



# Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	22,613	0.9% ▼
Open Interest (OI)	2,06,30,175	4.5% ▲
Change in OI (abs)	2,06,30,175	8,81,100 ▲
Premium / Discount (Abs)	59	33 ▲
<b>Inference</b>	<b>Short Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	48,794	0.5% ▼
Open interest (OI)	42,45,000	1.0% ▼
Change in OI (abs)	42,45,000	43,260 ▼
Premium / Discount (Abs)	142	92 ▲
<b>Inference</b>	<b>Long Unwinding</b>	

## Volatility Insights

	Value	Change
India VIX Index	14.44	0.1 ▼
Nifty ATM IV (%)	13.21	1.0 ▲
Bank Nifty ATM IV (%)	15.38	0.4 ▲
PCR (Nifty)	0.71	0.11 ▼
PCR (Bank Nifty)	0.76	0.08 ▲

The Long Ratio for the FII Index Futures **jump** to 15.3%, against 15% recorded in the previous session.

## Single Stock Futures Movers

### Long Buildup (Open Interest Higher + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
JKCEMENT	5,45,625	7.9%	4607.7	0.3%
EICHERMOT	39,76,350	7.4%	5018.3	1.3%
PETRONET	3,64,03,500	6.8%	304.35	1.0%
DEEPAKNTNTR	26,94,000	6.1%	1951.4	1.0%
CGPOWER	90,05,950	5.6%	602.75	2.0%

### Short Buildup (Open Interest Higher + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
DALBHARAT	31,31,425	11.2%	1743.85	-0.2%
LTIM	20,38,500	10.7%	5055.95	-4.8%
MFSL	37,69,600	9.8%	1039.75	-1.5%
APOLLOHOSP	25,42,375	6.5%	6259.85	-1.0%
MAXHEALTH	81,67,425	6.3%	990.35	-2.1%

### Short Covering (Open Interest Lower + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
GUJGASLTD	37,50,000	-19.2%	406.5	0.3%
ABBOTINDIA	21,480	-18.4%	29550.7	2.2%
METROPOLIS	4,85,200	-17.7%	1682.55	1.5%
INDIAMART	4,62,300	-15.8%	2005.25	0.3%
DRREDDY	1,32,53,750	-12.3%	1166.4	1.2%

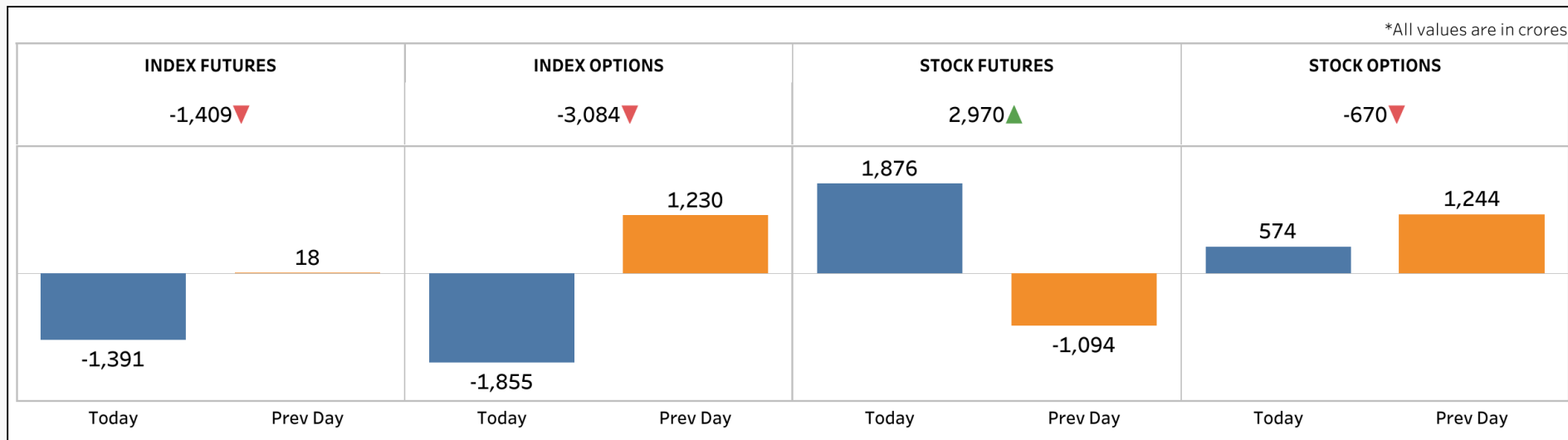
### Long Unwinding (Open Interest Lower + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
NCC	1,49,88,100	-16.5%	185.85	-1.0%
CUB	1,59,00,000	-15.6%	147.84	-2.2%
ATGL	46,51,550	-15.4%	574	-1.0%
NAVINFUOR	4,37,500	-14.6%	3918.05	-2.8%
COROMANDEL	13,41,550	-10.9%	1669.6	-2.2%

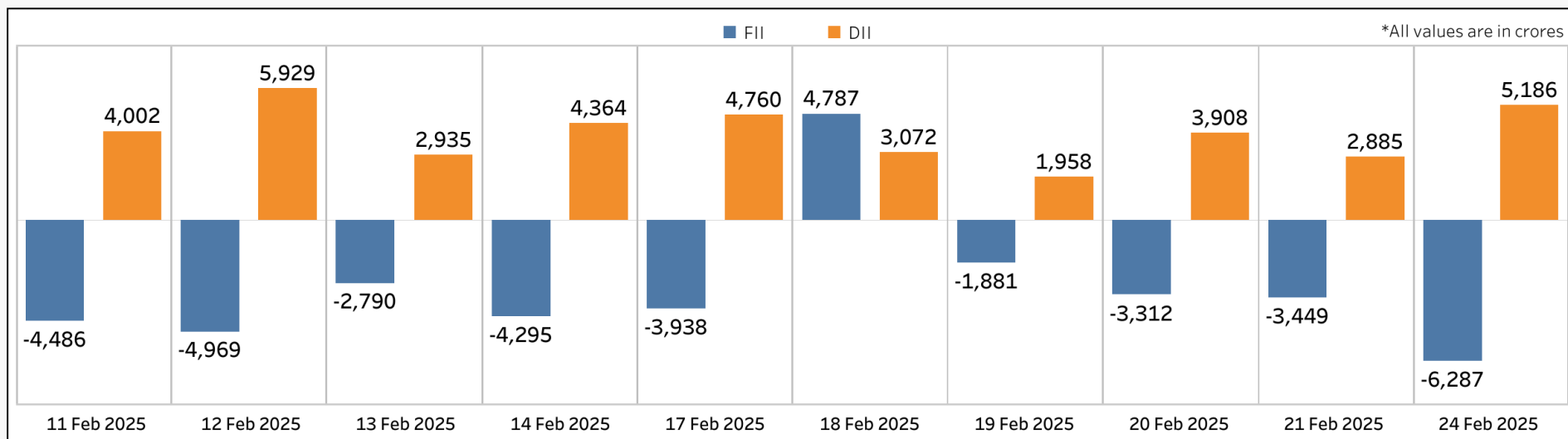
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix



## Daily Net Open Interest Change

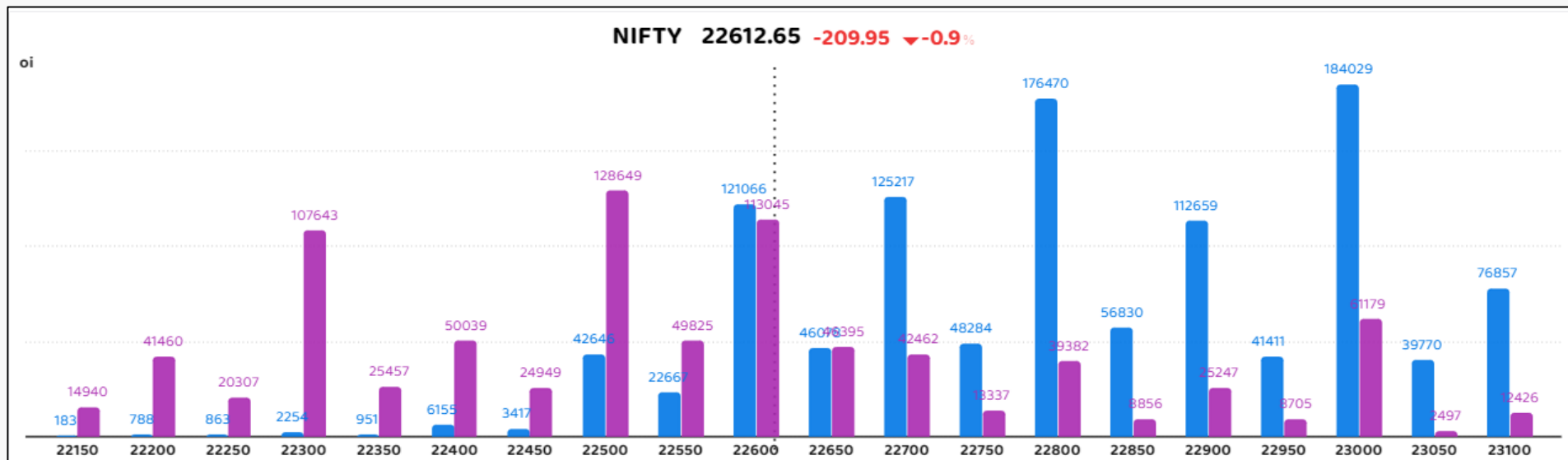


## DII and FII Daily Cash Market Flows



## 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 48500 Put saw the most amount of open interest.

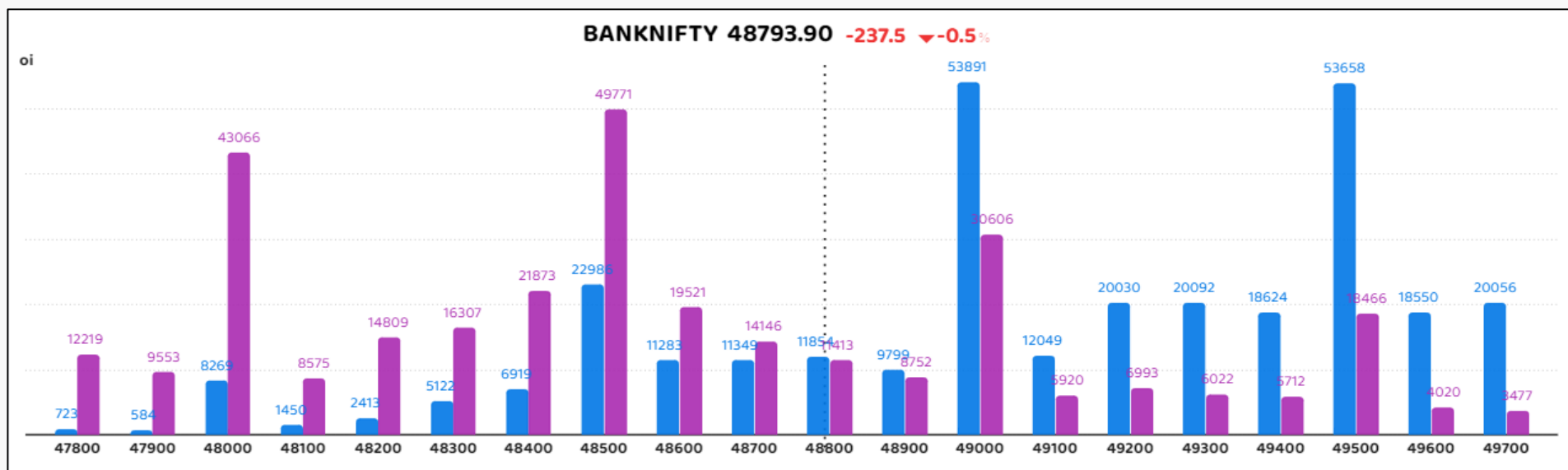
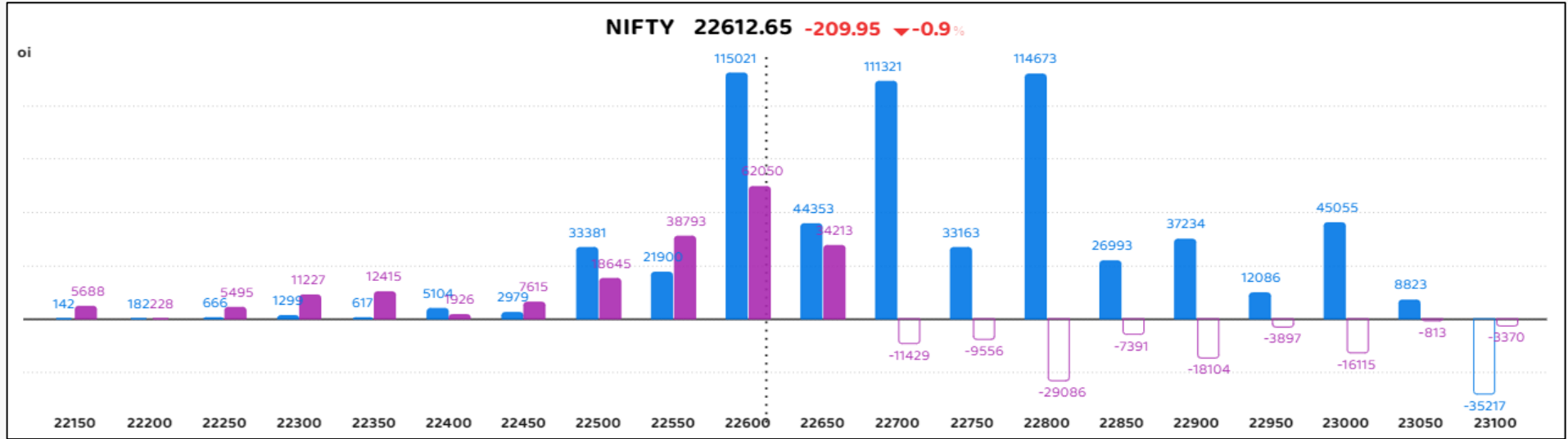


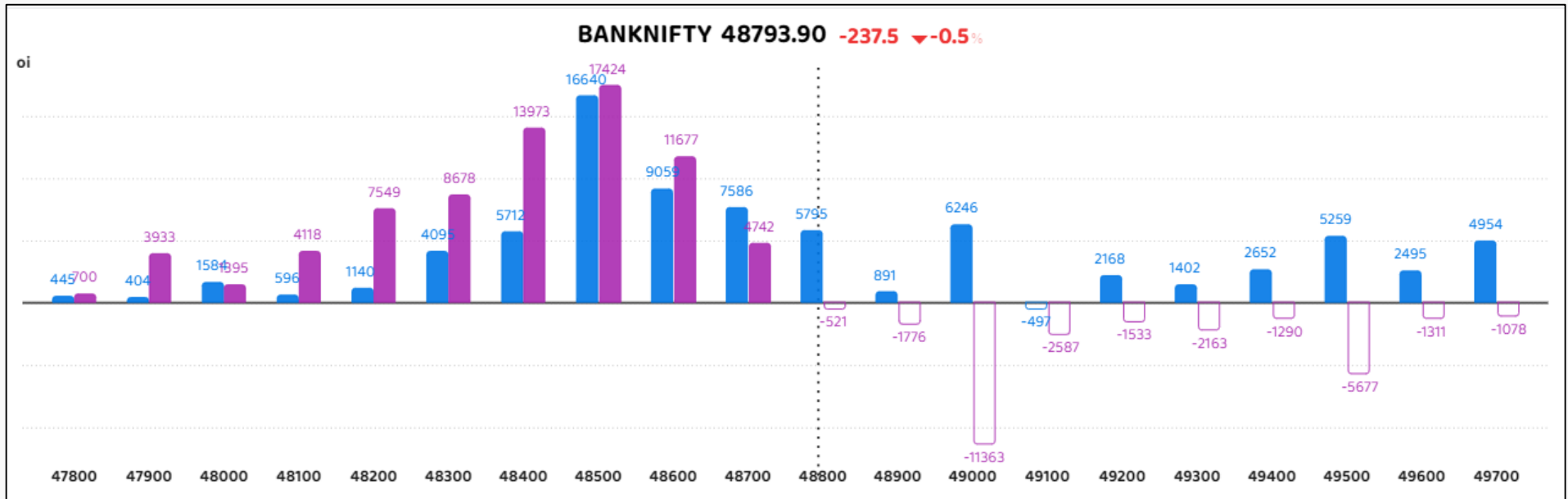
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 22600 Call and the 22800 Put



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

**Stocks with High IVR:**

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ABBOTT INDIA LTD	29813.5	3.0	40.2	40.2	6.5	100.0
LAURUS LABS LTD	536.8	2.9	42.1	44.8	16.1	90.6
OBEROI REALTY	1583.6	0.1	43.5	47.5	20.3	85.3
ATUL LTD	5456.5	-0.7	37.2	41.5	13.6	84.7
DIXON TECHNOLOGI	14043.4	0.5	43.7	51.5	1.8	84.2

**Stocks with Low IVR:**

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HDFC LIFE INSURA	617.0	-0.9	24.8	80.6	19.6	8.5
BANK OF BARODA	208.6	-0.8	29.1	66.9	24.3	11.4
CIPLA LTD	1476.8	0.1	23.6	61.3	18.0	13.0
INDIAN OIL CORP	120.2	-0.9	27.5	51.7	23.7	13.7
LARSEN & TOUBRO	3257.7	-1.7	20.9	40.9	17.4	14.9

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
BOOT IS	29813.5	3.0	40.2	40.2	6.5	100.0
OBER IS	1583.6	0.1	43.5	47.5	20.3	98.1
ATLP IS	5456.5	-0.7	37.2	41.5	13.6	98.1
LAURUS IS	536.8	2.9	42.1	44.8	16.1	96.7
IGL IS	197.7	-1.9	44.5	59.1	20.3	93.7

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
JKCE IS	4589.8	0.2	17.0	42.0	5.9	3.0
MGFL IS	204.0	1.3	25.4	64.2	2.7	4.6
CANF IS	605.2	1.1	27.0	46.5	11.1	11.5
SUNTV IS	579.7	0.7	27.4	49.4	10.0	14.4
GNFC IS	543.8	0.0	28.2	53.0	4.8	16.5



**Stocks With High Call Volume To Put Volume**

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
DR REDDY'S LABS	1164.6	1.1	38420	16550	2.3
NESTLE INDIA LTD	2220.4	0.2	22470	10427	2.2
ITC LTD	401.9	0.2	33294	15560	2.1
SBI LIFE INSURAN	1486.5	-0.6	13908	6518	2.1
EICHER MOTORS	5010.8	1.0	49126	23280	2.1

**Stocks With High Put Volume To Call Volume**

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
GRASIM INDS LTD	2393.7	-1.5	10692	15710	1.5
HCL TECH LTD	1644.1	-3.3	37468	50542	1.3
LTIMINDTREE LTD	5047.5	-4.7	32278	35242	1.1
TECH MAHINDRA LT	1613.7	-2.2	13982	15174	1.1
INFOSYS LTD	1764.1	-2.8	78298	84617	1.1

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
PERSISTENT SYS	5639.8	-1.2	21468	21468	100.0
LAURUS LABS LTD	536.75	2.9	14870	15338	97.0
AMBUJA CEMENTS	470.4	-2.4	21542	23282	92.5
GLENMARK PHARMA	1325.15	1.9	7965	8612	92.5
GODREJ PROPERTIE	2033.35	2.1	24634	27021	91.2

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
GPL IS	2033.4	2.1	9375	9375	100.0
MAHINDRA & MAHIN	2709.2	1.5	43628	44522	98.0
HINDUSTAN AERONA	3350.4	-0.5	35136	36416	96.5
LARSEN & TOUBRO	3257.7	-1.7	41029	42532	96.5
STEEL AUTHORITY	108.2	-4.0	12196	12685	96.2

### Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
None of the stock options matched the criteria mentioned in the foot note					

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
None of the stock options matched the criteria mentioned in the foot note					

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

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
LTIMINDTREE LTD	5047.45	-4.7	12569	5691	2.2
MAHINDRA & MAHIN	2709.2	1.5	84992	41526	2
LUPIN LTD	1902.8	-0.1	17489	9709	1.8
L&T TECHNOLOGY S	4885.6	-4.6	7637	4275	1.8
M&M FIN SERVICES	271.35	0.3	7468	4347	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	2709.2	1.5	43628	24022	1.8
LTIMINDTREE LTD	5047.45	-4.7	5113	2870	1.8
ABB INDIA LTD	5389.95	1.9	13179	7973	1.7
NTPC LTD	320.1	-1.9	20876	13915	1.5
TATA CONSULTANCY	3675.6	-2.9	34984	24779	1.4

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
UNITDSPR IS	1342.8	2.8	24534	7463	3.3
BATA IS	1336.3	2.9	18573	6299	2.9
LTTS IS	4885.6	-4.6	30959	10796	2.9
COFORGE IS	7628.4	1.8	126480	44771	2.8
LTIMINDTREE LTD	5047.45	-4.7	32278	12730	2.5

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
L&T TECHNOLOGY S	4885.6	-4.6	50709	8122	6.2
LTIMINDTREE LTD	5047.45	-4.7	35242	8326	4.2
ATLP IS	5456.5	-0.7	8695	2118	4.1
HCL TECH LTD	1644.05	-3.3	50542	16089	3.1
PSYS IS	5639.8	-1.2	66926	21804	3.1

## 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	2800	1149600	32.4%	2115	2800	862800	32.4%	INFY	1900	3340800	7.7%	1764	1700	1049600	-3.6%
ADANIPTS	1200	1382800	12.1%	1070	1000	700000	-6.6%	ITC	450	7288000	12.0%	402	400	3467200	-0.5%
APOLLOHOSP	7000	230375	12.0%	6251	6000	67750	-4.0%	JSWSTEEL	1080	878175	11.7%	967	800	415800	-17.3%
ASIANPAINT	2400	1078400	6.8%	2246	2100	284000	-6.5%	KOTAKBANK	2000	2218800	1.7%	1966	1940	924000	-1.3%
AXISBANK	1050	6973750	4.0%	1010	1000	1995625	-1.0%	LT	3600	1691850	10.5%	3258	3250	559200	-0.2%
BAJAJ-AUTO	9000	144825	6.5%	8447	8600	62700	1.8%	LTIM	5800	230550	14.9%	5047	5000	109650	-0.9%
BAJAJFINSV	1860	1686000	0.1%	1858	1800	820000	-3.1%	M&M	3000	1081675	10.7%	2709	2600	515025	-4.0%
BAJFINANCE	8500	640250	1.7%	8355	7500	355125	-10.2%	MARUTI	13200	534050	6.9%	12345	12000	321000	-2.8%
BHARTIARTL	1720	4680175	7.4%	1601	1600	834100	-0.1%	NESTLEIND	2400	512000	8.1%	2220	2000	197400	-9.9%
BPCL	270	9327600	7.6%	251	250	1962000	-0.4%	NTPC	330	8625000	3.1%	320	390	3642000	21.8%
BRITANNIA	5000	326000	4.1%	4804	4700	104200	-2.2%	ONGC	270	10065825	15.2%	234	240	2417800	2.4%
CIPLA	1500	1612650	1.6%	1477	1440	410150	-2.5%	POWERGRID	300	6469200	15.8%	259	260	2138400	0.3%
COALINDIA	400	4101300	9.6%	365	450	2392950	23.4%	RELIANCE	1300	8923000	7.0%	1215	1200	3201500	-1.2%
DIVISLAB	6200	374800	8.7%	5703	5400	156000	-5.3%	SBLIFE	1500	784875	0.9%	1487	1460	282000	-1.8%
DRREDDY	1240	1358750	6.5%	1165	1100	501875	-5.5%	SBIN	800	13506750	11.7%	716	720	4322250	0.5%
EICHERMOT	5500	315700	9.8%	5011	4700	190925	-6.2%	SUNPHARMA	1800	1699600	9.8%	1640	1660	415100	1.3%
GRASIM	2500	245000	4.4%	2394	2400	336000	0.3%	TATACONSUM	1060	417696	5.7%	1002	900	557688	-10.2%
HCLTECH	1760	1138550	7.1%	1644	1540	763700	-6.3%	TATAMOTORS	700	7416750	4.8%	668	700	2562450	4.8%
HDFCBANK	1760	9178950	4.9%	1677	1700	1956350	1.4%	TATASTEEL	150	33473000	9.0%	138	140	14311000	1.7%
HDFCLIFE	640	2998600	3.7%	617	540	799700	-12.5%	TCS	3800	868875	3.4%	3676	3600	476350	-2.1%
HEROMOTOCO	4200	808200	8.1%	3885	4100	221100	5.5%	TECHM	1700	864600	5.3%	1614	1500	406800	-7.0%
HINDALCO	610	2406600	-5.0%	642	600	1682800	-6.5%	TITAN	3500	880775	10.3%	3173	3200	354375	0.9%
HINDUNILVR	2500	1055400	11.5%	2241	2200	439500	-1.8%	ULTRACEMCO	12000	230950	8.7%	11043	10000	55250	-9.4%
ICICIBANK	1300	5260500	6.7%	1218	1200	1307600	-1.5%	UPL	660	1150395	2.3%	645	600	1403780	-7.0%
INDUSINDBK	1100	4386500	6.9%	1029	1000	901000	-2.8%	WIPRO	320	3396000	8.5%	295	300	3348000	1.7%

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

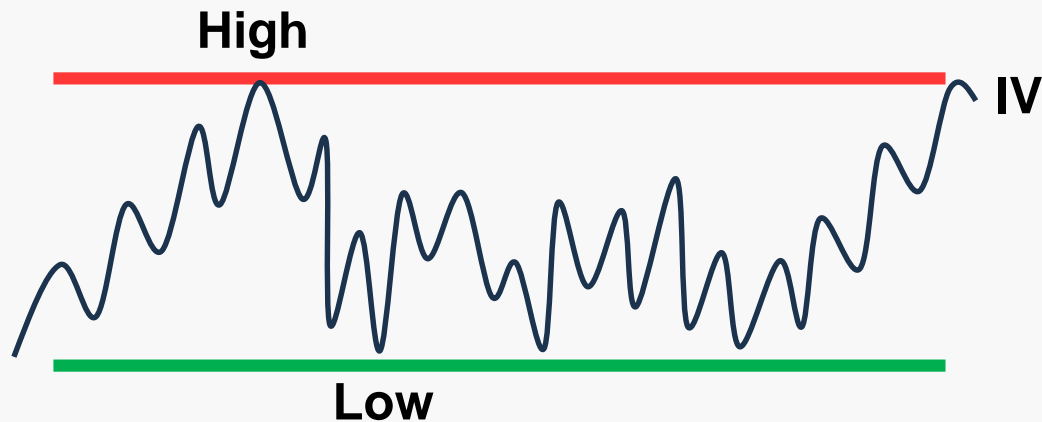
- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating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

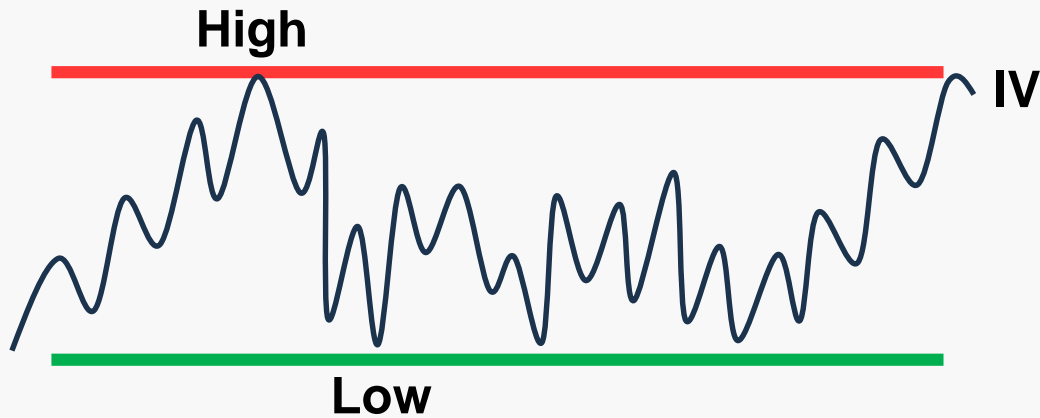


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



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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