



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,108	0.1% ▼
Open Interest (OI)	1,89,76,800	0.8% ▼
Change in OI (abs)	1,89,76,800	1,48,200 ▼
Premium / Discount (Abs)	76	2 ▼
Inference	Long Unwinding	

Bank Nifty Futures

	Value	Change
Most recent settlement	49,571	0.3% ▼
Open interest (OI)	38,46,510	1.7% ▲
Change in OI (abs)	38,46,510	64,350 ▲
Premium / Discount (Abs)	212	26 ▼
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	14.95	0.0 ▲
Nifty ATM IV (%)	14.33	3.1 ▼
Bank Nifty ATM IV (%)	16.97	0.1 ▼
PCR (Nifty)	0.80	0.05 ▲
PCR (Bank Nifty)	0.75	0.04 ▼

The Long Ratio for the FII Index Futures rose to 15.9%, against 15.1% recorded in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MUTHOOTFIN	36,14,875	19.8%	2326.15	6.2%
SBICARD	1,89,96,000	15.4%	860.25	5.4%
PHOENIXLTD	7,82,600	11.0%	1601.55	0.1%
PRESTIGE	42,09,075	5.4%	1241.3	1.2%
RBLBANK	5,41,20,000	5.2%	164.48	2.1%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KEI	8,38,500	15.3%	3408.95	-2.5%
PIIND	20,35,875	9.7%	3232.9	-3.7%
NYKAA	4,02,32,100	9.5%	170.32	-0.4%
ADANIENT	1,76,70,600	8.2%	2251.9	-4.5%
HINDPETRO	4,50,36,000	7.6%	321.25	-1.5%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
INDIAMART	7,14,300	-10.5%	2197.9	1.1%
LUPIN	67,84,275	-9.6%	2059.75	1.6%
KOTAKBANK	3,96,33,200	-9.3%	1973.8	1.4%
IPCALAB	20,20,200	-8.4%	1491.25	4.5%
NAVINFLUOR	8,70,275	-8.3%	4109.85	0.1%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CUB	2,18,15,000	-7.1%	166.08	-0.6%
BATAINDIA	23,02,125	-6.2%	1336.85	-1.6%
LALPATHLAB	9,97,650	-4.7%	2633.5	-1.8%
ABBOTINDIA	48,020	-3.8%	28393.3	-1.7%
PAGEIND	2,27,655	-3.8%	41729.75	-0.4%

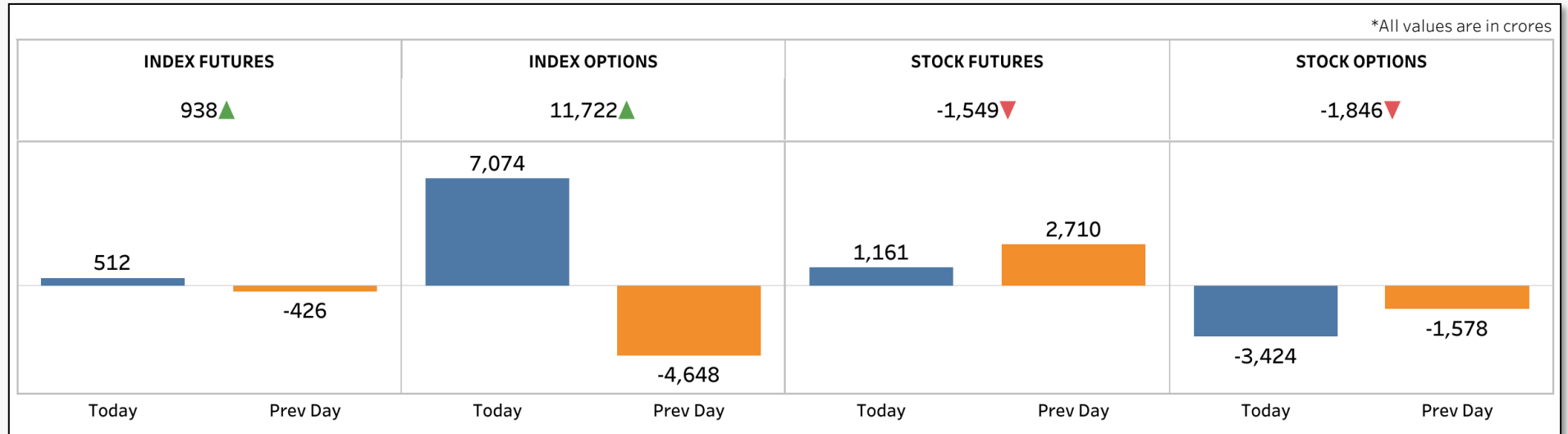
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Data by Participant

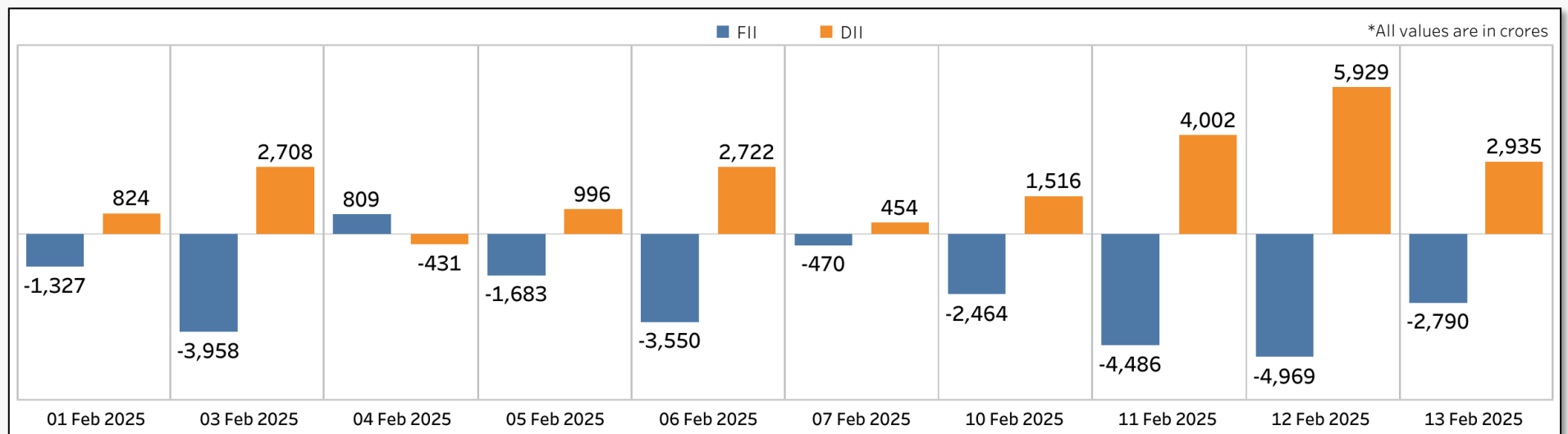
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
24,618 ▲	5,605 ▲	34,477 ▲	-27,866 ▼	0	-10,732 ▼	-737 ▼	59,227 ▲
11,540	3,232	19,477	24,372	0	10,468	0	3,657
-13,078	-2,373	-15,000	52,238	-264		737	-55,570
Net O/S 49,684 Today	Net O/S -183,589 Today	Net O/S 217,568 Today	Net O/S 1,201,497 Today	Net O/S 70 Today	Net O/S 25,959 Today	Net O/S 14,984 Today	Net O/S -3,942,405 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
-138,900 ▼	-1,771 ▼	-154,603 ▼	-10,656 ▼	114,284 ▲	6,898 ▲	120,862 ▲	-20,705 ▼
64,578		89,842		62,783	1,366	45,284	11,012
-74,322	-4,334	-64,761	-18,336	-51,501	-5,532	-75,578	-9,693
Net O/S -12,748 Today	Net O/S 139,564 Today	Net O/S -324,305 Today	Net O/S 2,244,562 Today	Net O/S -37,006 Today	Net O/S 18,066 Today	Net O/S 91,753 Today	Net O/S 496,346 Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day

Daily Net Open Interest Change

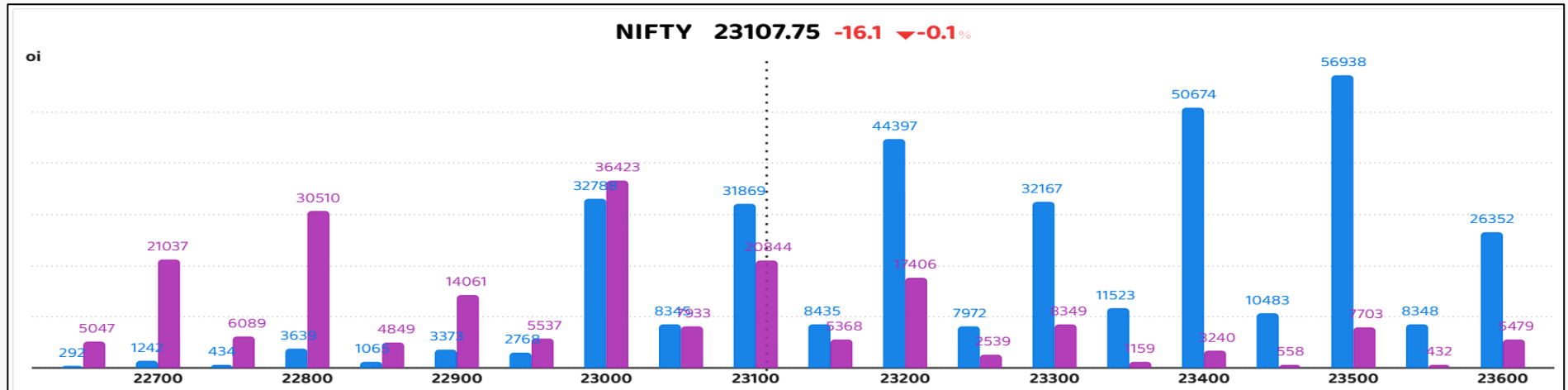


DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 23,500 call and the 23,000 put had the highest call and put concentration (contracts). For the Bank Nifty, the 50,000 call and the 49,000 put saw the most amount of open interest.

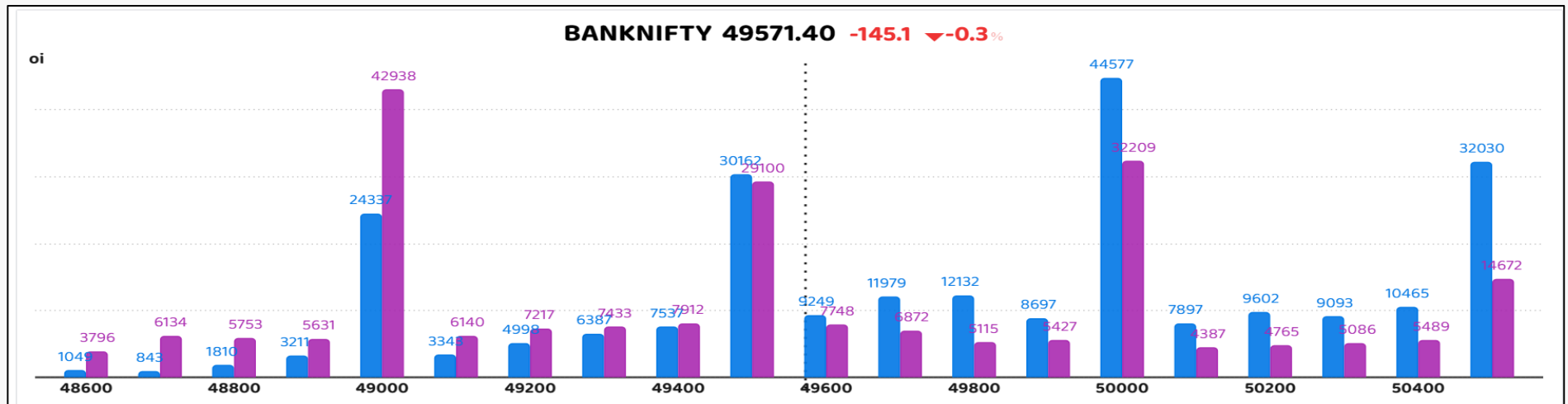
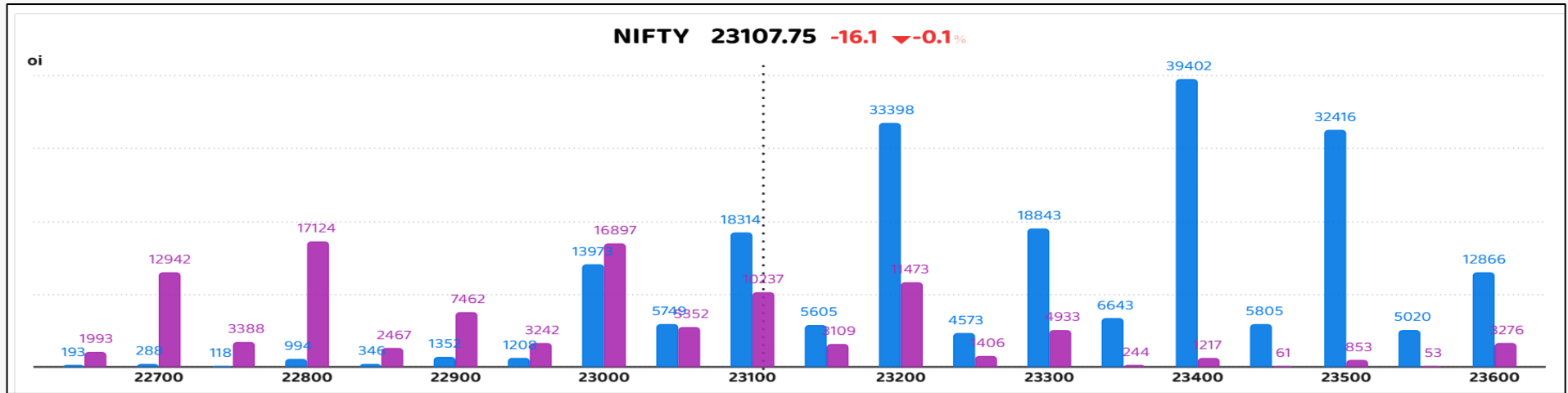


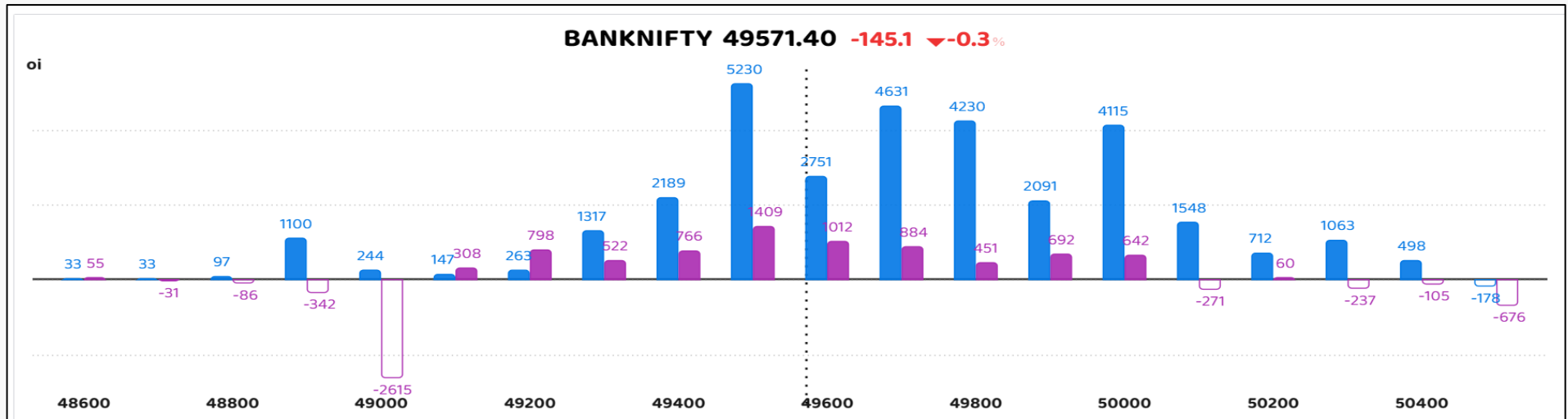
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from the prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23,400 call strike and 22,800 put strike.



For the Bank Nifty, the biggest open interest changes were seen at the 49,500, Call Strike & 49,500 Put strike.

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
MANAPPURAM FINAN	194.06	1.4	61.2	64.2	2.7	95.1
UNITED BREWERIES	2030.25	-1.3	42.8	47.4	13.6	86.3
GUJARAT NARM VLY	571.7	2.2	42.1	53.0	4.8	77.4
DIXON TECHNOLOGI	14710.8	-0.4	39.8	51.5	1.8	76.4
COLGATE PALMOLIV	2475.35	-2.1	26.8	32.8	9.5	74.5

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ORACLE FINANCIAL	9002.65	-0.5	22.1	53.9	22.1	0.0
HDFC LIFE INSURA	629.6	0.1	24.4	80.6	19.6	7.8
CIPLA LTD	1472.15	1.6	22.6	61.3	18.0	10.6
ADANI PORTS AND	1111.55	-1.5	36.2	97.8	23.2	17.4
BANK OF BARODA	210.8	-0.8	32.1	66.9	24.3	18.3

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
UNITED BREWERIES	2030.25	-1.3	42.8	47.4	13.6	98.6
MANAPPURAM FINAN	194.06	1.4	61.2	64.2	2.7	98.3
L&T FINANCE LTD	140.33	-0.3	43.5	67.0	5.4	95.8
IPCA LABS LTD	1490.9	5.0	39.4	49.3	14.4	94.9
ABB INDIA LTD	5442.75	-0.1	41.6	56.4	23.7	94.2

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ORACLE FINANCIAL	9002.65	-0.5	22.1	53.9	22.1	0.0
BHARTI AIRTEL	1714.6	0.2	18.6	34.3	4.6	4.1
PIDILITE INDS	2818.1	-0.4	18.0	33.7	13.3	5.0
BOSCH LTD	27350.4	-0.1	19.4	39.2	3.3	6.2
JK CEMENTS LTD	4795.95	1.0	20.2	42.0	5.9	7.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
INDIAMART INTERM	2199.35	1.2	4593	652	7.0
MRF LTD	109767	0.3	4933	860	5.7
SHREE CEMENT	28225	0.0	5545	1597	3.5
JK CEMENTS LTD	4795.95	1.0	2696	806	3.3
VODAFONE IDEA LT	8.64	3.0	40107	12133	3.3

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
GLENMARK PHARMA	1411.2	0.4	9284	13792	1.5
ATUL LTD	5590.7	-1.4	3012	3180	1.1
DR LAL PATHLABS	2623.5	-1.9	2046	2142	1.0
PVR INOX LTD	1060.45	0.6	6051	6291	1.0
ABBOTT INDIA LTD	28359.05	-1.5	1672	1718	1.0

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
ALKEM LABORATORI	4682.55	0.2	10035	10152	98.9
GODREJ PROPERTIE	2025.70	5.0	25522	26138	97.6
PAGE INDUSTRIES	41681.25	-2.4	19475	20043	97.2
VOLTAS LTD	1248.55	-3.9	32141	33116	97.1
LARSEN & TOUBRO	3263.65	-0.8	82488	85207	96.8

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
LARSEN & TOUBRO	3263.65	-0.8	39734	39734	100.0
GODREJ PROPERTIE	2025.7	5.0	9198	9326	98.6
STEEL AUTHORITY	109.33	3.4	11581	12430	93.2
ALKEM LABORATORI	4719.55	0.2	5349	5744	93.1
LAURUS LABS LTD	601	0.0	7588	8384	90.5

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
MUTHOOT FINANCE	2317.80	6.2	73832	86419	85.4

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
IPCA LABS	1490.90	5.0	13983	13983	100.0

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
IPCA LABS LTD	1490.9	5.0	26819	3202	8.4
MUTHOOT FINANCE	2317.8	6.2	73832	11040	6.7
JUBILANT FOODWOR	662.1	3.3	42949	10987	3.9
LUPIN LTD	2055.25	1.5	80387	21072	3.8
BHARAT FORGE CO	1076.2	-2.6	35495	10011	3.5

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
MUTHOOT FINANCE	2317.8	6.2	40050	6262	6.4
IPCA LABS LTD	1490.9	5.0	13983	2662	5.3
BHARAT FORGE CO	1076.2	-2.6	29253	5879	5.0
JUBILANT FOODWOR	662.1	3.3	32403	7808	4.2
ASHOK LEYLAND	217.07	-1.0	44074	13770	3.2

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
ALKEM LABORATORI	4719.55	0.2	10035	4130	2.4
PAGE INDUSTRIES	41681.25	-2.4	19475	8029	2.4
PI INDUSTRIES	3226.65	-3.9	12018	5687	2.1
EICHER MOTORS	4820.4	-0.6	26260	12609	2.1
MUTHOOT FINANCE	2317.8	6.2	9112	4644	2.0

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
MUTHOOT FINANCE	2317.8	6.2	7790	3296	2.4
ALKEM LABORATORI	4719.55	0.2	5349	2553	2.1
IPCA LABS LTD	1490.9	5.0	2251	1155	1.9
PAGE INDUSTRIES	41681.25	-2.4	4309	2275	1.9
BHARTI AIRTEL	1714.6	0.2	28936	15597	1.9

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
ADANIANT	2400	1432500	6.9%	2245	2800	2617800	24.7%	INFY	1900	3469200	3.1%	1843	1700	1060000	-7.8%
ADANIPTS	1200	1710800	8.0%	1111	1100	748400	-1.0%	ITC	450	13356800	9.8%	410	400	4321600	-2.4%
APOLLOHOSP	7000	418375	9.9%	6372	6200	137750	-2.7%	JSWSTEEL	1000	1086750	3.1%	970	950	582525	-2.0%
ASIANPAINT	2400	1437800	7.3%	2236	2100	377000	-6.1%	KOTAKBANK	2000	2723600	1.4%	1973	1800	846800	-8.8%
AXISBANK	1050	7738750	4.1%	1008	1000	2285000	-0.8%	LT	3600	1747800	10.3%	3264	3300	703650	1.1%
BAJAJ-AUTO	9000	181350	3.5%	8692	8600	82200	-1.1%	LTIM	6000	124050	7.1%	5601	5000	73350	-10.7%
BAJAJFINSV	1860	1943500	0.6%	1849	1700	690000	-8.1%	M&M	3200	1171800	7.5%	2978	2900	527625	-2.6%
BAJFINANCE	8500	527875	1.1%	8409	8000	447000	-4.9%	MARUTI	13200	544900	4.2%	12671	12000	282400	-5.3%
BHARTIARTL	1720	4761875	0.3%	1715	1700	2097600	-0.9%	NESTLEIND	2400	734800	10.2%	2178	2000	262600	-8.2%
BPCL	270	1E+07	5.6%	256	250	1553400	-2.2%	NTPC	340	10500000	10.9%	307	390	3769500	27.2%
BRITANNIA	5000	378100	2.3%	4889	5000	91900	2.3%	ONGC	270	12662650	14.9%	235	235	2721950	0.0%
CIPLA	1500	1723475	1.9%	1472	1260	318175	-14.4%	POWERGRID	300	8908200	15.8%	259	240	2124000	-7.4%
COALINDIA	400	5694150	10.6%	362	450	3075450	24.4%	RELIANCE	1300	13304000	6.9%	1216	1200	4334000	-1.3%
DIVISLAB	6200	193700	3.2%	6010	5400	132700	-10.2%	SBILIFE	1460	770625	-0.7%	1471	1400	322875	-4.8%
DRREDDY	1240	1388125	1.3%	1224	1200	485000	-1.9%	SBIN	800	22110000	9.9%	728	700	5088000	-3.8%
EICHERMOT	5500	625450	14.1%	4820	5000	198800	3.7%	SHRIRAMFIN	600	1206750	9.4%	549	500	711000	-8.9%
GRASIM	2600	342250	4.4%	2490	2300	261500	-7.6%	SUNPHARMA	1800	1728300	3.1%	1746	1700	928900	-2.7%
HCLTECH	1760	1278900	3.3%	1703	1540	649600	-9.6%	TATACONSUM	1100	673968	7.5%	1023	900	638856	-12.0%
HDFCBANK	1760	9624450	3.7%	1698	1700	2200550	0.1%	TATAMOTORS	800	10419750	17.0%	684	700	3425950	2.4%
HDFCLIFE	640	2709300	1.7%	630	540	806300	-14.2%	TATASTEEL	150	32807500	10.1%	136	130	14910500	-4.6%
HEROMOTOCO	4200	694350	6.2%	3956	4100	274500	3.6%	TCS	4200	1162175	7.4%	3910	4000	508200	2.3%
HINDALCO	600	2769200	-0.4%	603	600	2360400	-0.4%	TECHM	1700	834600	1.5%	1675	1600	477000	-4.5%
HINDUNILVR	2500	1733700	7.7%	2322	2200	484800	-5.2%	TITAN	3600	1285375	11.4%	3232	3200	586425	-1.0%
ICICIBANK	1300	6343400	4.1%	1249	1200	2272200	-3.9%	ULTRACEMCO	12000	231050	3.9%	11546	11000	111650	-4.7%
INDUSINDBK	1100	4919000	5.0%	1047	1000	1185000	-4.5%	WIPRO	320	3633000	3.7%	309	300	2436000	-2.8%

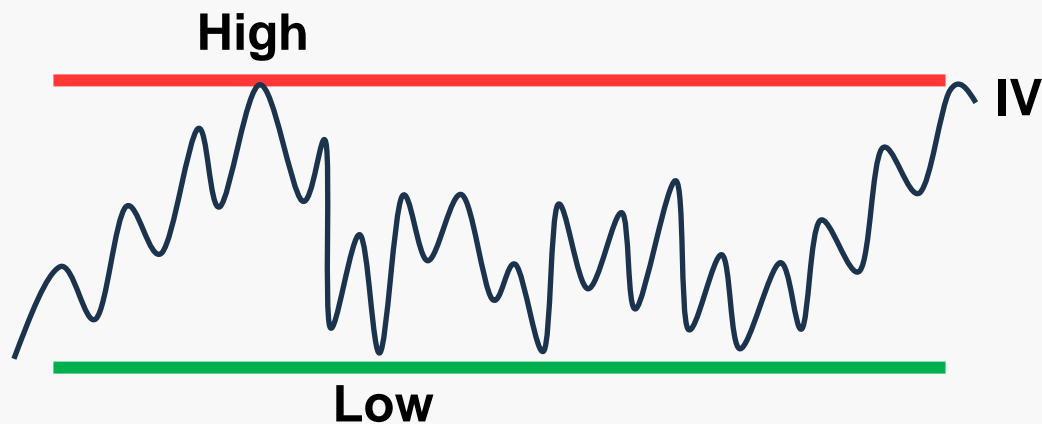
*If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green
If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike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

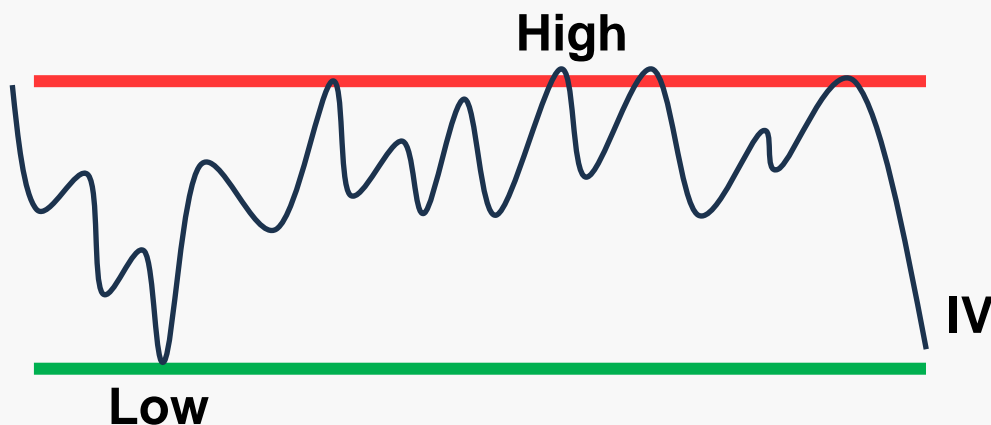
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

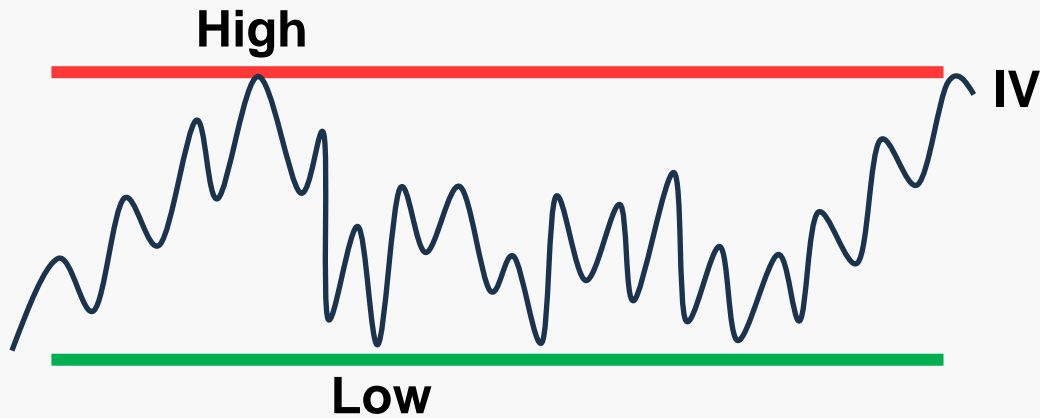


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

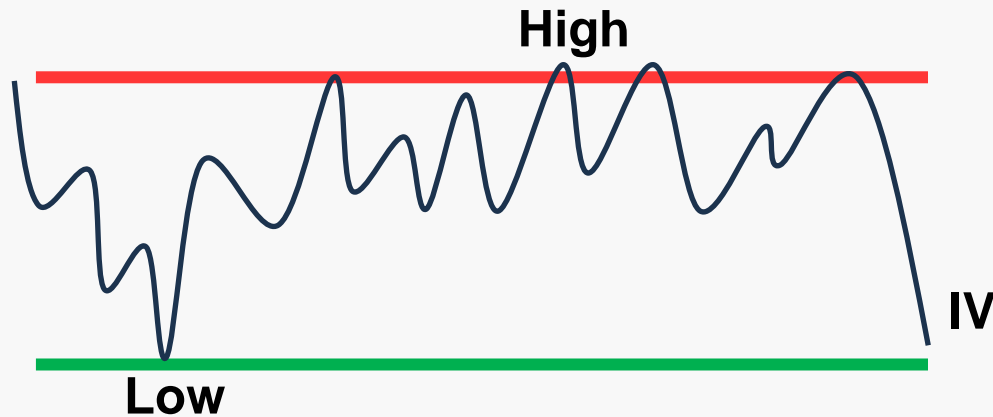


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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