



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	23,443	0.5% ▼
Open Interest (OI)	1,80,69,150	1.4% ▼
Change in OI (abs)	1,80,69,150	2,48,850 ▼
Premium / Discount (Abs)	82	8 ▲
<b>Inference</b>	<b>Long Unwinding</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	49,505	0.5% ▼
Open interest (OI)	34,28,310	1.6% ▼
Change in OI (abs)	34,28,310	57,120 ▼
Premium / Discount (Abs)	295	33 ▲
<b>Inference</b>	<b>Short Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	14.35	0.3 ▲
Nifty ATM IV (%)	13.53	0.7 ▲
Bank Nifty ATM IV (%)	17.39	0.3 ▲
PCR (Nifty)	0.87	0.00 ▲
PCR (Bank Nifty)	0.79	0.00 ▲

The Long Ratio for the FII Index Futures **dropped** to 10.5%, against 12.1% recorded in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PHOENIXLTD	2,92,600	154.9%	1831.1	3.7%
BATAINDIA	28,15,875	10.8%	1418.75	2.7%
DEEPAKNTR	17,71,800	8.8%	2335	0.1%
LTTS	7,36,000	7.1%	5521.1	1.4%
DELHIVERY	87,39,775	5.8%	323.1	0.6%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
HUDCO	2,53,36,400	27.9%	198.39	-9.2%
NBCC	96,97,600	16.3%	90.71	-5.2%
NCC	66,61,575	16.2%	217.8	-6.5%
HINDPETRO	4,31,12,250	14.1%	326.25	-5.1%
JSWENERGY	1,89,06,750	14.0%	448.8	-5.3%

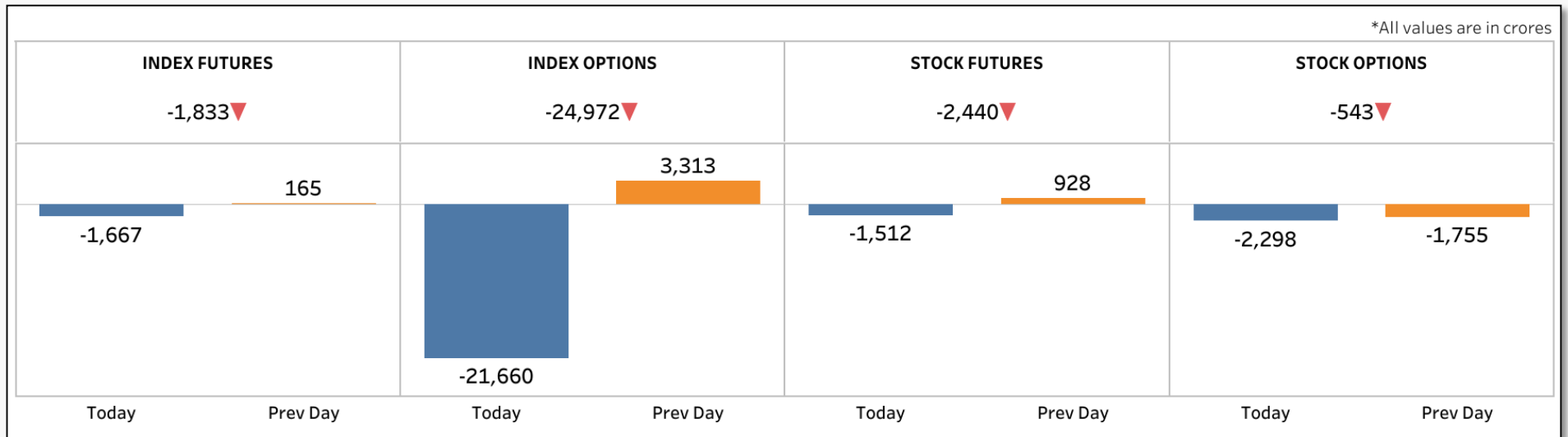
Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NAVINFLUOR	11,63,925	-6.5%	4192.2	1.1%
PIIND	18,05,625	-6.0%	3629.85	4.0%
EICHERMOT	32,53,600	-5.3%	5506.5	1.7%
OFSS	7,79,350	-4.2%	9218.3	3.5%
INFY	3,61,81,200	-3.6%	1873.2	0.5%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
JUBLFOOD	1,61,57,500	-3.0%	731.05	-1.6%
CROMPTON	2,51,71,200	-2.9%	369.6	-0.3%
ITC	6,86,49,600	-2.6%	451	-1.6%
NATIONALUM	4,14,26,250	-2.3%	188.08	-3.7%
NAUKRI	16,29,675	-2.2%	7750.5	-0.9%

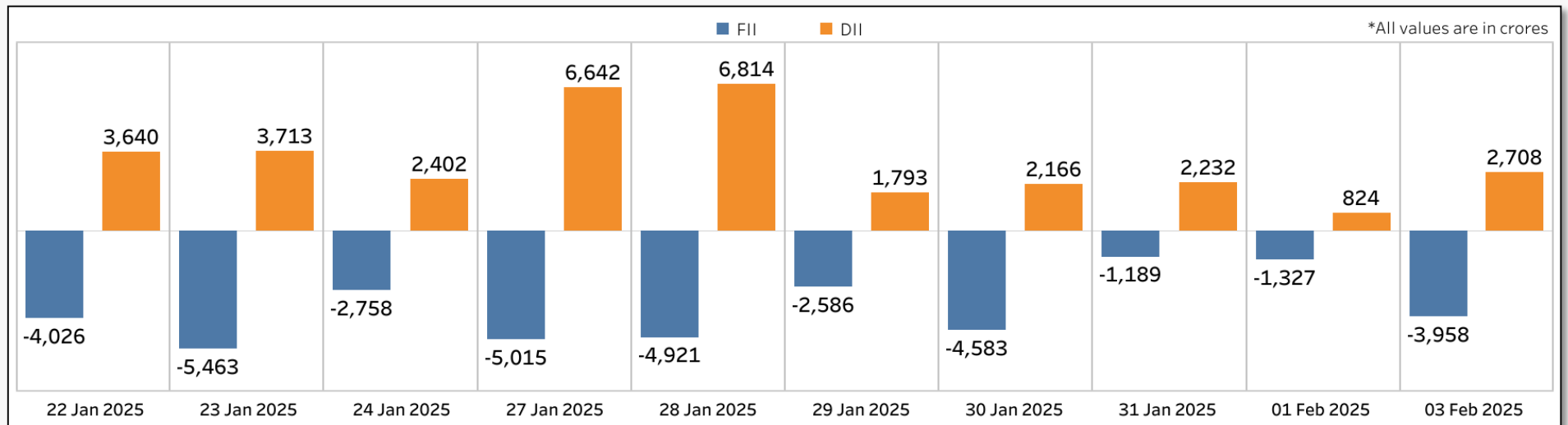
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix



## Daily Net Open Interest Change

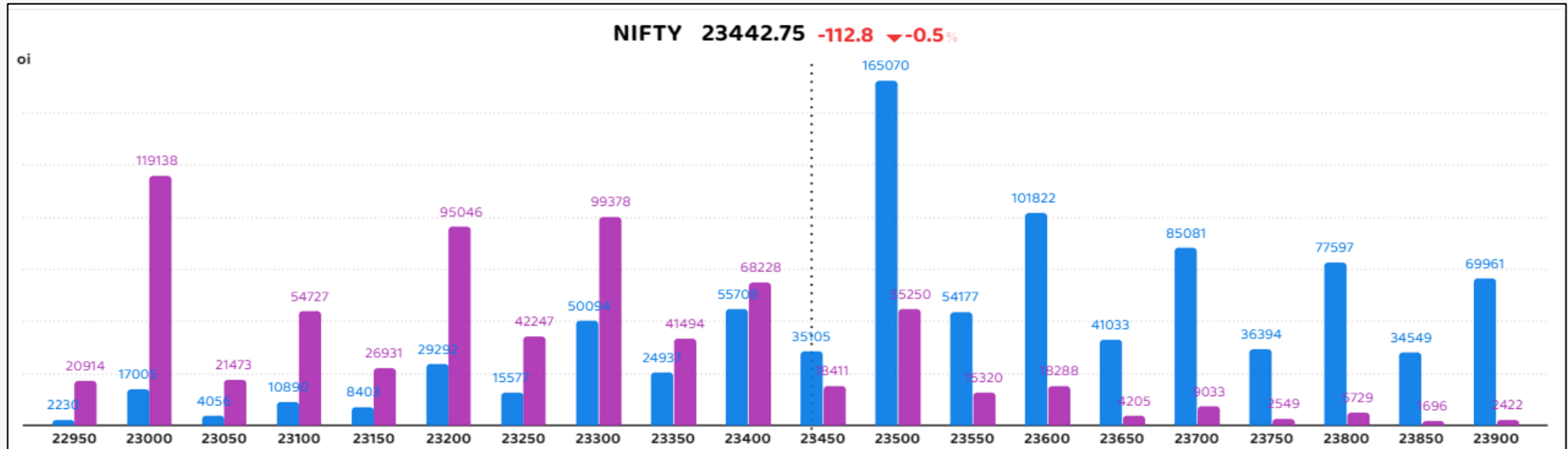


## DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 23500 Call and the 23000 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.

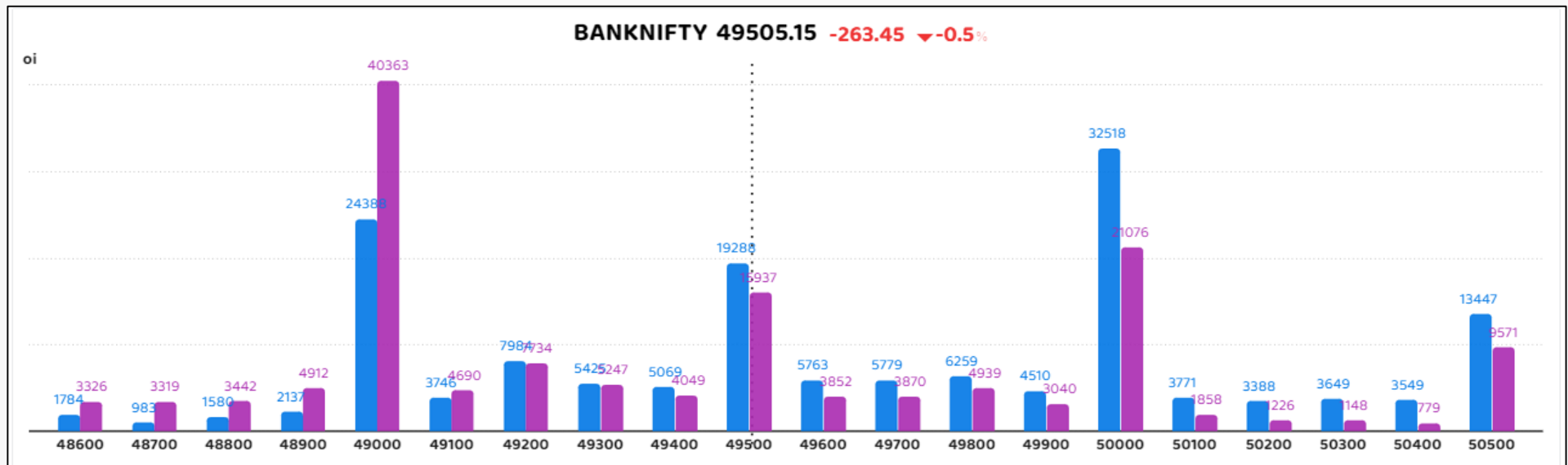
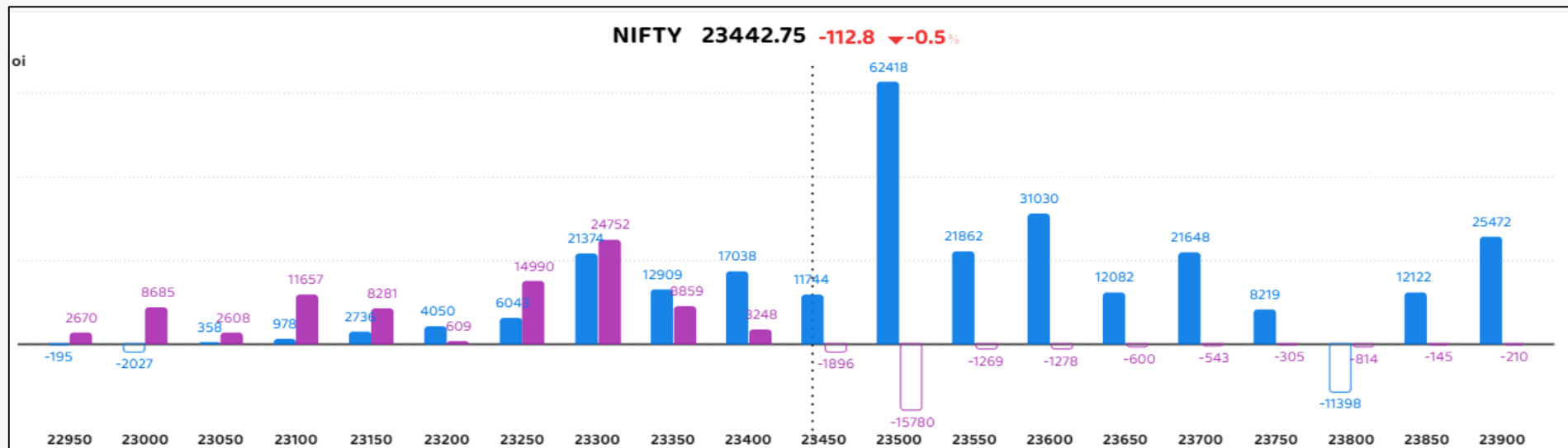


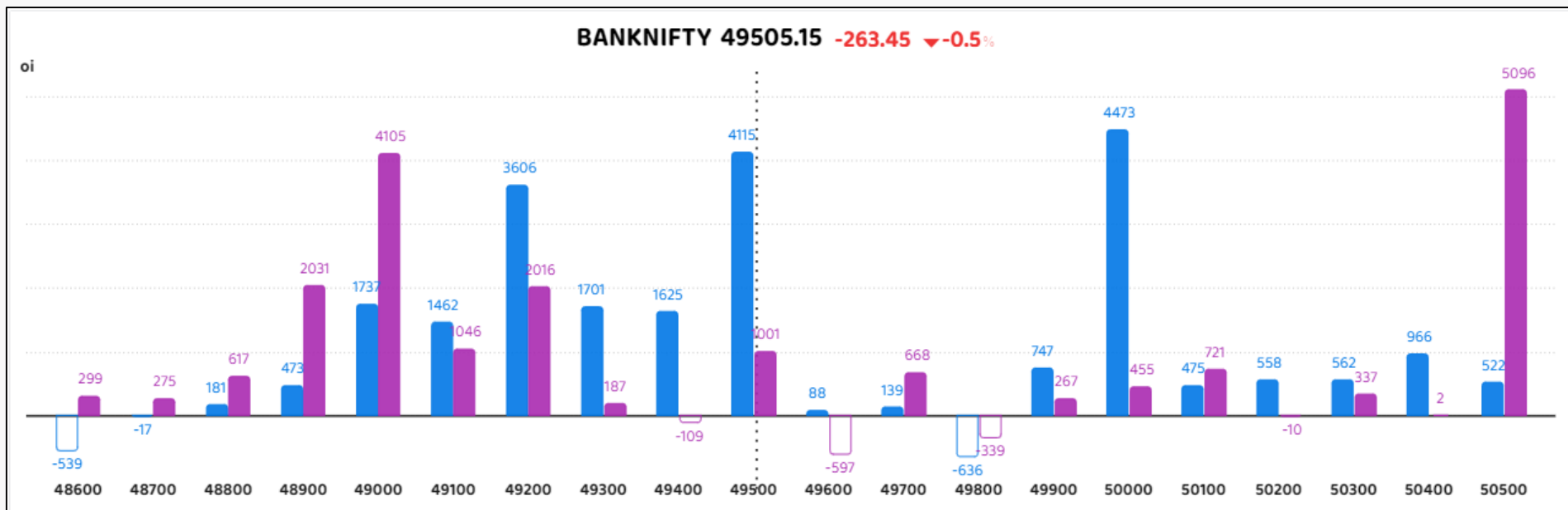
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23500 Call and the 23300 Put



For the Bank Nifty, the biggest open interest changes were seen at the 50000 Call & the 50500 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
SIEMENS LTD	5225.9	-9.1	47.6	47.6	20.7	100.0
PVR INOX LTD	1112	-1.0	43.1	45.3	14.8	92.7
ABBOTT INDIA LTD	25977.6	0.3	32.7	36.5	6.5	87.4
BRITANNIA INDS	5105.55	-1.8	30.0	32.5	15.1	85.7
BATA INDIA LTD	1415.3	2.8	35.1	39.2	13.4	83.8

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HDFC LIFE INSURA	621.4	-0.7	23.7	80.6	19.6	6.7
CIPLA LTD	1420.55	-1.3	22.5	61.3	18.0	10.4
MCX INDIA LTD	5681.15	-1.6	35.5	71.9	29.9	13.3
ADANI PORTS AND	1084.85	0.1	34.0	97.8	23.2	14.5
FED BANK LTD	180.56	-1.9	27.8	130.9	7.0	16.8

**Stocks With High IVP:**

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
SIEMENS LTD	5225.9	-9.1	47.6	47.6	20.7	100.0
ABB INDIA LTD	5197.35	-5.5	44.8	56.4	23.7	99.0
ABBOTT INDIA LTD	25977.6	0.3	32.7	36.5	6.5	99.0
ASIAN PAINTS LTD	2292.25	-2.5	29.4	34.6	15.5	98.7
PVR INOX LTD	1112	-1.0	43.1	45.3	14.8	98.2

**Stocks With Low IVP:**

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MARUTI SUZUKI IN	13139.95	1.7	20.3	33.7	0.4	14.2
ICICI PRUDENTIAL	604.65	-0.2	24.6	41.4	15.3	14.9
MCX INDIA LTD	5681.15	-1.6	35.5	71.9	29.9	20.5
BANDHAN BANK LTD	147.56	-2.5	32.4	54.2	15.9	20.8
RELIANCE INDS	1245.9	-1.5	19.3	33.8	2.1	22.4



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

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PIDILITE INDS	2960.75	0.5	2366	891	2.7
NESTLE INDIA LTD	2317.1	-0.4	38155	15765	2.4
BAJAJ FINSERV LT	1794.85	2.3	52053	21670	2.4
LARSEN & TOUBRO	3289.2	-4.6	163467	72727	2.3
ADANI PORTS AND	1084.85	0.1	24432	11006	2.2

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

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
TATA COMMUNICATI	1560.5	-3.5	6489	13771	2.1
DALMIA BHARAT LT	1810.45	-0.9	1759	2339	1.3
SUN TV NETWORK	617.45	-1.2	1142	1286	1.1
ABB INDIA LTD	5197.35	-5.5	25845	25812	1.0
TATA CONSUMER PR	1036.3	-3.1	20738	20556	1.0

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
AMBUJA CEMENTS	495.15	-1.3	21414	23282	92.0
LARSEN & TOUBRO	3289.2	-4.6	76115	85207	89.3
HINDUSTAN AERONA	3528.55	-6.5	54913	68088	80.7

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
LARSEN & TOUBRO	3289.2	-4.6	34732	35113	98.9
MARUTI SUZUKI IN	13139.95	1.7	44690	53706	83.2
BANK OF BARODA	207.99	-1.4	16503	20549	80.3

### Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
YESTERDAY, NO STOCK OPTION MET THE CRITERIA FROM THE FOOTNOTE MENTIONED BELOW					

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
ADITYA BIRLA CAP	172.46	-2.4	17625	17625	100.0

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
DIVI LABS LTD	5884.1	4.7	118505	26688	4.4
VOLTAS LTD	1401.3	5.8	107285	27463	3.9
BANDHAN BANK LTD	147.56	-2.5	17084	4830	3.5
PI INDUSTRIES	3619.45	4.0	30542	8798	3.5
L&T FINANCE LTD	149.56	2.5	12202	3738	3.3

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
DIVI LABS LTD	5884.1	4.7	60717	17317	3.5
BANDHAN BANK LTD	147.56	-2.5	10698	3205	3.3
ADITYA BIRLA CAP	172.46	-2.4	17625	5545	3.2
SIEMENS LTD	5225.9	-9.1	44840	15523	2.9
VOLTAS LTD	1401.3	5.8	45866	17379	2.6

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

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
LARSEN & TOUBRO	3289.2	-4.6	76115	40071	1.9
AMBUJA CEMENTS	495.15	-1.3	21414	12457	1.7
VOLTAS LTD	1401.3	5.8	20217	13800	1.5
JINDAL STEEL & P	807.7	4.0	13130	8965	1.5
LIC HOUSING FIN	557.6	-4.6	8979	7054	1.3

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

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
UPL LTD	630.25	4.3	8094	5793	1.4
VOLTAS LTD	1401.3	5.8	11885	8534	1.4
DIVI LABS LTD	5884.1	4.7	9804	7041	1.4
BAJAJ FINANCE LT	8425.8	5.3	34266	26459	1.3
LARSEN & TOUBRO	3289.2	-4.6	34732	27097	1.3

## 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	1266600	23.8%	2262	2800	2619000	23.8%	INFY	1900	1401600	2.0%	1863	1800	1005600	-3.4%
ADANIPTS	1200	2118000	10.6%	1085	1100	824800	1.4%	ITC	460	6212800	1.2%	454	400	3414400	-12.0%
APOLLOHOSP	7800	87125	14.7%	6799	6000	51375	-11.7%	JSWSTEEL	950	566325	1.7%	934	800	541350	-14.3%
ASIANPAINT	2400	634800	4.7%	2292	2200	370000	-4.0%	KOTAKBANK	1900	1190400	0.8%	1885	1800	810000	-4.5%
AXISBANK	1100	3592500	11.2%	989	980	1567500	-1.0%	LT	3500	1513350	6.4%	3289	3300	774600	0.3%
BAJAJ-AUTO	10000	162525	12.0%	8927	8000	70500	-10.4%	LTIM	7000	84600	20.9%	5791	5700	48750	-1.6%
BAJAJFINSV	1860	1075500	3.6%	1795	1700	580000	-5.3%	M&M	3300	371700	4.0%	3173	3000	316925	-5.5%
BAJFINANCE	8300	379125	-1.5%	8426	8000	443750	-5.1%	MARUTI	13200	408550	0.5%	13140	12000	353850	-8.7%
BHARTIARTL	1700	1623550	2.9%	1652	1600	1019350	-3.2%	NESTLEIND	2400	763400	3.6%	2317	2100	334800	-9.4%
BPCL	270	9518400	8.2%	250	250	1870200	0.2%	NTPC	340	10426500	9.2%	311	390	3772500	25.3%
BRITANNIA	5000	168200	-2.1%	5106	5000	135200	-2.1%	ONGC	270	8983975	8.4%	249	250	1980825	0.4%
CIPLA	1500	932425	5.6%	1421	1440	281775	1.4%	POWERGRID	300	5569200	5.7%	284	280	1558800	-1.3%
COALINDIA	410	5083050	9.6%	374	450	3095400	20.3%	RELIANCE	1300	9121000	4.3%	1246	1200	3666500	-3.7%
DIVISLAB	6000	173600	2.0%	5884	5400	150400	-8.2%	SBLIFE	1600	887625	9.6%	1460	1460	285000	0.0%
DRREDDY	1240	1205000	3.0%	1204	1200	417500	-0.3%	SBIN	800	5625750	5.1%	761	800	3292500	5.1%
EICHERMOT	5700	172725	3.9%	5485	4500	100275	-18.0%	SUNPHARMA	1800	1627500	3.4%	1741	1700	644350	-2.3%
GRASIM	2600	247500	5.1%	2474	2400	161000	-3.0%	TATACONSUM	1060	560424	2.3%	1036	1000	463296	-3.5%
HCLTECH	1760	740600	4.0%	1692	1540	569100	-9.0%	TATAMOTORS	800	8874250	16.4%	687	700	3570600	1.8%
HDFCBANK	1800	3809300	7.3%	1678	1700	1614250	1.3%	TATASTEEL	150	18716500	13.8%	132	160	11341000	21.4%
HDFCLIFE	700	2747800	12.6%	621	600	795300	-3.4%	TCS	4200	663425	3.2%	4069	4000	397775	-1.7%
HEROMOTOCO	4400	375000	2.6%	4287	4000	137250	-6.7%	TECHM	1800	433200	8.8%	1655	1400	339000	-15.4%
HINDALCO	600	1608600	4.5%	574	600	1719200	4.5%	TITAN	3900	471800	8.9%	3580	3200	502775	-10.6%
HINDUNILVR	2600	1161600	6.5%	2442	2400	373200	-1.7%	ULTRACEMCO	12000	368050	7.4%	11175	11000	81100	-1.6%
ICICIBANK	1300	2261000	3.8%	1253	1200	2214100	-4.2%	UPL	580	1222210	-8.0%	630	550	1551475	-12.7%
INDUSINDBK	1000	2377500	-1.3%	1013	1000	1392500	-1.3%	WIPRO	359	2967000	14.5%	314	300	3123000	-4.3%

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

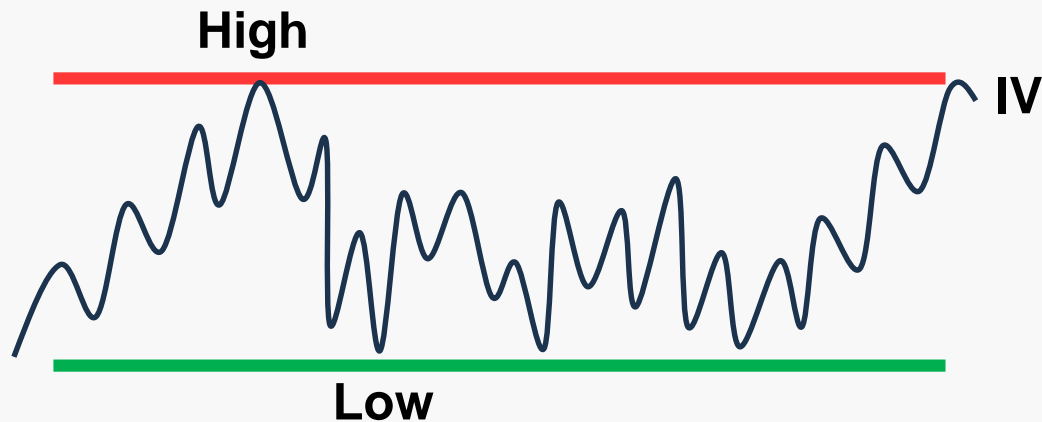
- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating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

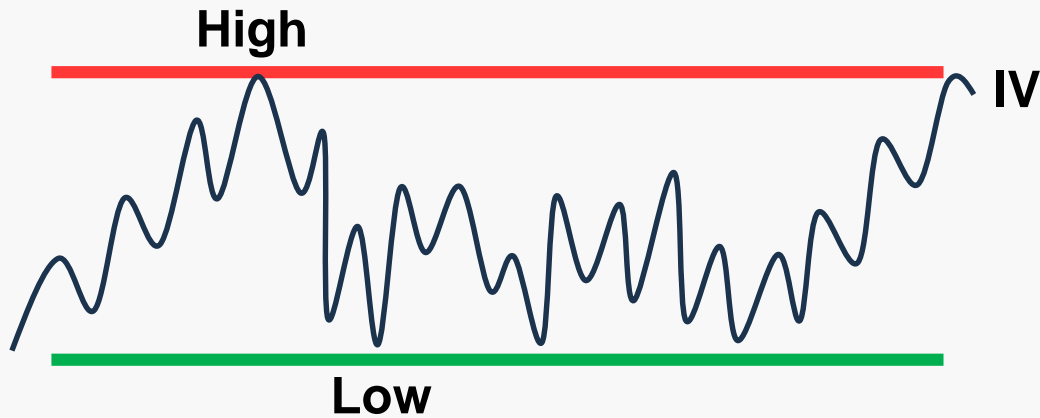


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



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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