



# Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	22,895	1.4%▲
Open Interest (OI)	1,98,03,600	0.7%▼
Change in OI (abs)	1,98,03,600	146250▼
Premium / Discount (Abs)	61	14▼
<b>Inference</b>	<b>Short Covering</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	49,422	1.9%▲
Open interest (OI)	45,91,680	0.2%▼
Change in OI (abs)	45,91,680	8160▼
Premium / Discount (Abs)	108	24▼
<b>Inference</b>	<b>Short Covering</b>	

## Volatility Insights

	Value	Change
India VIX Index	13.21	0.2▼
Nifty ATM IV (%)	12.27	0.6▼
Bank Nifty ATM IV (%)	13.85	0.4▼
PCR (Nifty)	1.29	0.24▲
PCR (Bank Nifty)	1.20	0.17▲

The Long Ratio for the FII Index Futures **jump** to 24%, against 20.1% recorded in the previous session.

## Single Stock Futures Movers

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

Symbol	Open Interest	Chg (%)	Price	Chg (%)
NCC	1,68,21,675	19.9%	191.98	3.9%
BHEL	8,86,20,000	12.1%	204.53	4.3%
IREDA	3,45,65,100	11.8%	145.35	5.9%
HDFCAMC	27,55,350	7.5%	3841.5	2.2%
HUDCO	1,95,60,050	6.8%	189.27	0.8%

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

Symbol	Open Interest	Chg (%)	Price	Chg (%)
CHAMBLFERT	87,98,900	5.7%	570.5	-1.3%
HINDPETRO	5,62,26,150	4.1%	324.25	-0.5%
RELIANCE	14,66,12,000	4.1%	1243.6	0.0%
SBICARD	1,64,27,200	3.2%	840.15	-0.7%
BHARTIARTL	4,17,62,000	1.6%	1633	-0.5%

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

Symbol	Open Interest	Chg (%)	Price	Chg (%)
APOLLOTYRE	98,10,700	-6.9%	411.3	2.0%
JKCEMENT	4,76,500	-6.1%	4504.4	3.0%
JSWENERGY	1,85,35,500	-4.8%	548.6	3.8%
LICHSGFIN	2,39,23,000	-4.3%	541.65	3.7%
POLYCAB	24,30,625	-3.9%	5178.95	3.3%

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

Symbol	Open Interest	Chg (%)	Price	Chg (%)
PIDILITIND	46,29,000	-1.1%	2733.35	-0.7%
BAJAJFINSV	1,91,06,500	-0.3%	1851.4	-1.4%
KPITTECH	27,40,000	1.5%	1247.45	-0.4%
BHARTIARTL	4,17,62,000	1.6%	1633	-0.5%
KPITTECH	27,40,000	1.5%	1247.45	-0.4%

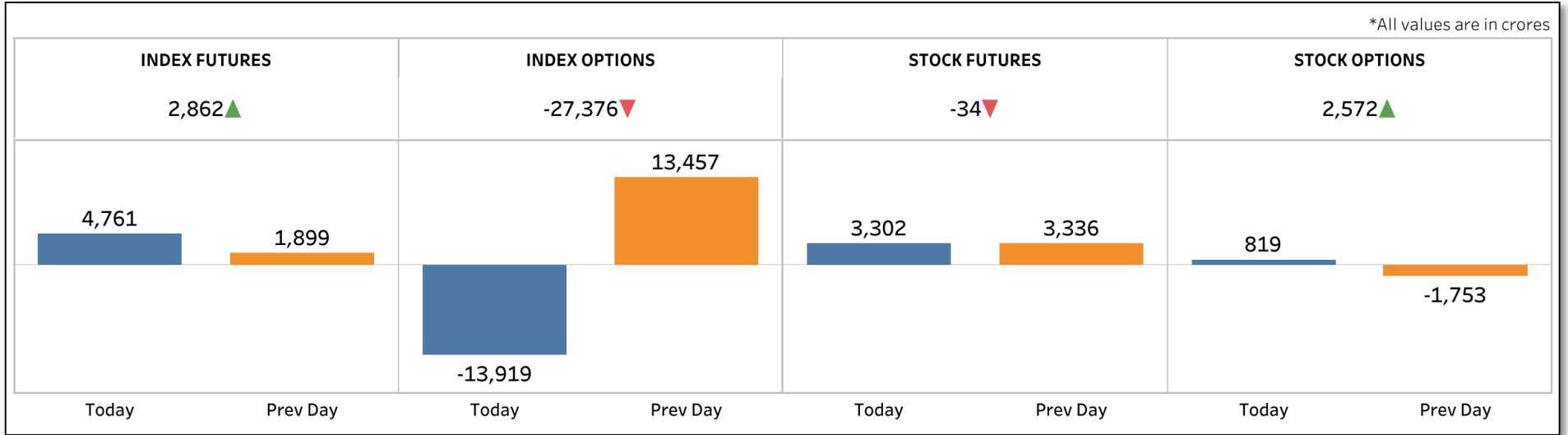
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Data by Participant

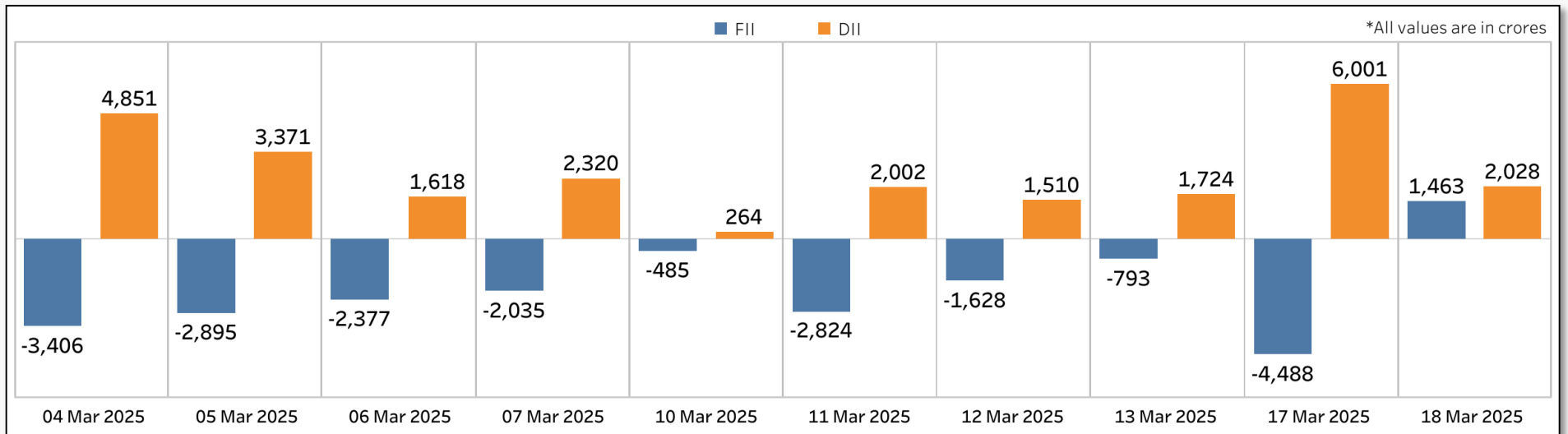
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-71,418 ▼	18,623 ▲	-69,803 ▼	3,328 ▲	-60 ▼	747 ▲	4,000 ▲	38,163 ▲
63,004	30,773	12,150	9,670	833	86	4,000	0
-8,414		-60,133		-336	-276		-25,836
60,346	57,018						12,327
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
100,988	-118,392	173,535	1,610,494	590	60,456	22,154	-3,898,085
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
136,272 ▲	-17,837 ▼	272,081 ▲	-31,437 ▼	-64,794 ▼	-1,533 ▼	-206,274 ▼	-10,054 ▼
		285,938	13,857	59,432	124,226		
-50,682	-23,119	-5,282	-35,427	-8,487	-6,954	-23,529	-37,246
-186,954			-3,990			-229,803	-27,192
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-366,899	106,093	55,649	1,994,347	265,321	-48,157	-251,339	293,244
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day

## Daily Net Open Interest Change

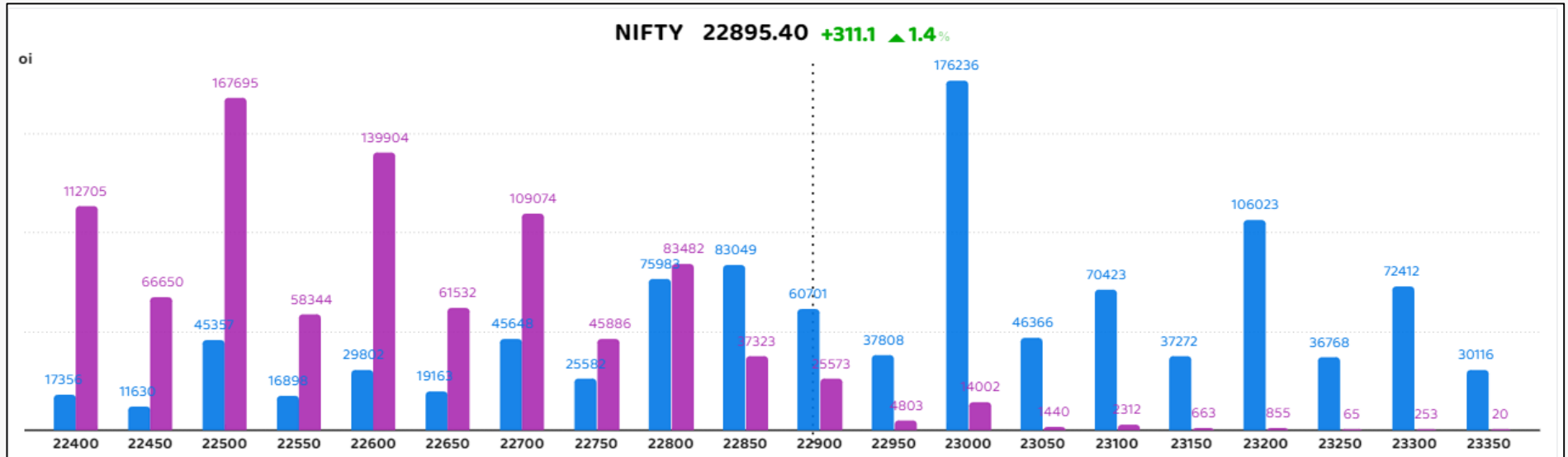


## DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 23000 Call and the 22500 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.

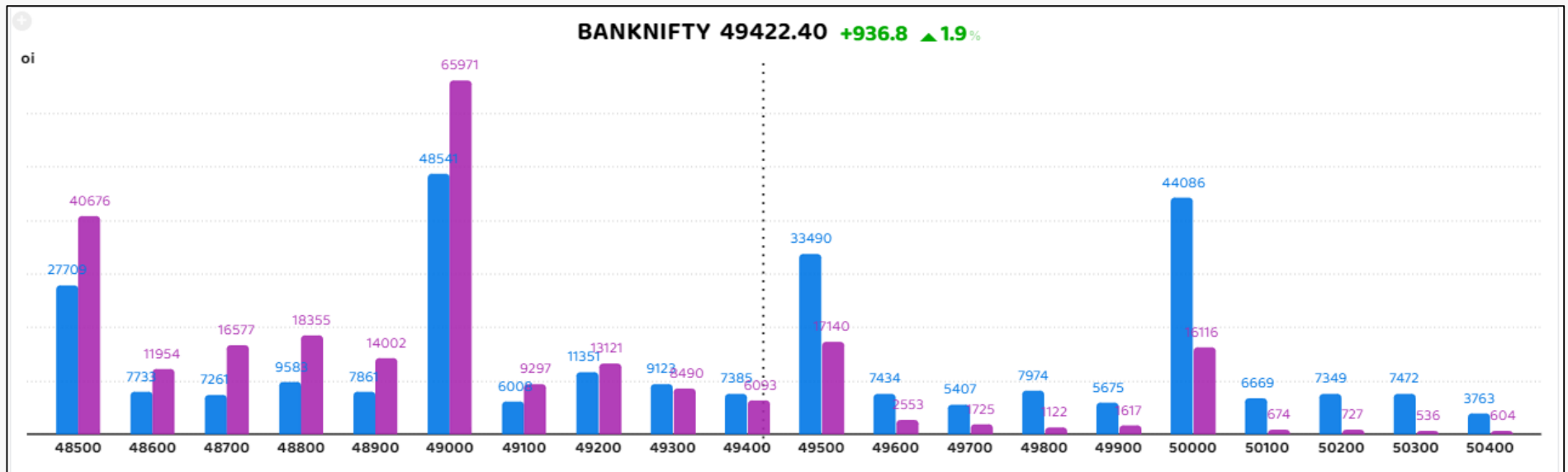
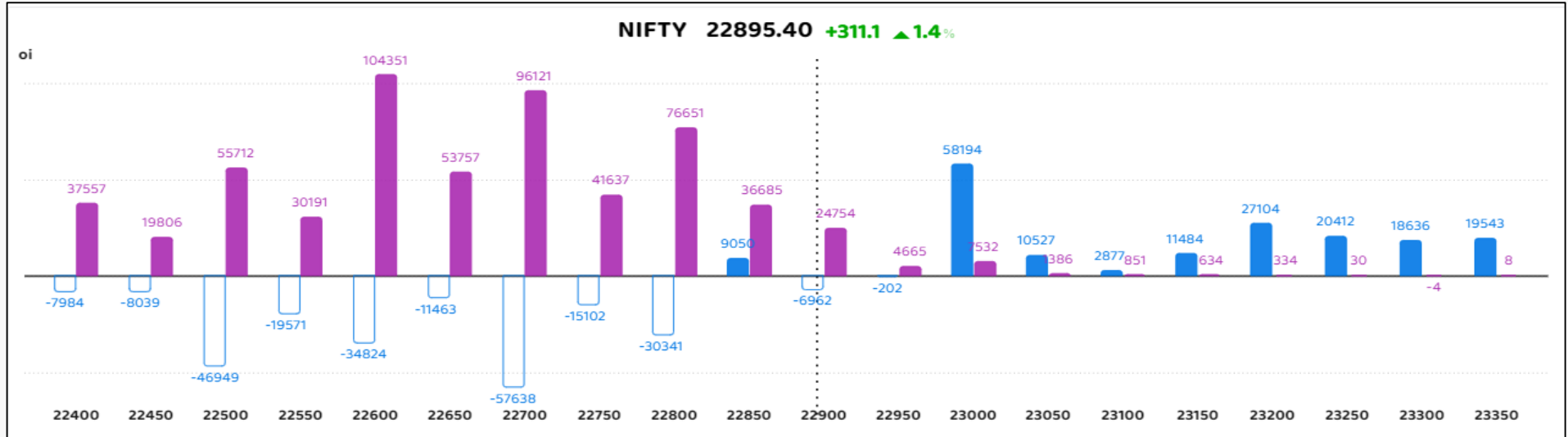


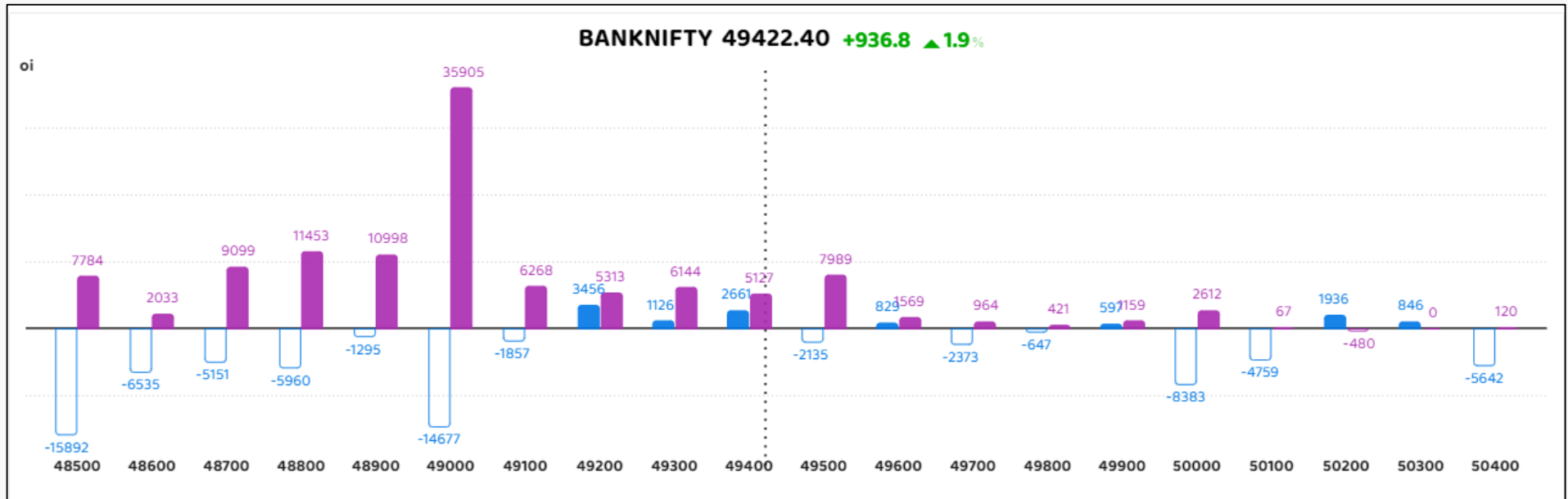
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



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



For the Bank Nifty, the biggest open interest changes were seen at the 48500 Call & the 49000 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
LTIMINDTREE LTD	4445.55	2.0	36.1	37.3	20.0	93.3
SONA BLW PRECISI	493.85	1.6	43.7	45.8	18.5	92.3
INDUSIND BANK	681.45	0.6	57.9	64.6	12.4	87.0
DIXON TECHNOLOGI	13470.15	2.8	43.9	51.5	1.8	84.6
LAURUS LABS LTD	587.15	1.0	40.0	44.8	16.1	83.2

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
DALMIA BHARAT LT	1714.4	3.1	17.5	41.8	17.5	0.0
GLENMARK PHARMA	1456.35	1.9	15.9	53.9	15.9	0.0
MRF LTD	107839.2	2.3	7.6	36.7	7.6	0.2
ADANI TOTAL GAS	609	0.9	29.6	78.9	28.9	1.5
PAGE INDUSTRIES	40599.6	0.6	14.3	41.8	13.0	4.8

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INDUSIND BANK	681.45	0.6	57.9	64.6	12.4	99.5
LTIMINDTREE LTD	4445.55	2.0	36.1	37.3	20.0	98.8
SONA BLW PRECISI	493.85	1.6	43.7	45.8	18.5	97.8
BSE LTD	4146.7	4.7	59.2	64.8	37.1	96.7
TORRENT POWER LT	1375.95	5.0	46.4	58.3	18.8	94.1

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
DALMIA BHARAT LT	1714.4	3.1	17.5	41.8	17.5	0.0
GLENMARK PHARMA	1456.35	1.9	15.9	53.9	15.9	0.0
MRF LTD	107839.2	2.3	7.6	36.7	7.6	0.4
PAGE INDUSTRIES	40599.6	0.6	14.3	41.8	13.0	1.1
TORRENT PHARMA	3135.7	2.3	14.6	45.4	12.0	1.1



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

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
YES BANK LTD	16.44	2.0	4094	633	6.5
INDUSIND BANK	681.45	0.6	10023	2061	4.9
AARTI INDUS LTD	388.7	1.0	9410	2104	4.5
ESCORTS KUBOTA L	3018.5	1.9	6107	1377	4.4
KEI INDUS LTD	3265.95	4.5	28079	6340	4.4

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

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
MAHANAGAR GAS LT	1323.9	0.9	3933	5727	1.5
BALKRISHNA INDS	2546.75	0.7	1476	1652	1.1
TATA STEEL LTD	154.66	1.9	40452	43824	1.1
SUN PHARMA INDU	1747.8	2.6	31483	31399	1.0
LIC HOUSING FIN	539.8	3.7	8104	7514	0.9

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
IIFL FINANCE LTD	325.85	6.0	2841	2841	100.0
TATA TECHNOLOGIE	648.05	3.1	3968	3968	100.0
INDIAN RENEWABLE	145.95	5.6	5986	5986	100.0
SOLAR INDUSTRIES	10085.65	0.0	2883	2920	98.7
PATANJALI FOODS	1741.45	1.0	5001	5249	95.3

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
IIFL FINANCE LTD	325.85	6.0	2465	2465	100.0
TITAGARH RAIL SY	710.5	2.9	2152	2152	100.0
SOLAR INDUSTRIES	10085.65	0.0	2031	2031	100.0
COMPUTER AGE MAN	3602.2	5.2	5516	5516	100.0
PRESTIGE ESTATES	1132.5	3.0	3653	3653	100.0

### Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
TATA TECHNOLOGIE	648.05	3.1	6787	6787	100.0
INDIAN RENEWABLE	145.95	5.6	16932	16932	100.0
PB FINTECH LTD	1454	7.3	33584	33584	100.0
VARUN BEVERAGES	532.5	5.0	49922	54157	92.2

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
INDIAN RENEWABLE	145.95	5.6	4910	4910	100.0
VARUN BEVERAGES	532.5	5.0	30294	30294	100.0

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

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
INDUSIND BANK	681.45	0.6	102700	57316	1.8
TITAGARH RAIL SY	710.5	2.9	4730	2681	1.8
WIPRO LTD	261.25	0.5	27772	16500	1.7
IIFL FINANCE LTD	325.85	6.0	2841	1786	1.6
TATA TECHNOLOGIE	648.05	3.1	3968	2538	1.6

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

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
SUN PHARMA INDU	1747.8	2.6	21337	11973	1.8
LTIMINDTREE LTD	4445.55	2.0	8027	4536	1.8
SOLAR INDUSTRIES	10085.65	0.0	2031	1175	1.7
DALMIA BHARAT LT	1714.4	3.1	2679	1580	1.7
TITAGARH RAIL SY	710.5	2.9	2152	1355	1.6

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
DALMIA BHARAT LT	1714.4	3.1	13309	3080	4.3
JK CEMENTS LTD	4497.4	3.2	4711	1278	3.7
BOSCH LTD	27343.65	3.8	9293	3448	2.7
ICICI BANK LTD	1309.85	3.2	135348	50294	2.7
GODREJ CONSUMER	1083.65	3.0	20806	8046	2.6

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
ICICI BANK LTD	1309.85	3.2	106723	41180	2.6
BAJAJ FINSERV LT	1844.65	-1.4	44375	19174	2.3
APOLLO TYRES LTD	410.1	1.9	8666	4107	2.1
BOSCH LTD	27343.65	3.8	2307	1109	2.1
DALMIA BHARAT LT	1714.4	3.1	4545	2295	2.0

## 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	1241700	12.6%	2309	2600	2686800	12.6%	INFY	1700	2680400	5.6%	1609	1600	1110000	-0.6%
ADANIPTS	1200	1220000	3.6%	1159	1100	1045600	-5.1%	ITC	420	5764800	2.7%	409	400	4468800	-2.2%
APOLLOHOSP	6300	111125	0.9%	6247	6000	64750	-4.0%	JSWSTEEL	1020	1091475	0.2%	1018	1000	905850	-1.8%
ASIANPAINT	2300	784600	1.1%	2274	2200	546800	-3.3%	KOTAKBANK	2000	1022400	-1.7%	2034	1980	1296800	-2.7%
AXISBANK	1050	2614375	0.5%	1045	1000	1633125	-4.3%	LT	3300	900300	0.9%	3271	3100	539400	-5.2%
BAJAJ-AUTO	8000	207600	5.1%	7613	7400	103050	-2.8%	LTIM	4800	282150	8.0%	4446	4000	162150	-10.0%
BAJAJFINSV	1900	1959000	3.0%	1845	1800	831500	-2.4%	M&M	3000	1101100	7.5%	2791	2600	568225	-6.9%
BAJFINANCE	9000	501750	3.7%	8683	8500	385375	-2.1%	MARUTI	11800	266450	0.7%	11715	11500	132000	-1.8%
BHARTIARTL	1700	4509175	4.5%	1627	1600	1990250	-1.7%	NESTLEIND	2260	217600	2.6%	2202	2100	289200	-4.6%
BPCL	270	1.6E+07	3.0%	262	260	2530800	-0.8%	NTPC	340	12534000	0.8%	337	310	3322500	-8.1%
BRITANNIA	4900	121800	2.8%	4768	4100	86900	-14.0%	ONGC	240	10627925	3.4%	232	220	4743200	-5.2%
CIPLA	1500	813475	-0.6%	1509	1240	519025	-17.8%	POWERGRID	280	6939000	3.4%	271	260	1886400	-4.0%
COALINDIA	395	5220600	1.5%	389	450	2714250	15.6%	RELIANCE	1300	9240500	4.9%	1239	1200	4241500	-3.1%
DIVISLAB	6000	134000	3.9%	5773	4700	93400	-18.6%	SBLIFE	1500	527250	2.9%	1458	1400	347625	-3.9%
DRREDDY	1200	2210000	3.1%	1164	1100	692500	-5.5%	SBIN	800	6877500	8.6%	737	700	4943250	-5.0%
EICHERMOT	5100	216125	-0.5%	5127	5000	244300	-2.5%	SUNPHARMA	1680	2052050	-3.9%	1748	1600	1012200	-8.5%
GRASIM	2420	317750	-0.1%	2422	2400	212500	-0.9%	TATACONSUM	1000	680808	5.6%	947	950	528960	0.3%
HCLTECH	1600	695100	2.7%	1558	1400	747600	-10.2%	TATAMOTORS	700	7186850	2.9%	680	650	2489850	-4.4%
HDFCBANK	1800	3174050	3.9%	1732	1700	2511850	-1.9%	TATASTEEL	155	38439500	0.2%	155	140	13871000	-9.5%
HDFCLIFE	700	1378300	9.3%	641	550	921800	-14.1%	TCS	3800	1136975	7.0%	3552	3500	717675	-1.5%
HEROMOTOCO	4000	534900	12.2%	3565	3100	345300	-13.0%	TECHM	1600	1015800	11.8%	1431	1400	577800	-2.1%
HINDALCO	700	3409000	0.3%	698	620	2818200	-11.2%	TITAN	3200	617575	3.8%	3082	3000	267575	-2.7%
HINDUNILVR	2300	925800	4.5%	2201	2100	496800	-4.6%	ULTRACEMCO	11000	142450	2.8%	10698	10400	85000	-2.8%
ICICIBANK	1320	2171400	0.8%	1310	1300	3077200	-0.8%	UPL	640	2089410	0.8%	635	610	1051480	-4.0%
INDUSINDBK	750	5061000	10.1%	681	600	1341500	-12.0%	WIPRO	300	9441000	14.8%	261	240	4083000	-8.1%

*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*

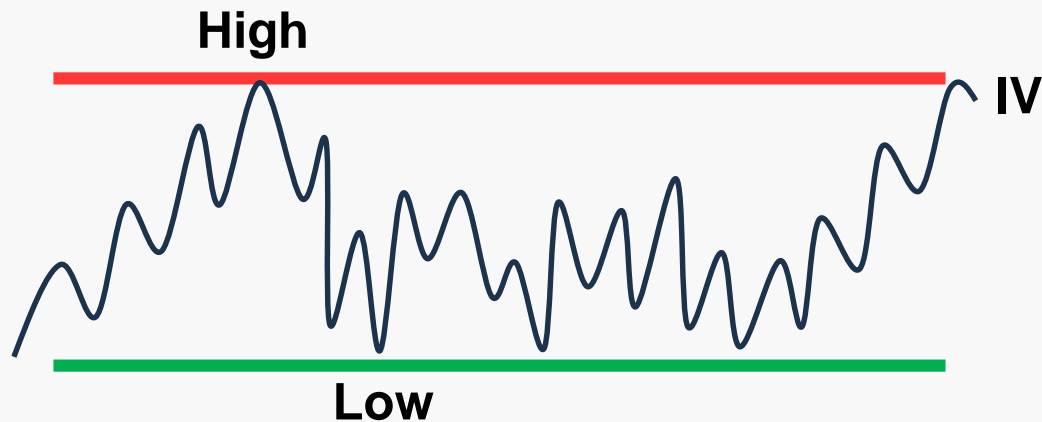
- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating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

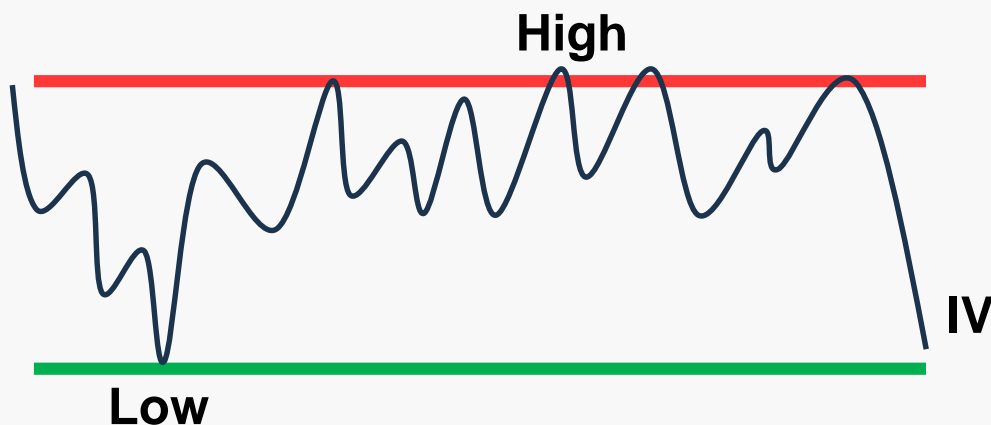
- **Volume:** Number of contracts traded for the day. If A bought 10 calls & B sold 10 calls, the volume for the day is 10 contracts
- **Open Interest:** The number of derivatives contracts that are open (have not been closed out). If A bought 10 calls, B bought another 10 calls and C sold 20 calls, 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

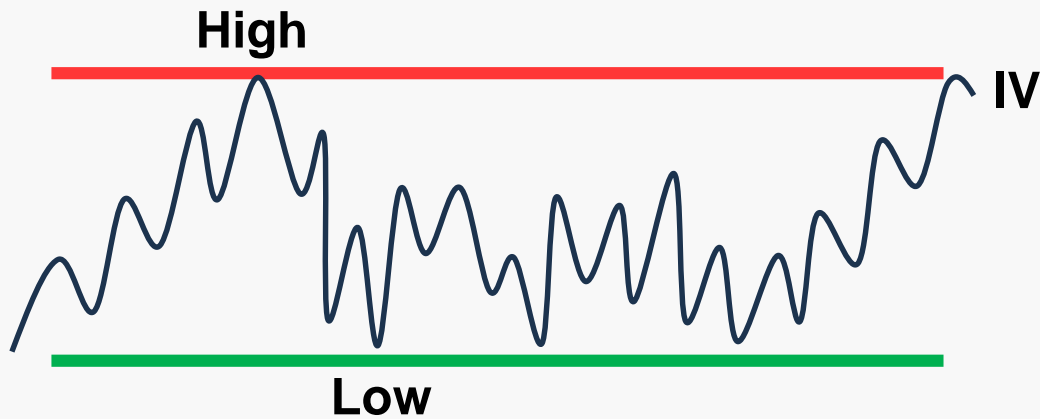


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

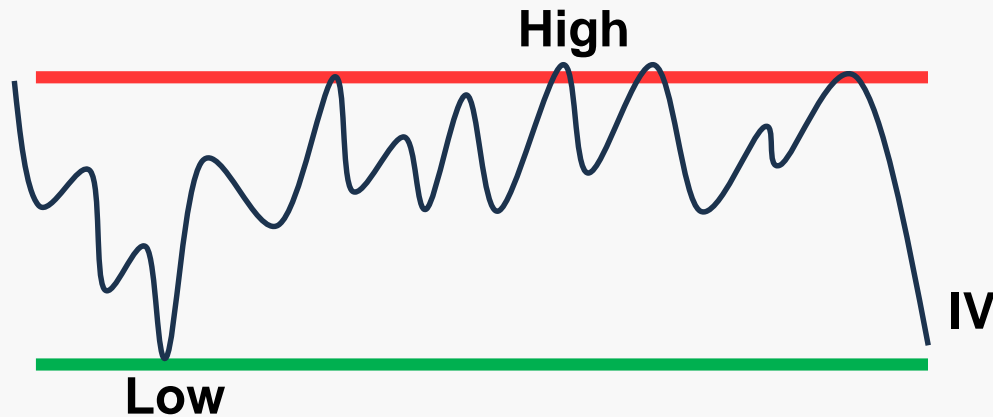


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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