



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	22,582	0.1% ▼
Open Interest (OI)	2,05,86,075	0.2% ▼
Change in OI (abs)	2,05,86,075	44,100 ▼
Premium / Discount (Abs)	35	25 ▼
Inference	Long Unwinding	

Bank Nifty Futures

	Value	Change
Most recent settlement	48,723	0.1% ▼
Open interest (OI)	44,39,340	4.6% ▲
Change in OI (abs)	44,39,340	1,94,340 ▲
Premium / Discount (Abs)	115	27 ▼
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	13.71	0.7 ▼
Nifty ATM IV (%)	8.39	4.8 ▼
Bank Nifty ATM IV (%)	10.30	5.1 ▼
PCR (Nifty)	0.77	0.06 ▲
PCR (Bank Nifty)	0.81	0.05 ▲

The Long Ratio for the FII Index Futures **jump** to 17.05%, against 15.3% recorded in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ATGL	50,75,475	9.1%	580.15	1.1%
MARICO	1,74,61,200	8.0%	622.3	0.1%
BAJAJFINSV	1,66,83,500	6.4%	1874.35	0.7%
ASHOKLEY	5,24,25,000	5.9%	225.64	1.3%
HAVELLS	70,71,000	4.6%	1546.3	1.4%

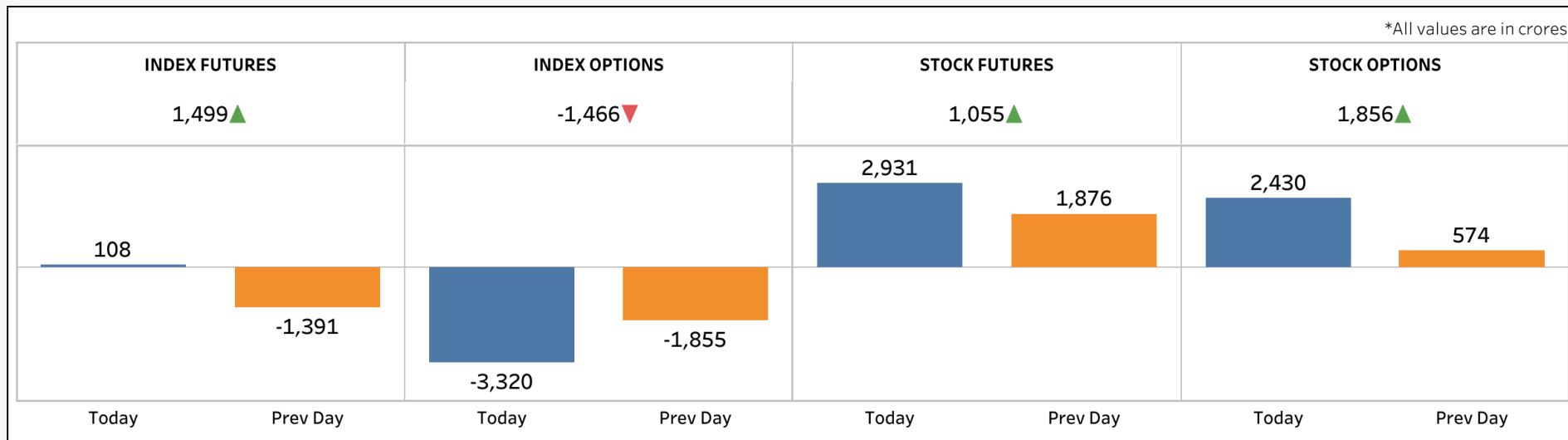
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
POONAWALLA	1,42,86,850	14.4%	274.6	-2.7%
MFSL	42,15,200	11.8%	1018.7	-2.0%
CDSL	1,14,73,350	11.1%	1204.3	-0.8%
IRFC	8,81,74,350	8.9%	123.32	-0.2%
LTIM	22,03,800	8.1%	4960.65	-1.9%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
COROMANDEL	6,97,200	-48.0%	1690.6	1.3%
CUB	90,35,000	-43.2%	148.49	0.4%
ABBOTINDIA	16,680	-22.4%	30039.6	1.7%
KEI	7,89,150	-18.1%	3790.5	1.4%
CHAMBLFERT	70,79,400	-17.4%	563.4	4.8%

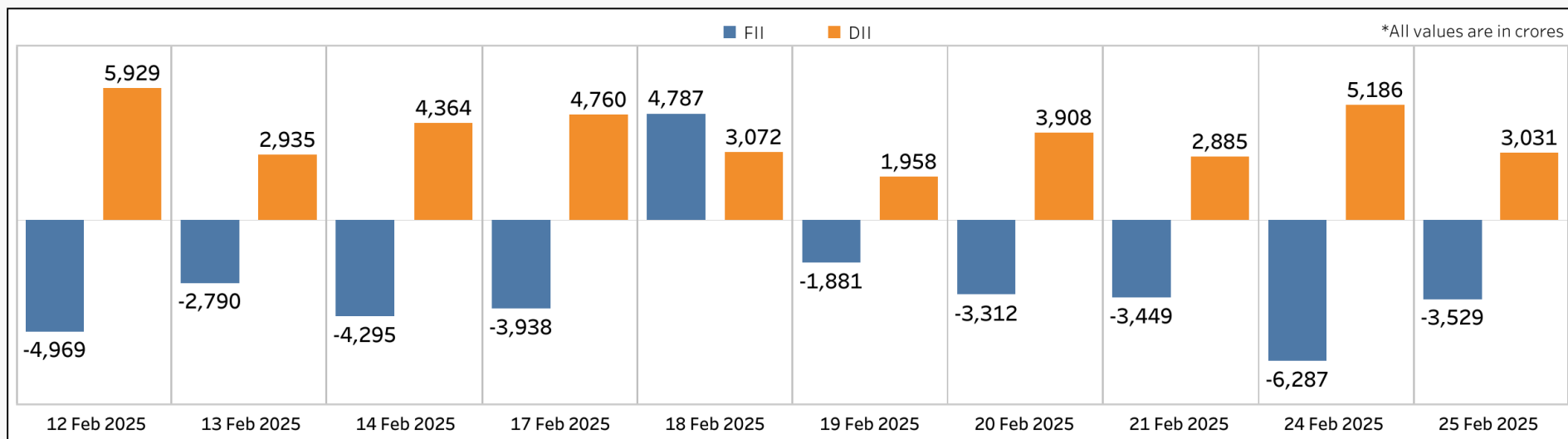
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
LALPATHLAB	2,86,500	-50.1%	2406	-7.0%
CANFINHOME	20,03,625	-43.1%	576.9	-4.6%
NAVINFUOR	2,66,175	-39.2%	3809.45	-2.8%
GUJGASLTD	26,60,000	-29.1%	395.8	-2.6%
METROPOLIS	3,50,000	-27.9%	1662.95	-1.2%

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

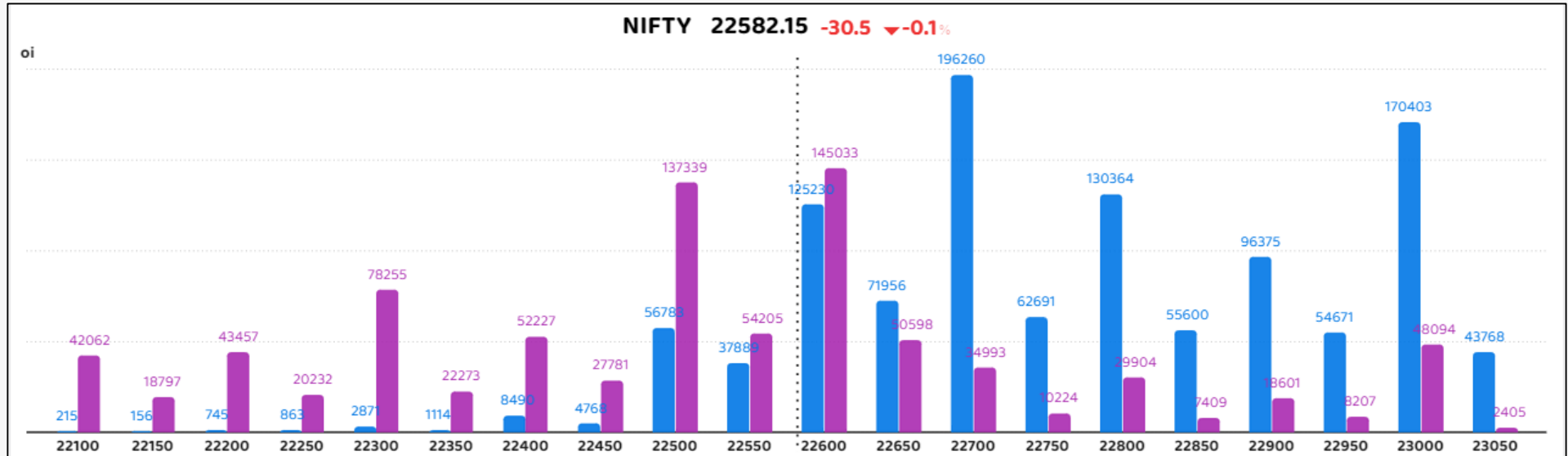


DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 22700 Call and the 22600 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.

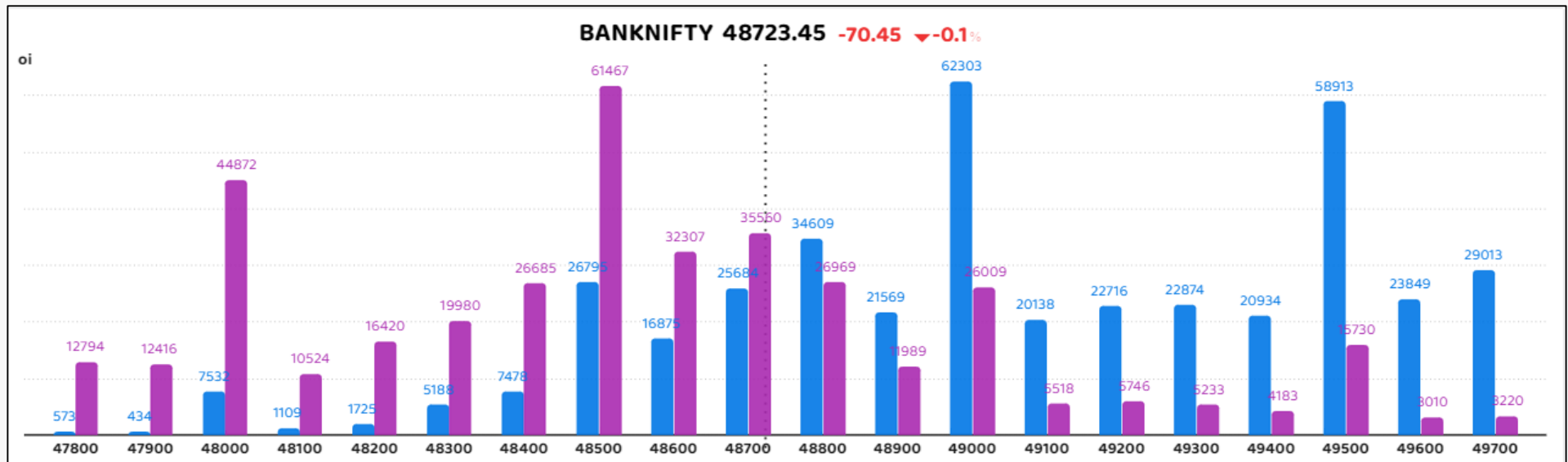
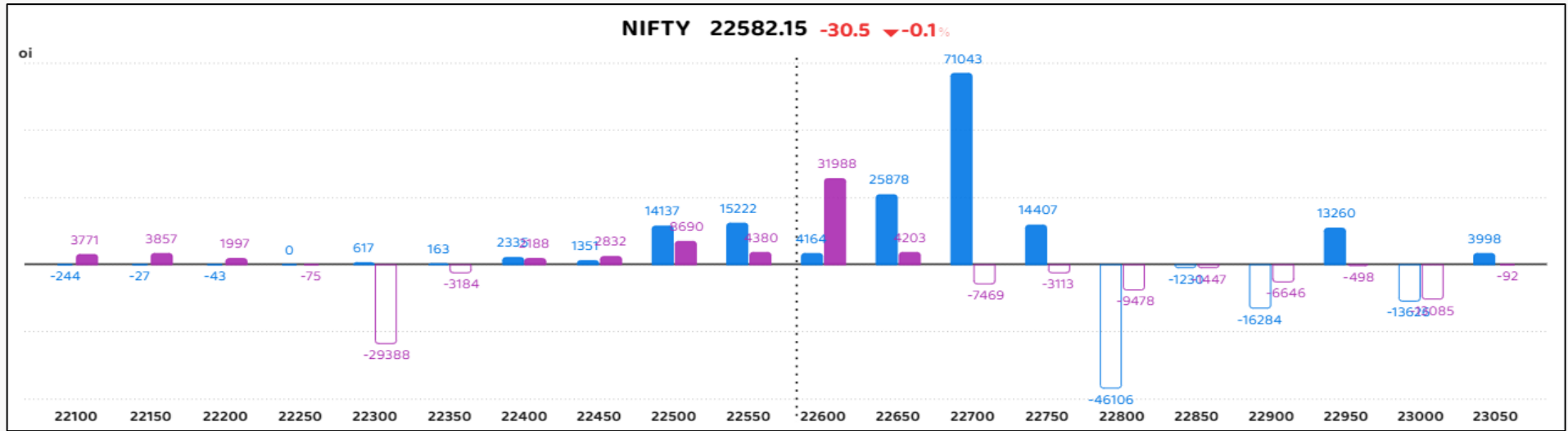


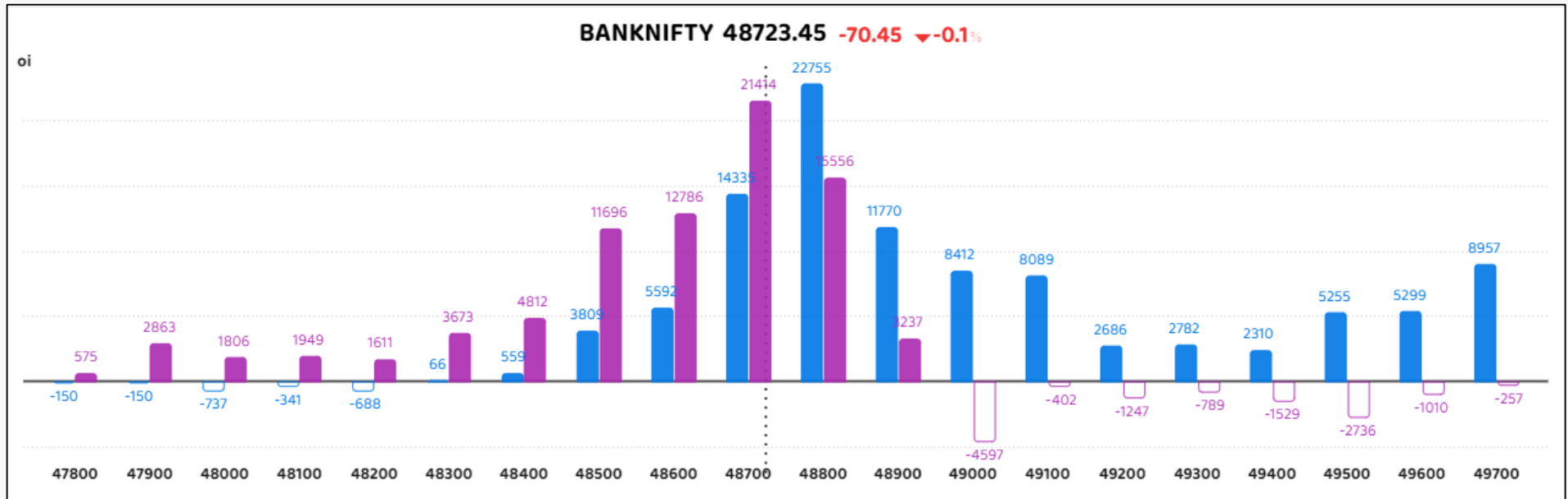
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 22700 Call and the 22600 Put



For the Bank Nifty, the biggest open interest changes were seen at the 48800 Call & the 48700 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
DR LAL PATHLABS	2410.1	-6.9	46.1	46.8	20.4	97.4
LAURUS LABS LTD	550.15	2.5	41.4	44.8	16.1	88.1
PVR INOX LTD	984.4	-1.5	40.4	45.3	3.8	88.1
DIXON TECHNOLOGI	14151.6	0.8	42.5	51.5	1.8	81.8
OBEROI REALTY	1543.35	-2.5	42.4	47.5	20.3	81.2

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
IPCA LABS LTD	1417.4	-1.5	15.3	49.3	14.4	2.6
HDFC ASSET MANAG	3765.25	-0.5	23.7	53.2	22.0	5.4
HDFC LIFE INSURA	622.15	0.8	24.4	80.6	19.6	7.8
CIPLA LTD	1463.35	-0.9	23.0	61.3	18.0	11.5
INDIAN OIL CORP	118.65	-1.3	26.9	51.7	23.7	11.6

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
DR LAL PATHLABS	2410.1	-6.9	46.1	46.8	20.4	99.7
OBEROI REALTY	1543.35	-2.5	42.4	47.5	20.3	96.4
L&T TECHNOLOGY S	4727.85	-3.2	37.5	52.9	21.6	96.0
LAURUS LABS LTD	550.15	2.5	41.4	44.8	16.1	95.7
ESCORTS KUBOTA L	2941.85	-0.1	36.4	42.5	15.3	94.5

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
IPCA LABS LTD	1417.4	-1.5	15.3	49.3	14.4	0.6
MANAPPURAM FINAN	204.94	0.4	16.7	64.2	2.7	1.0
STATE BANK IND	710.9	-0.8	18.5	55.4	3.1	2.9
HDFC ASSET MANAG	3765.25	-0.5	23.7	53.2	22.0	3.4
PAGE INDUSTRIES	41929.55	1.9	18.0	41.8	13.0	5.2

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
MRF LTD	107204	-1.5	4775	928	5.2
JK CEMENTS LTD	4575	-0.3	2320	612	3.8
MAHANAGAR GAS LT	1319.2	0.2	7544	2327	3.2
ICICI PRUDENTIAL	566.7	0.1	9019	3098	2.9
VOLTAS LTD	1277.7	0.0	46326	16513	2.8

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
ATUL LTD	5274.4	-3.3	2550	4980	2.0
DR LAL PATHLABS	2410.1	-6.9	10577	18462	1.7
PETRONET LNG LTD	291.5	-4.3	15605	26325	1.7
PIRAMAL ENTERPRI	905.8	-0.3	9771	16342	1.7
GRASIM INDS LTD	2379.3	-0.6	9626	14721	1.5

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
PERSISTENT SYS	5508.1	-2.3	20328	21468	94.7
PUNJAB NATL BANK	93.12	-0.9	20642	23853	86.5
AMBUJA CEMENTS	469.25	-0.2	20132	23282	86.5
GLENMARK PHARMA	1316.35	-0.7	7406	8612	86.0
VODAFONE IDEA LT	7.91	-0.1	40206	47601	84.5

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
STEEL AUTHORITY	106.17	-1.9	13173	13173	100.0
LARSEN & TOUBRO	3225.9	-1.0	41279	42532	97.1
MAHINDRA & MAHIN	2777.85	2.5	42498	44522	95.5
HINDUSTAN AERONA	3287.4	-1.9	34184	36416	93.9
BERGER PAINTS	500.95	-0.4	3892	4315	90.2

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
LTIMINDTREE LTD	4963.2	-1.7	10934	6168	1.8
DR LAL PATHLABS	2410.1	-6.9	3999	2281	1.8
L&T TECHNOLOGY S	4727.85	-3.2	7718	4608	1.7
MAHINDRA & MAHIN	2777.85	2.5	68995	44710	1.5
TATA CONSULTANCY	3629.55	-1.3	64912	43237	1.5

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
PETRONET LNG LTD	291.5	-4.3	15506	9077	1.7
MAHINDRA & MAHIN	2777.85	2.5	42498	25791	1.6
LTIMINDTREE LTD	4963.2	-1.7	4714	3049	1.5
ATUL LTD	5274.4	-3.3	1308	887	1.5
DR LAL PATHLABS	2410.1	-6.9	2279	1576	1.4

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
DR LAL PATHLABS	2410.1	-6.9	10577	2906	3.6
SUN TV NETWORK	602.75	4.0	13064	4182	3.1
INDIAMART INTERM	2000.4	-0.1	8433	3424	2.5
COROMANDEL INTER	1689.6	1.2	7341	3182	2.3
CAN FIN HOMES	577.85	-4.5	7502	3529	2.1

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
DR LAL PATHLABS	2410.1	-6.9	18462	2719	6.8
CAN FIN HOMES	577.85	-4.5	8649	1776	4.9
PIRAMAL ENTERPRI	905.8	-0.3	16342	4703	3.5
PETRONET LNG LTD	291.5	-4.3	26325	7680	3.4
SUN TV NETWORK	602.75	4.0	8776	2785	3.2

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	2800	1048200	31.5%	2130	2800	861300	31.5%	INFY	1900	3313600	7.5%	1768	1700	920000	-3.8%
ADANIPTS	1200	1104800	11.1%	1080	1000	652800	-7.4%	ITC	460	6664000	13.6%	405	400	2388800	-1.2%
APOLLOHOSP	7000	205375	12.0%	6251	6000	66750	-4.0%	JSWSTEEL	1080	878175	12.6%	959	800	415800	-16.6%
ASIANPAINT	2400	1032800	7.9%	2225	2000	251200	-10.1%	KOTAKBANK	2000	1565600	1.7%	1967	1900	810400	-3.4%
AXISBANK	1050	6898125	4.1%	1009	1000	1032500	-0.9%	LT	3600	1540800	11.6%	3226	3250	554250	0.7%
BAJAJ-AUTO	9500	124425	12.9%	8418	8600	60750	2.2%	LTIM	5800	162300	16.9%	4963	4900	85650	-1.3%
BAJAJFINSV	1860	1665500	-0.8%	1875	1860	904000	-0.8%	M&M	3200	747425	15.2%	2778	2600	374500	-6.4%
BAJFINANCE	8500	397750	0.1%	8489	7500	328500	-11.6%	MARUTI	13200	533150	5.8%	12476	12000	292450	-3.8%
BHARTIARTL	1720	4636000	4.8%	1641	1700	674025	3.6%	NESTLEIND	2400	440200	6.6%	2250	2000	185600	-11.1%
BPCL	270	9153000	8.7%	248	250	1470600	0.6%	NTPC	330	8509500	3.5%	319	315	4494000	-1.2%
BRITANNIA	5000	330400	4.2%	4798	4700	86200	-2.0%	ONGC	260	8396850	11.6%	233	240	1930775	3.0%
CIPLA	1500	1577225	2.5%	1463	1440	355875	-1.6%	POWERGRID	300	6314400	17.3%	256	240	1623600	-6.2%
COALINDIA	400	3659250	10.8%	361	450	2202900	24.6%	RELIANCE	1300	7550500	8.0%	1204	1200	2370500	-0.3%
DIVISLAB	6200	333500	8.3%	5726	5400	141500	-5.7%	SBLIFE	1460	624750	-0.8%	1472	1460	235125	-0.8%
DRREDDY	1240	1349375	9.9%	1128	1100	368125	-2.5%	SBIN	800	11140500	12.5%	711	720	3897000	1.3%
EICHERMOT	5500	224350	10.2%	4990	4700	164325	-5.8%	SUNPHARMA	1800	1630300	11.6%	1614	1500	279650	-7.0%
GRASIM	2500	215500	5.1%	2379	2400	217000	0.9%	TATACONSUM	1060	387600	5.5%	1005	900	556776	-10.4%
HCLTECH	1760	1129100	7.6%	1636	1540	743400	-5.9%	TATAMOTORS	700	5919650	5.8%	662	700	2164800	5.8%
HDFCBANK	1760	9059050	4.6%	1682	1680	2165350	-0.1%	TATASTEEL	150	32004500	9.4%	137	140	12413500	2.1%
HDFCLIFE	640	2918300	2.9%	622	540	799700	-13.2%	TCS	4200	663950	15.7%	3630	3600	351575	-0.8%
HEROMOTOCO	4200	495000	9.7%	3828	4100	184800	7.1%	TECHM	1700	673200	6.7%	1594	1500	390000	-5.9%
HINDALCO	610	2171400	-1.5%	619	600	1528800	-3.1%	TITAN	3500	723100	9.4%	3199	3300	229075	3.2%
HINDUNILVR	2500	1008900	10.7%	2259	2200	305100	-2.6%	ULTRACEMCO	12000	167550	9.4%	10964	10000	51650	-8.8%
ICICIBANK	1300	4937100	6.2%	1224	1200	1099000	-2.0%	UPL	580	1060965	-10.4%	648	600	1184270	-7.3%
INDUSINDBK	1100	4336500	6.4%	1034	1000	864500	-3.3%	WIPRO	359	3006000	23.2%	291	300	1599000	3.0%

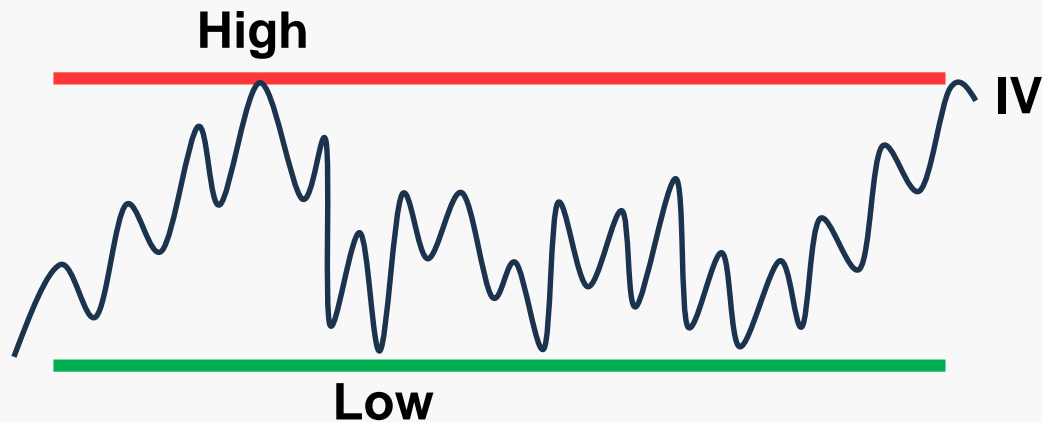
*If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green
If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike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

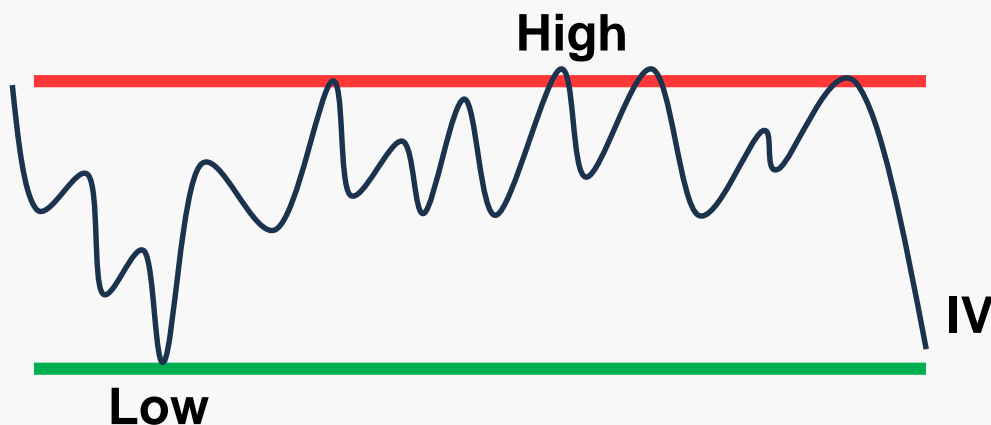
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

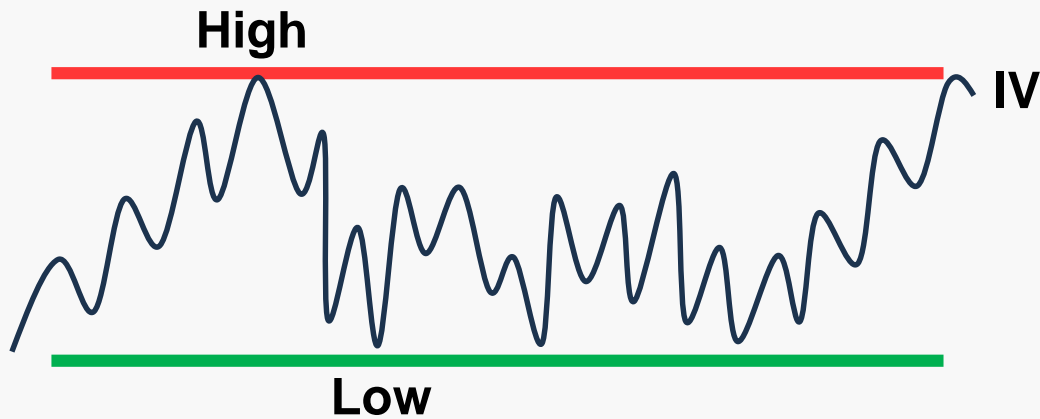


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

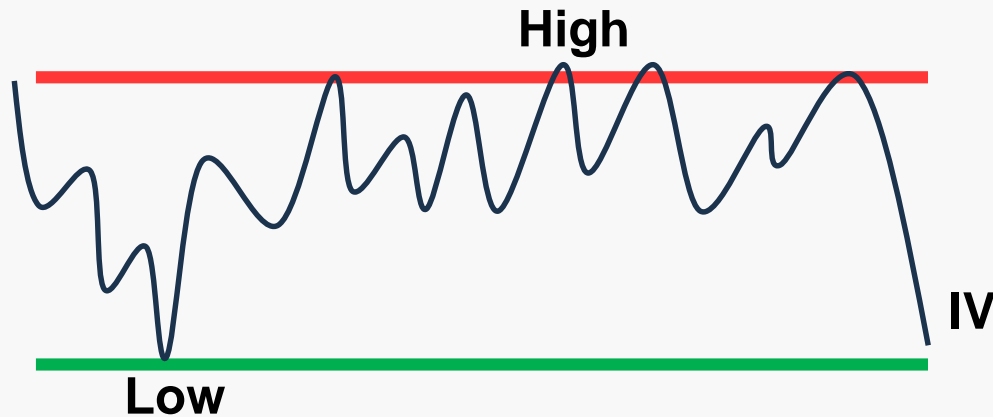


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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