



# Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	22,260	0.1% ▼
Open Interest (OI)	1,93,14,000	1.7% ▲
Change in OI (abs)	1,93,14,000	3,21,150 ▲
Premium / Discount (Abs)	141	15 ▼
<b>Inference</b>	<b>Short Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	48,396	0.5% ▼
Open interest (OI)	40,17,660	7.4% ▲
Change in OI (abs)	40,17,660	2,75,700 ▲
Premium / Discount (Abs)	282	2 ▼
<b>Inference</b>	<b>Short Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	13.76	0.2 ▼
Nifty ATM IV (%)	13.34	0.2 ▼
Bank Nifty ATM IV (%)	15.83	0.3 ▲
PCR (Nifty)	0.81	0.03 ▲
PCR (Bank Nifty)	0.91	0.04 ▼

The Long Ratio for the FII Index Futures **jump** to 15.9%, against 15.2% recorded in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ADANIENT	2,07,95,400	17.7%	2129.45	1.3%
HFCL	5,32,73,550	17.2%	80.11	0.6%
HUDCO	1,61,04,425	11.7%	166.62	0.3%
NTPC	9,13,65,000	9.6%	315.6	0.9%
ADANIENSOL	83,35,000	8.7%	658	0.5%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
IREDA	1,07,01,000	60.7%	141.07	-3.1%
PATANJALI	17,39,700	45.9%	1753.8	-0.8%
IIFL	32,14,700	24.3%	293.85	-3.2%
BANKBARODA	17,76,38,175	21.6%	197.02	-0.5%
MCX	19,06,400	21.4%	4741.35	-5.5%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DIXON	11,95,200	-7.1%	14086.1	2.3%
DELHIVERY	81,17,575	-4.9%	252.91	1.5%
DEEPAKNT	17,73,000	-3.5%	1857.05	0.3%
FEDERALBNK	8,51,00,000	-3.4%	179.75	0.7%
LTTS	6,87,900	-3.3%	4577.3	0.8%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
IGL	2,77,55,750	-5.0%	182.88	-3.7%
BANDHANBNK	9,99,23,600	-2.0%	140.82	-0.7%
INDUSINDBK	4,52,21,500	-1.8%	987.15	-0.7%
PETRONET	3,74,80,500	-1.6%	281.9	-0.8%
ADANIPTS	2,52,54,800	-1.1%	1058.85	-1.3%

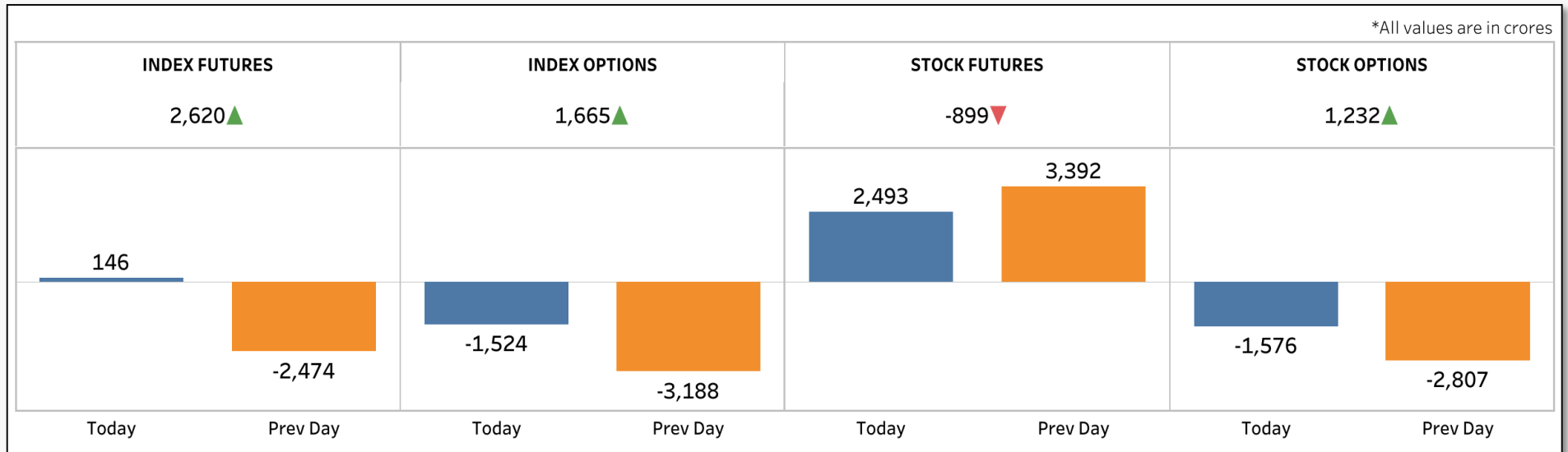
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Data by Participant

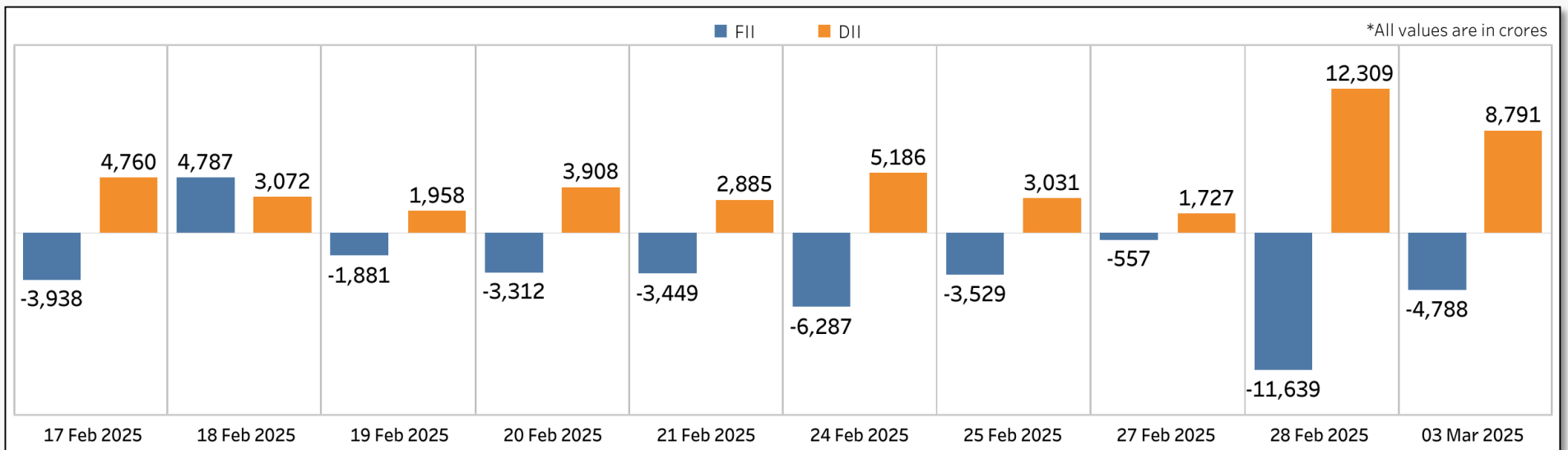
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
19,067 ▲	15,856 ▲	6,272 ▲	-10,765 ▼	3,400 ▲	-9,236 ▼	-3,092 ▼	41,096 ▲
	799		47,378	3,400	3,825	75	-33,705
			58,143	0	13,061	3,167	
-165		-11,036					
-19,232	-15,057	-17,308					-74,801
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-36,385	-165,073	163,078	1,473,840	3,470	40,152	17,978	-4,029,290
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
-70,138 ▼	-12,509 ▼	127,576 ▲	-36,451 ▼	47,671 ▲	5,889 ▲	-130,759 ▼	6,120 ▲
		82,714		46,086		59,005	
			28,009				
				-1,585	-1,154		
-49,321	-3,470	-44,862	-8,442	-7,043		-71,754	-5,231
							-11,351
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-134,505	136,979	-206,152	2,084,323	167,420	-12,058	25,094	471,127
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

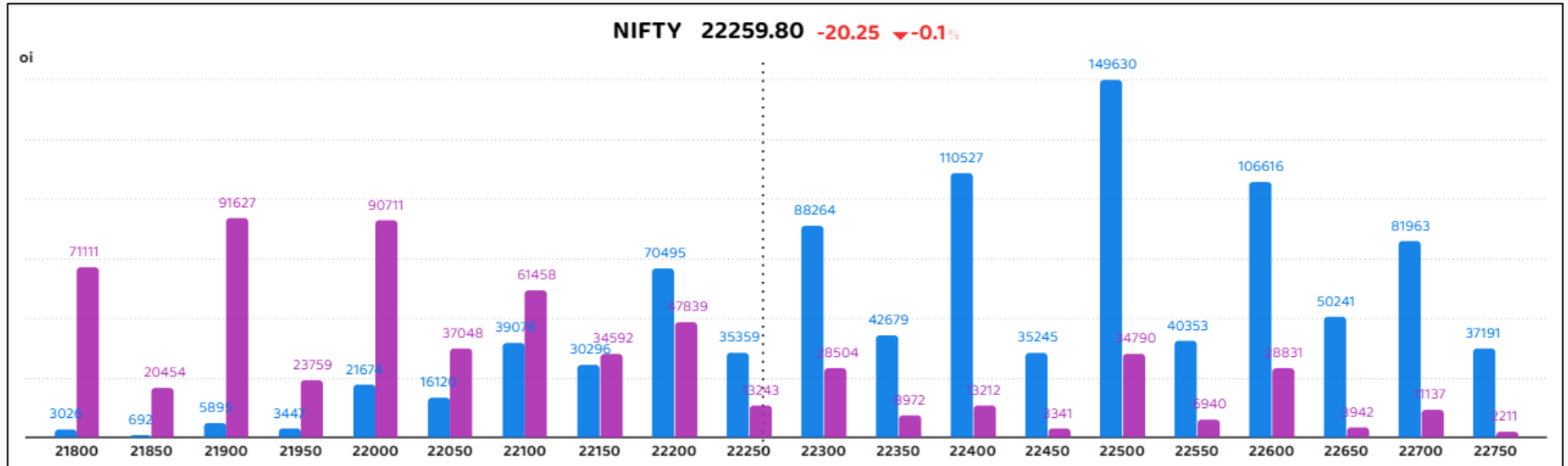


## DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 22500 Call and the 21900 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.

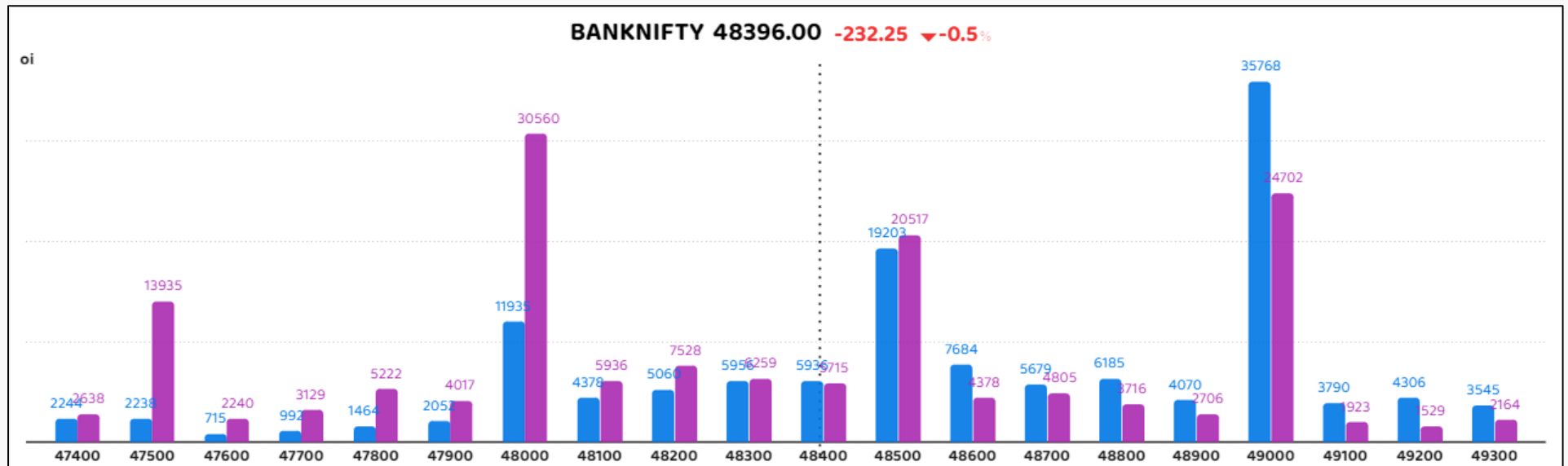
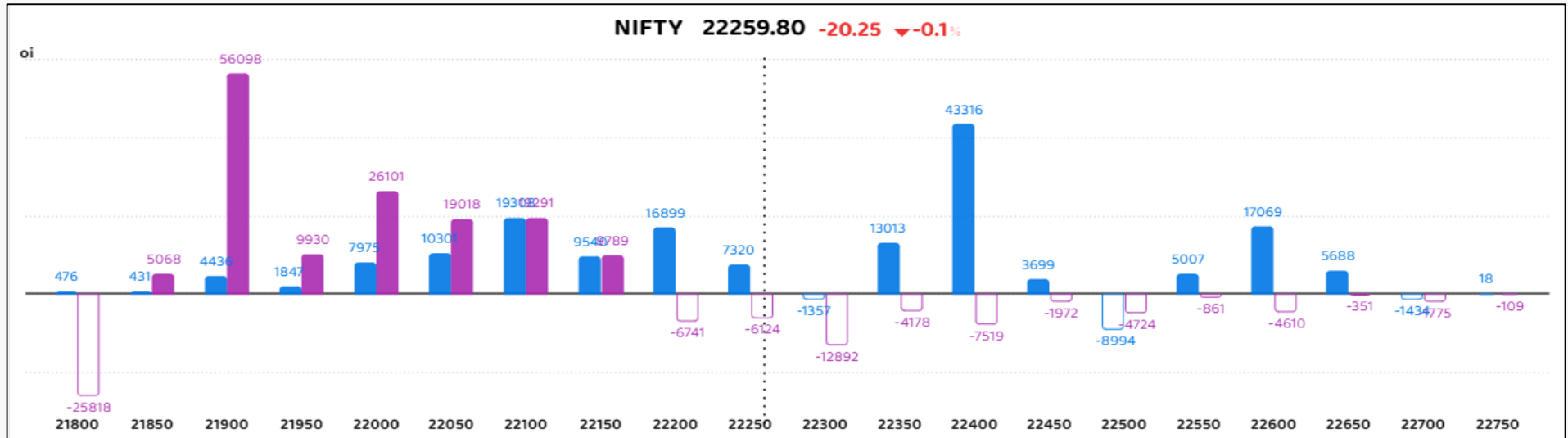


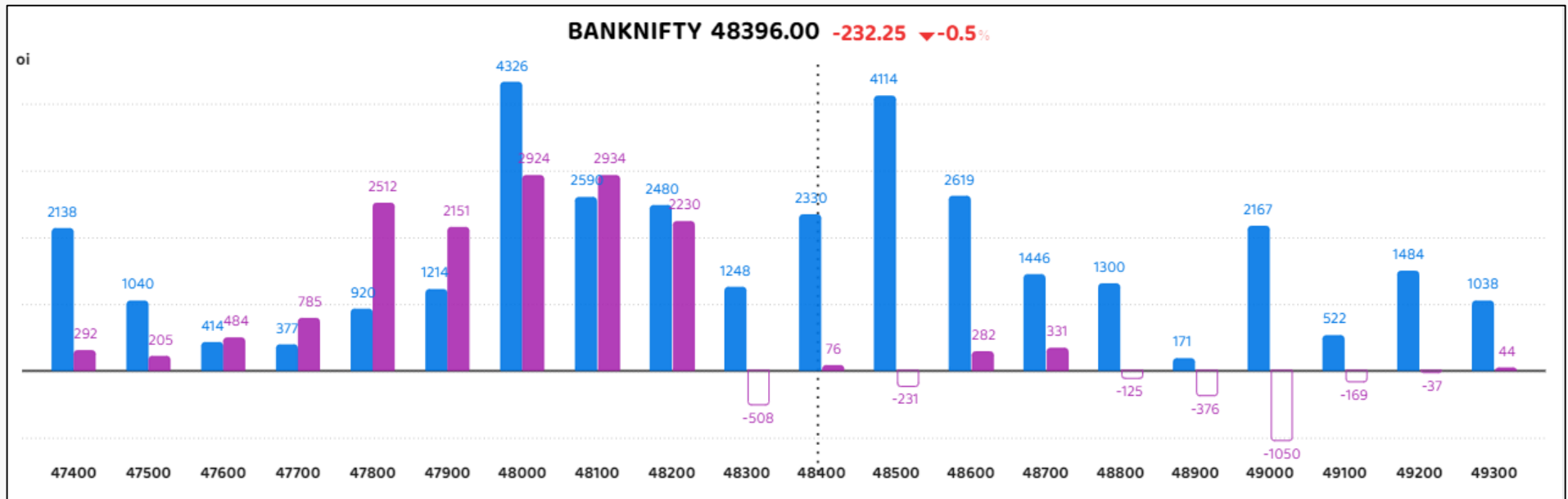
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 22400 Call and the 21900 Put



For the Bank Nifty, the biggest open interest changes were seen at the 48000 Call & the 48100 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
BANDHAN BANK LTD	140.23	-0.7	56.5	61.0	15.9	90.0
PERSISTENT SYS	5292.55	-0.2	42.7	45.0	25.0	88.4
PVR INOX LTD	895.2	-1.0	40.4	45.3	3.8	88.1
DIXON TECHNOLOGI	14051.75	0.8	44.2	51.5	1.8	85.3
MANAPPURAM FINAN	199.1	-0.9	54.4	64.2	2.7	84.0

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HDFC LIFE INSURA	618	1.6	23.5	80.6	19.6	6.3
CIPLA LTD	1407.55	0.0	22.9	61.3	18.0	11.4
FED BANK LTD	179.48	1.0	25.3	130.9	7.0	14.7
CONTAINER CORP	628.65	0.8	28.7	75.9	20.2	15.3
BANK OF BARODA	195.91	-0.6	31.1	66.9	24.3	15.9

## Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
CITY UNION BANK	149.35	1.0	46.8	52.1	21.1	99.6
BANDHAN BANK LTD	140.23	-0.7	56.5	61.0	15.9	99.4
PERSISTENT SYS	5292.55	-0.2	42.7	45.0	25.0	96.5
GRANULES INDIA	472.85	2.4	43.3	54.5	11.0	96.5
INDRAPRASTHA GAS	182.53	-3.7	47.6	59.1	20.3	96.1

## Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
BERGER PAINTS	488.65	0.0	19.0	43.1	12.0	3.3
ICICI BANK LTD	1206.2	0.2	17.4	46.1	9.3	4.5
STATE BANK IND	695.3	0.9	20.2	55.4	3.1	5.4
GUJARAT NARM VLY	470.55	0.4	27.1	53.0	4.8	13.3
TORRENT PHARMA	2959.25	0.4	22.5	45.4	12.0	13.9



### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
SIEMENS LTD	4836.7	4.6	24371	9239	2.6
MAHINDRA & MAHIN	2611.9	1.0	86627	45440	1.9
ULTRATECH CEMENT	10340.8	2.1	81840	43125	1.9
TVS MOTOR CO LTD	2323.85	4.4	21092	11115	1.9
SAMVARDHANA MOTH	119.41	0.7	8540	4591	1.9

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
TORRENT PHARMA	2959.25	0.4	941	1653	1.8
PIDILITE INDS	2681.3	0.9	1660	1940	1.2
DABUR INDIA LTD	491.75	-0.3	4704	5074	1.1
PIRAMAL ENTERPRI	891.9	2.2	3279	3512	1.1
MARICO LTD	594.15	-1.1	3281	3477	1.1

## Call Open Interest Relative to Record High

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

## Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
NO STOCK OPTION MET THE CONDITIONS MENTIONED IN THE FOOTNOTE					

### 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
NO STOCK OPTION MET THE CONDITIONS MENTIONED 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
POLYCAB INDIA LT	4870.85	3.3	26598	15853	1.7
PETRONET LNG LTD	280.25	-1.1	10270	8068	1.3
CITY UNION BANK	149.35	1.0	3773	3117	1.2
COROMANDEL INTER	1665.6	-0.1	3312	2910	1.1
HAVELLS INDIA	1429.3	0.5	7379	6619	1.1

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

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
POLYCAB INDIA LT	4870.85	3.3	15710	8849	1.8
HAVELLS INDIA	1429.3	0.5	5031	3977	1.3
TATA CONSULTANCY	3493.05	0.3	31222	27315	1.1
UNITED BREWERIES	1912.85	-1.7	2372	2144	1.1
RELIANCE INDS	1171.25	-2.4	82782	79367	1.0

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
POLYCAB INDIA LT	4870.85	3.3	115052	32232	3.6
COROMANDEL INTER	1665.6	-0.1	7341	2473	3.0
VOLTAS LTD	1366.15	3.5	82254	38133	2.2
BATA INDIA LTD	1237.8	1.4	12247	6137	2.0
TVS MOTOR CO LTD	2323.85	4.4	21092	11125	1.9

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
COROMANDEL INTER	1665.6	-0.1	6488	2025	3.2
POLYCAB INDIA LT	4870.85	3.3	64003	21365	3.0
GUJARAT GAS LTD	372	0.4	8815	3078	2.9
COAL INDIA LTD	360.35	-2.4	40151	17767	2.3
MANAPPURAM FINAN	199.1	-0.9	7351	3342	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	1172100	22.8%	2117	2600	2707800	22.8%	INFY	1900	1418000	11.2%	1709	1600	1008800	-6.4%
ADANIPTS	1100	855600	4.5%	1053	1200	580800	14.0%	ITC	410	3576000	3.2%	397	400	2705600	0.6%
APOLLOHOSP	6800	81750	10.2%	6171	5500	50750	-10.9%	JSWSTEEL	1000	698625	2.5%	976	960	441450	-1.6%
ASIANPAINT	2500	596600	15.4%	2166	2200	238400	1.6%	KOTAKBANK	2000	934800	4.5%	1915	1900	710800	-0.8%
AXISBANK	1050	2186250	4.2%	1007	1000	1517500	-0.7%	LT	3300	649500	3.2%	3197	3200	703650	0.1%
BAJAJ-AUTO	8500	98400	10.2%	7715	7800	51675	1.1%	LTIM	5000	114150	3.4%	4834	4000	57750	-17.3%
BAJAJFINSV	1900	918000	3.3%	1839	1800	383000	-2.1%	M&M	3000	1366575	14.9%	2612	2500	637525	-4.3%
BAJFINANCE	9000	437000	4.3%	8628	8000	320875	-7.3%	MARUTI	13000	150600	10.4%	11776	11000	108450	-6.6%
BHARTIARTL	1700	1267775	6.5%	1596	1600	794675	0.3%	NESTLEIND	2300	271600	5.2%	2186	1960	149200	-10.3%
BPCL	250	2730600	3.1%	242	250	1443600	3.1%	NTPC	320	3390000	1.8%	314	380	2655000	20.9%
BRITANNIA	4700	67600	2.2%	4597	4600	58800	0.1%	ONGC	250	2874025	11.0%	225	220	1615075	-2.3%
CIPLA	1440	380575	2.3%	1408	1240	318175	-11.9%	POWERGRID	260	1513800	3.0%	253	250	1949400	-1.0%
COALINDIA	450	2535750	24.9%	360	450	2693250	24.9%	RELIANCE	1300	6923500	11.0%	1171	1200	3736000	2.5%
DIVISLAB	6000	127700	8.3%	5540	4700	65100	-15.2%	SBLIFE	1500	352500	6.5%	1409	1400	261375	-0.6%
DRREDDY	1200	637500	7.2%	1120	1100	369375	-1.8%	SBIN	800	7140750	15.1%	695	800	4506000	15.1%
EICHERMOT	5100	185500	3.9%	4907	4800	220325	-2.2%	SUNPHARMA	1640	455350	3.5%	1585	1600	785400	0.9%
GRASIM	2400	240500	0.9%	2377	2300	162000	-3.3%	TATACONSUM	1100	436392	15.3%	954	880	318288	-7.7%
HCLTECH	1800	390950	14.5%	1572	1400	459200	-11.0%	TATAMOTORS	700	6205650	12.7%	621	600	2335850	-3.4%
HDFCBANK	1800	2388100	5.8%	1702	1700	2891350	-0.1%	TATASTEEL	150	13491500	8.2%	139	135	8002500	-2.6%
HDFCLIFE	620	1417900	0.3%	618	520	478500	-15.9%	TCS	4000	1255975	14.5%	3493	3500	584675	0.2%
HEROMOTOCO	3800	313500	4.7%	3631	3600	125550	-0.8%	TECHM	1800	1222200	20.6%	1493	1500	449400	0.5%
HINDALCO	650	2543800	2.1%	637	620	1394400	-2.6%	TITAN	3200	338100	3.8%	3082	3200	254800	3.8%
HINDUNILVR	2300	742800	5.7%	2177	2200	465000	1.1%	ULTRACEMCO	11000	165400	6.4%	10341	10200	74050	-1.4%
ICICIBANK	1300	1893500	7.8%	1206	1200	2643200	-0.5%	UPL	640	1846865	3.8%	617	600	673435	-2.7%
INDUSINDBK	1100	1952000	11.8%	984	1000	1067500	1.6%	WIPRO	300	4218000	5.8%	284	280	2667000	-1.3%

*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*

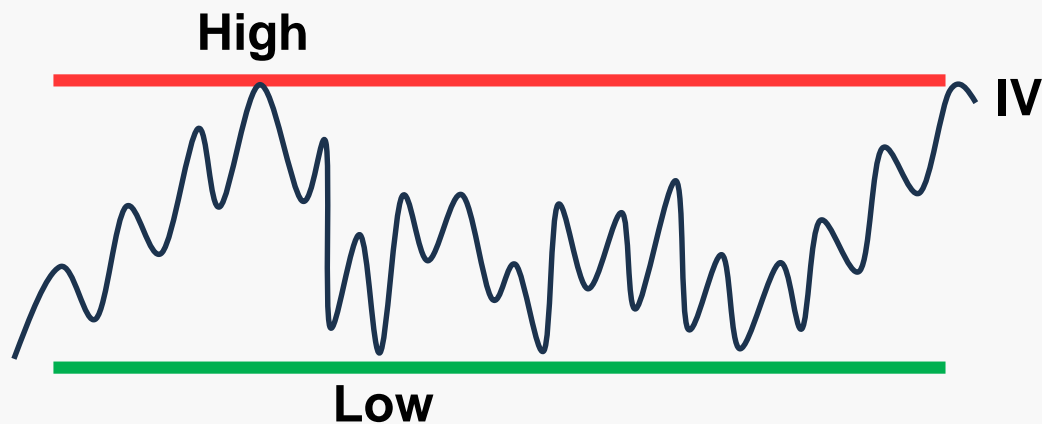
- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating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

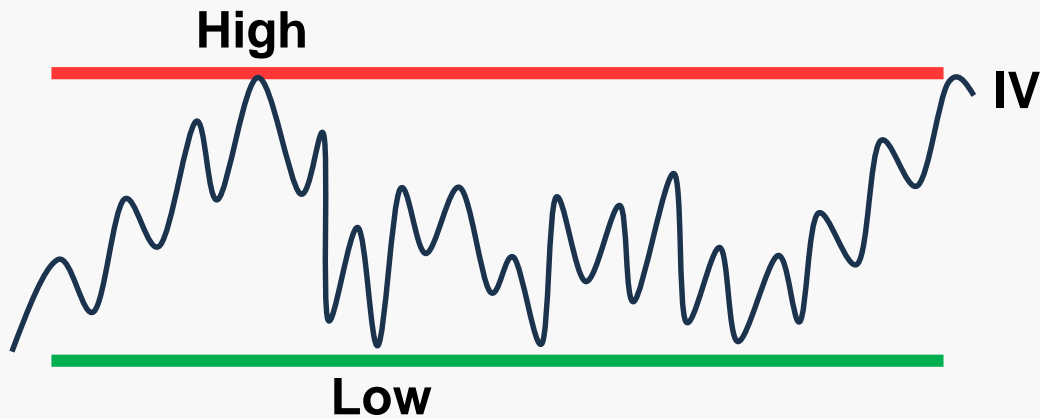


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



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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