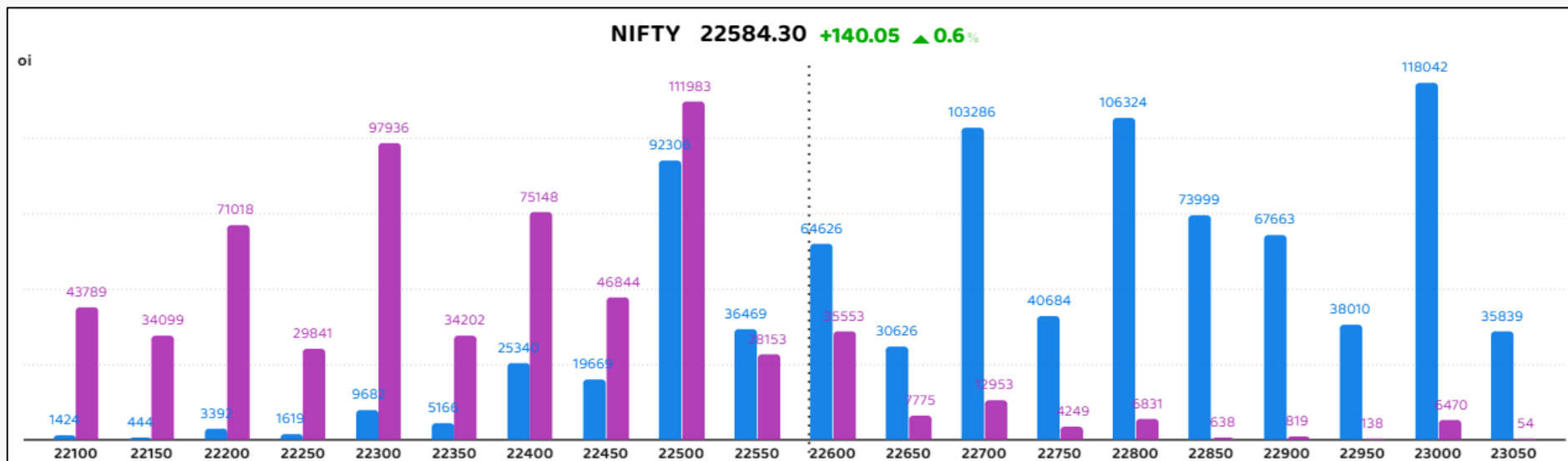


## DII and FII Daily Cash Market Flows



## 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 49000 Call and the 48000 Put saw the most amount of open interest.

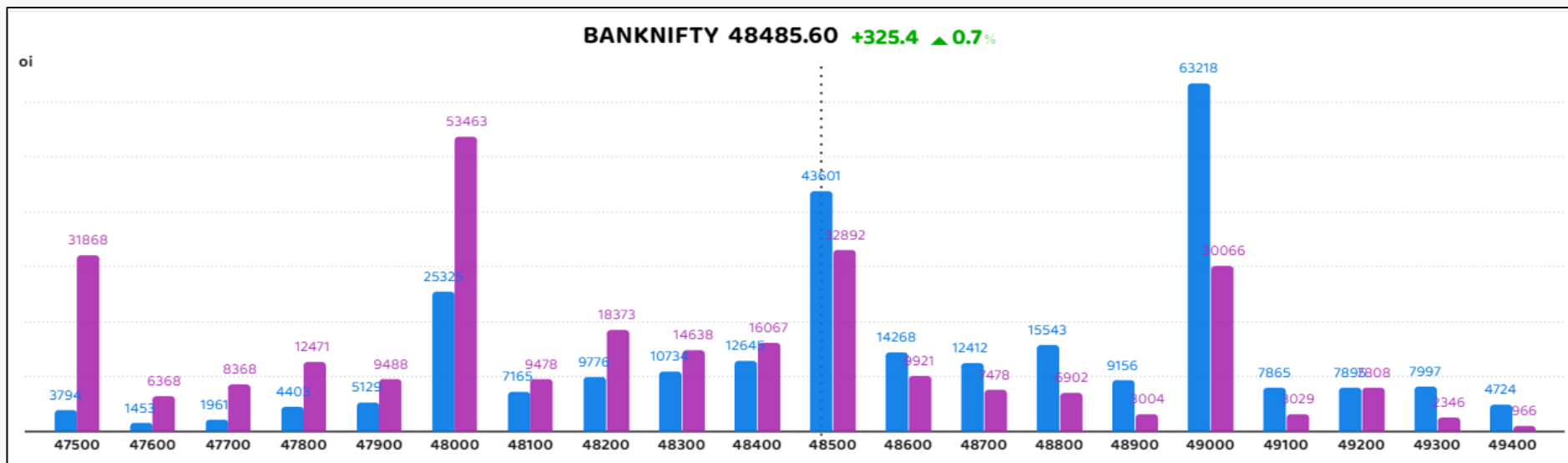
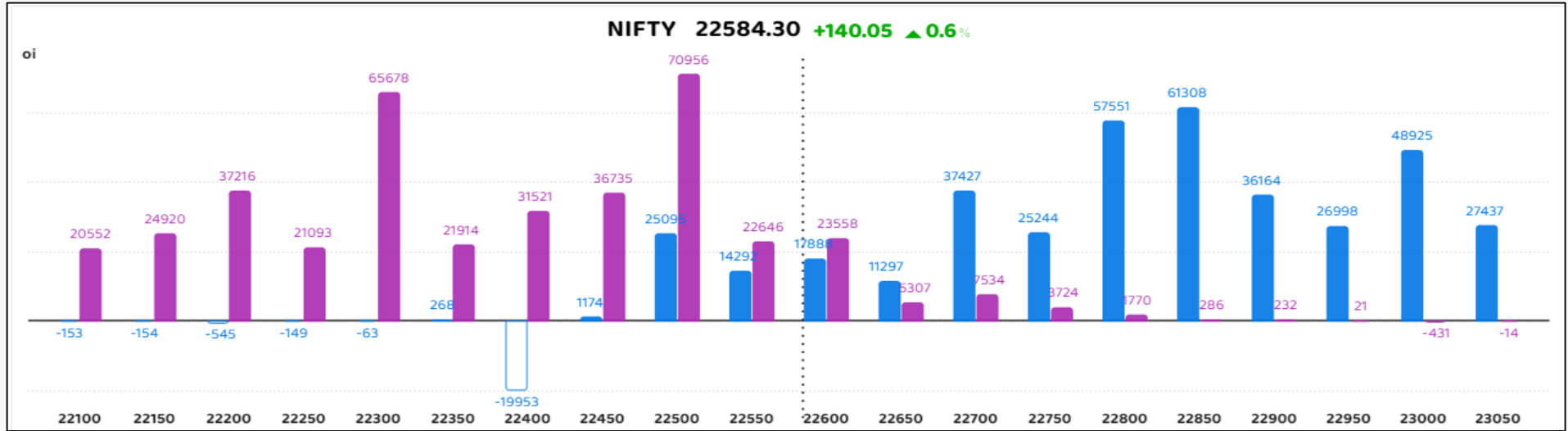


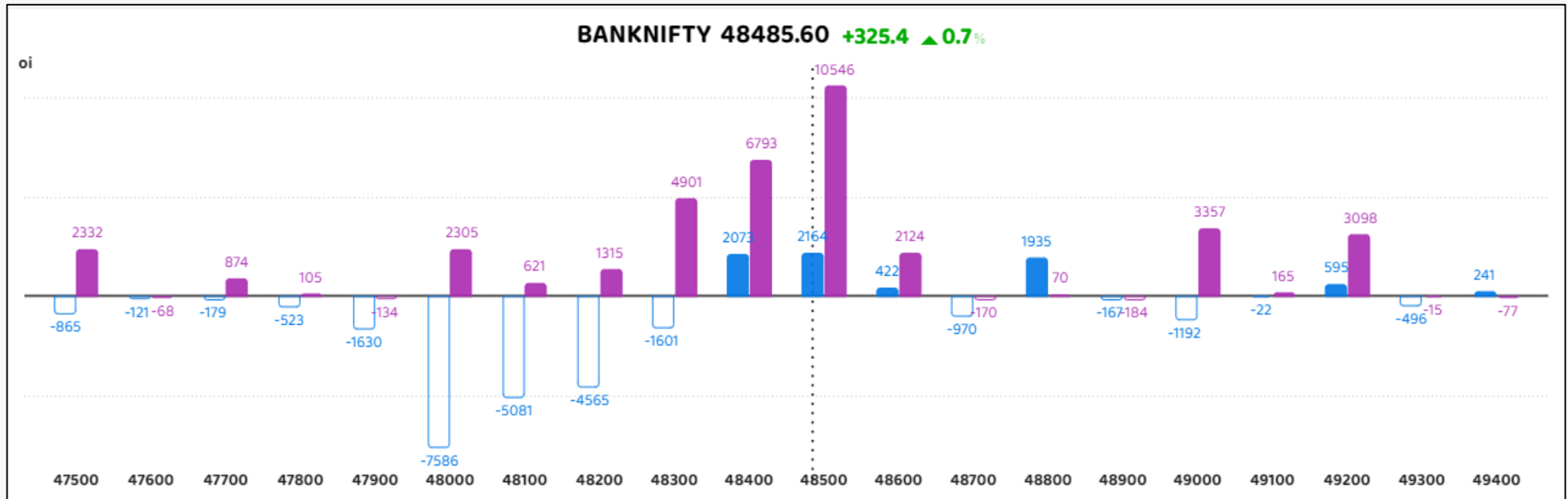
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 22850 Call and the 22500 Put



For the Bank Nifty, the biggest open interest changes were seen at the 48000 Call & the 48500 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
LTIMINDTREE LTD	4359.8	-2.4	37.3	37.3	20.0	100.0
OBEROI REALTY	1520.45	-0.9	45.0	47.5	23.1	89.6
DIXON TECHNOLOGI	13098.2	-1.7	46.0	51.5	1.8	89.0
PB FINTECH LTD	1354.8	1.7	50.2	53.5	30.7	85.7
DALMIA BHARAT LT	1663.35	3.5	38.6	41.8	20.0	85.6

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INDIAN RENEWABLE	138.16	-1.2	51.8	63.1	51.8	0.0
MRF LTD	105410.8	0.4	7.6	36.7	7.6	0.0
PHOENIX MILLS	1560.35	-0.3	34.1	58.6	33.5	2.6
PATANJALI FOODS	1725.05	0.4	36.0	65.0	34.2	5.9
HDFC LIFE INSURA	629.8	1.2	26.5	80.6	19.6	11.3

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
LTIMINDTREE LTD	4359.8	-2.4	37.3	37.3	20.0	100.0
DALMIA BHARAT LT	1663.35	3.5	38.6	41.8	20.0	99.6
OBEROI REALTY	1520.45	-0.9	45.0	47.5	23.1	99.2
INDUSIND BANK	677.4	0.8	50.2	64.6	12.4	99.0
BSE LTD	3962.35	0.9	59.4	64.8	37.1	97.4

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INDIAN RENEWABLE	138.16	-1.2	51.8	63.1	51.8	0.0
MRF LTD	105410.8	0.4	7.6	36.7	7.6	0.0
PIDILITE INDS	2748.9	0.7	17.0	33.7	13.3	2.6
CHOLAMANDALAM IN	1455.6	0.8	27.0	45.3	24.3	5.3
SHREE CEMENT	27734.6	0.9	17.6	37.7	11.6	5.5



### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
TITAGARH RAIL SY	690.7	-0.5	9247	1512	6.1
GRANULES INDIA	488.6	3.8	13417	2680	5.0
BOSCH LTD	26345.85	-0.1	2582	540	4.8
SUPREME INDS LTD	3345.1	0.0	3150	689	4.6
MRF LTD	105410.8	0.4	2412	649	3.7

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
PHOENIX MILLS	1560.4	-0.3	1660	2409	1.5
ACC LTD	1883.1	1.6	5401	7133	1.3
PI INDUSTRIES	3373.3	2.3	5335	6005	1.1
L&T FINANCE LTD	140.2	1.1	4157	4352	1.0
MAHANAGAR GAS LT	1311.6	2.0	4195	4154	1.0

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
IIFL FINANCE LTD	307.45	-1.9	2524	2524	100.0
TITAGARH RAIL SY	690.7	-0.5	5314	5314	100.0
SOLAR INDUSTRIES	10088.65	-0.1	2920	2920	100.0
TATA TECHNOLOGIE	628.45	-1.3	3917	3917	100.0
INDIAN RENEWABLE	138.16	-1.2	5035	5035	100.0

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
JINDAL STAINLESS	641.6	1.5	1696	1696	100.0
IIFL FINANCE LTD	307.45	-1.9	2169	2169	100.0
TITAGARH RAIL SY	690.7	-0.5	2040	2040	100.0
SOLAR INDUSTRIES	10088.65	-0.1	2007	2007	100.0
PRESTIGE ESTATES	1099.5	-2.7	3420	3420	100.0

### Call Volume Relative to Record High

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

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
NO STOCK OPTION MET THE CONDITIONS HIGHLIGHTED IN THE FOOTNOTE					

### Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
TITAGARH RAIL SY	690.7	-0.5	5314	2494	2.1
INDUSIND BANK	677.4	0.8	111201	53773	2.1
LTIMINDTREE LTD	4359.8	-2.4	14297	8265	1.7
WIPRO LTD	259.85	-1.6	27177	15875	1.7
BIRLASOFT LTD	388.9	0.8	8695	5198	1.7

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
LTIMINDTREE LTD	4359.8	-2.4	8987	4274	2.1
SOLAR INDUSTRIES	10088.65	-0.1	2007	1126	1.8
RAMCO CEMENT/THE	831.3	3.7	3173	1943	1.6
AVENUE SUPERMART	3825.3	0.7	7358	4555	1.6
SUN PHARMA INDU	1704.3	1.2	18543	11505	1.6

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
MUTHOOT FINANCE	2290.2	4.3	49429	11425	4.3
LTIMINDTREE LTD	4359.8	-2.4	55001	15842	3.5
SBI LIFE INSURAN	1434.25	3.5	32117	10303	3.1
DR REDDY'S LABS	1150.7	3.9	46679	15430	3.0
MCX INDIA LTD	4960	3.2	80059	28471	2.8

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
LTIMINDTREE LTD	4359.8	-2.4	43858	11618	3.8
MUTHOOT FINANCE	2290.2	4.3	21649	7775	2.8
INDIAN ENERGY EX	162.67	5.9	14533	5548	2.6
MCX INDIA LTD	4960	3.2	38312	16311	2.3
SBI LIFE INSURAN	1434.25	3.5	12794	5820	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	2600	1250100	15.4%	2253	2600	2709600	15.4%	INFY	1700	3167200	6.9%	1590	1500	1293600	-5.7%
ADANIPTS	1200	1202800	5.5%	1137	1100	1083600	-3.3%	ITC	420	5950400	3.0%	408	400	4627200	-1.9%
APOLLOHOSP	6300	106875	2.3%	6157	6000	66500	-2.5%	JSWSTEEL	1020	882225	1.4%	1006	1000	819450	-0.6%
ASIANPAINT	2300	818200	3.6%	2220	2200	587600	-0.9%	KOTAKBANK	2000	1626000	0.3%	1993	1900	1259200	-4.7%
AXISBANK	1050	2133125	1.5%	1034	1000	2165000	-3.3%	LT	3250	985950	2.4%	3173	3100	542250	-2.3%
BAJAJ-AUTO	8000	237075	6.9%	7486	7000	107475	-6.5%	LTIM	4800	293700	10.1%	4360	4300	282300	-1.4%
BAJAJFINSV	1900	1542500	1.5%	1872	1800	795000	-3.8%	M&M	3000	1380225	10.9%	2705	2500	616350	-7.6%
BAJFINANCE	9000	581875	4.9%	8580	8000	382625	-6.8%	MARUTI	12000	301700	3.9%	11554	11500	120000	-0.5%
BHARTIARTL	1700	4560475	3.7%	1639	1600	1997850	-2.4%	NESTLEIND	2240	234400	3.0%	2174	2100	300000	-3.4%
BPCL	270	1.6E+07	3.3%	261	260	2278800	-0.5%	NTPC	340	12721500	2.5%	332	310	3472500	-6.5%
BRITANNIA	5000	127600	7.0%	4675	4100	87800	-12.3%	ONGC	240	10481625	4.5%	230	220	4106025	-4.2%
CIPLA	1500	870025	0.5%	1493	1240	523250	-16.9%	POWERGRID	280	6942600	4.7%	267	260	1915200	-2.7%
COALINDIA	395	4978050	2.4%	386	450	2718450	16.7%	RELIANCE	1300	9177000	4.9%	1239	1200	4715500	-3.1%
DIVISLAB	6000	144500	5.8%	5671	4700	94200	-17.1%	SBLIFE	1500	563250	4.6%	1434	1400	285000	-2.4%
DRREDDY	1200	2606875	4.3%	1151	1100	754375	-4.4%	SBIN	800	7209750	10.6%	723	700	5227500	-3.2%
EICHERMOT	5100	233450	1.0%	5050	4800	225925	-5.0%	SUNPHARMA	1680	2095450	-1.4%	1704	1600	1050700	-6.1%
GRASIM	2420	309000	0.9%	2399	2400	172750	0.0%	TATACONSUM	1000	724128	6.3%	940	900	470136	-4.3%
HCLTECH	1600	714000	3.5%	1545	1400	770700	-9.4%	TATAMOTORS	700	8667450	5.9%	661	600	2851750	-9.2%
HDFCBANK	1800	3526050	5.2%	1710	1700	2343550	-0.6%	TATASTEEL	155	37433000	2.1%	152	140	14107500	-7.8%
HDFCLIFE	700	1471800	11.1%	630	550	955900	-12.7%	TCS	3800	1167950	8.6%	3498	3500	699825	0.1%
HEROMOTOCO	4000	547500	14.5%	3493	3100	365100	-11.3%	TECHM	1600	1017600	11.1%	1440	1400	543600	-2.8%
HINDALCO	700	3501400	2.8%	681	620	2895200	-8.9%	TITAN	3200	652750	6.1%	3017	3000	303625	-0.6%
HINDUNILVR	2300	942600	5.9%	2171	2100	510000	-3.3%	ULTRACEMCO	11000	172450	4.3%	10547	10400	80100	-1.4%
ICICIBANK	1300	2350600	2.4%	1269	1200	2871400	-5.4%	UPL	640	2162580	2.2%	626	610	1025735	-2.6%
INDUSINDBK	750	5545500	10.7%	677	600	1380000	-11.4%	WIPRO	300	9816000	15.5%	260	240	4017000	-7.6%

*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*

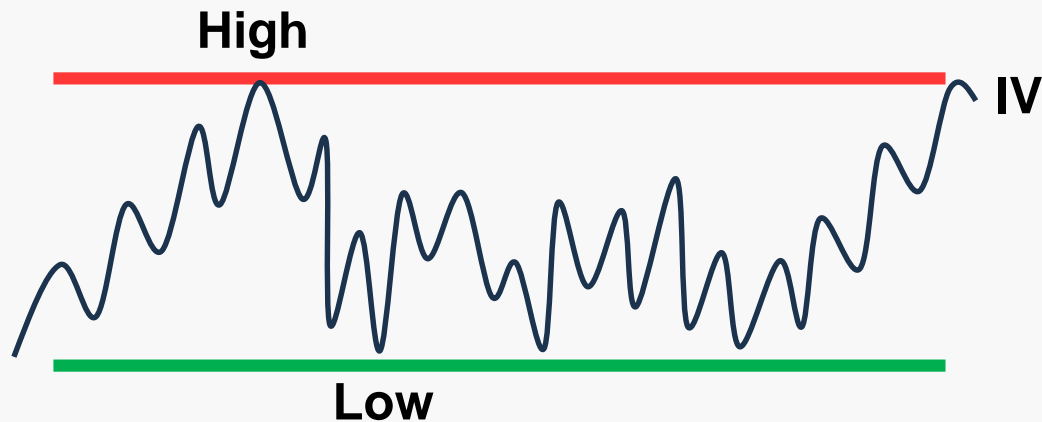
- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating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

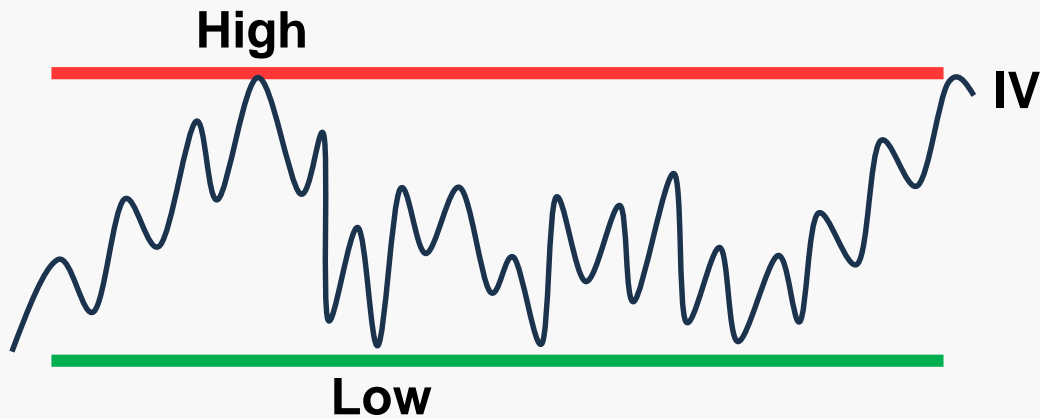


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



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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