



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	24,893	0.2%▲
Open Interest (OI)	1,84,72,125	0.2%▼
Change in OI (abs)	1,84,72,125	27,600▼
Premium / Discount (Abs)	120	13▲
<b>Inference</b>	<b>Short Covering</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	54,500	0.3%▲
Open interest (OI)	30,30,825	1.8%▼
Change in OI (abs)	30,30,25	56,035▼
Premium / Discount (Abs)	313	63▲
<b>Inference</b>	<b>Short Covering</b>	

## Volatility Insights

	Value	Change
India VIX Index	10.84	0.06▲
Nifty ATM IV (%)	9.81	0.1▲
Bank Nifty ATM IV (%)	10.59	0.4▲
PCR (Nifty)	0.95	0.09▲
PCR (Bank Nifty)	0.95	0.06▲

The FII Long Ratio in Index Futures **jump** to 7.9 %, **up** from 7.3 % in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MARUTI	33,81,600	8.7%	15230	2.1%
MANAPPURAM	2,70,42,000	6.9%	293.35	2.6%
NCC	1,60,27,200	5.2%	208.56	0.4%
IIFL	1,42,27,950	4.9%	448.6	2.6%
MOTHERSON	18,44,20,050	4.7%	99.09	4.2%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BLUESTARCO	16,42,225	6.5%	1889.5	-2.7%
PERSISTENT	27,42,100	6.3%	5037.5	-2.2%
HCLTECH	2,08,85,550	5.2%	1410.2	-1.1%
APOLLOHOSP	28,54,625	4.6%	7827.5	-0.2%
PGEL	98,08,400	4.4%	553.05	-0.7%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BHARATFORG	1,04,71,500	-7.2%	1208	6.4%
SHREECEM	2,23,225	-4.3%	30565	1.4%
BSE	1,17,72,000	-3.7%	2353.8	1.0%
KFINTECH	16,66,800	-3.7%	1099.9	1.0%
MANKIND	15,72,300	-2.8%	2585.9	1.0%

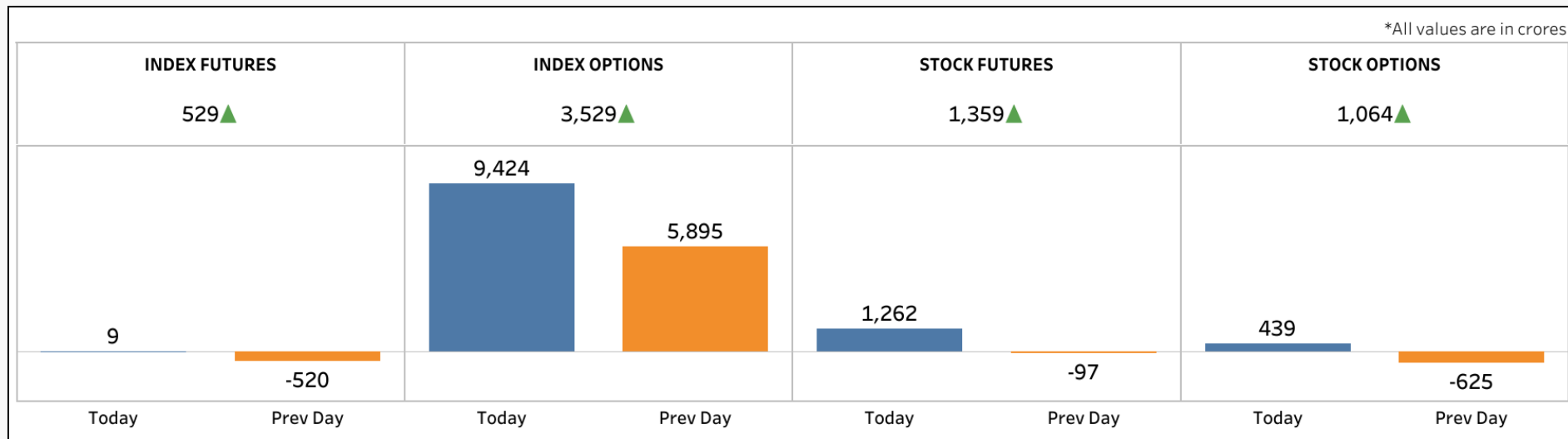
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
AMBER	7,08,600	-6.7%	7496	-4.1%
PPLPHARMA	1,10,72,500	-2.4%	199.57	-1.2%
DRREDDY	1,21,64,375	-1.7%	1253.7	-0.7%
MARICO	2,47,04,400	-1.3%	732.95	-0.2%
SBILIFE	71,61,000	-1.2%	1785.3	-1.6%

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

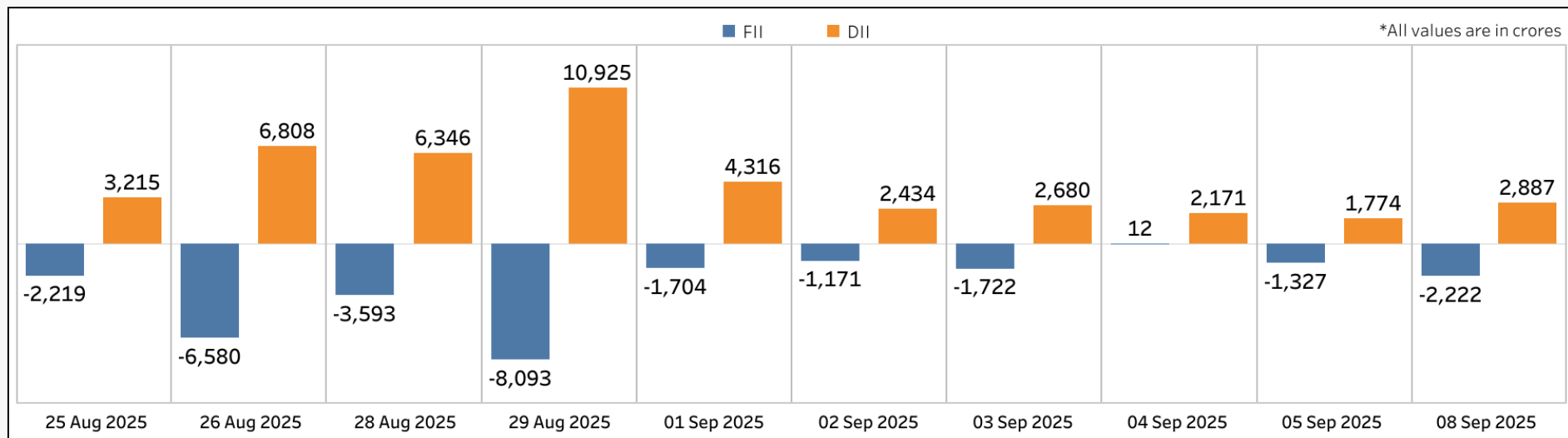
## Open Interest Trends by Participant

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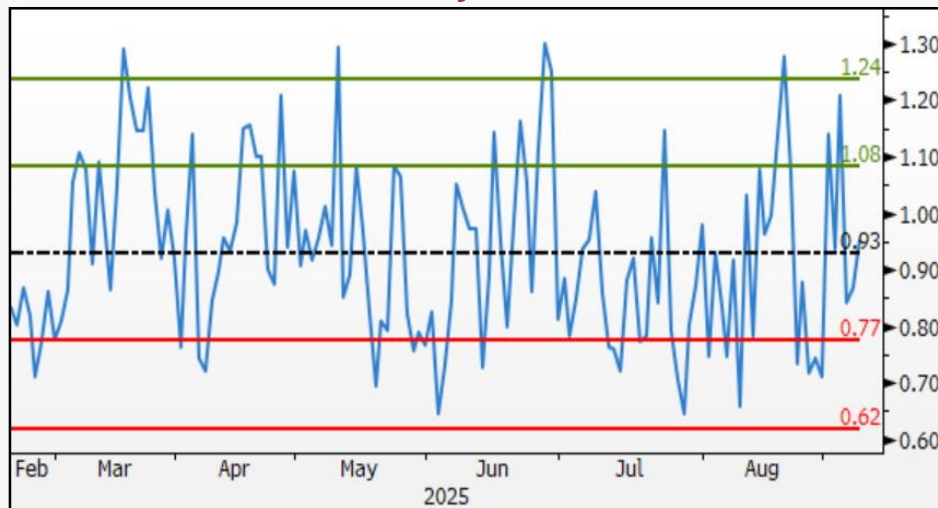
## Daily Net Open Interest Change



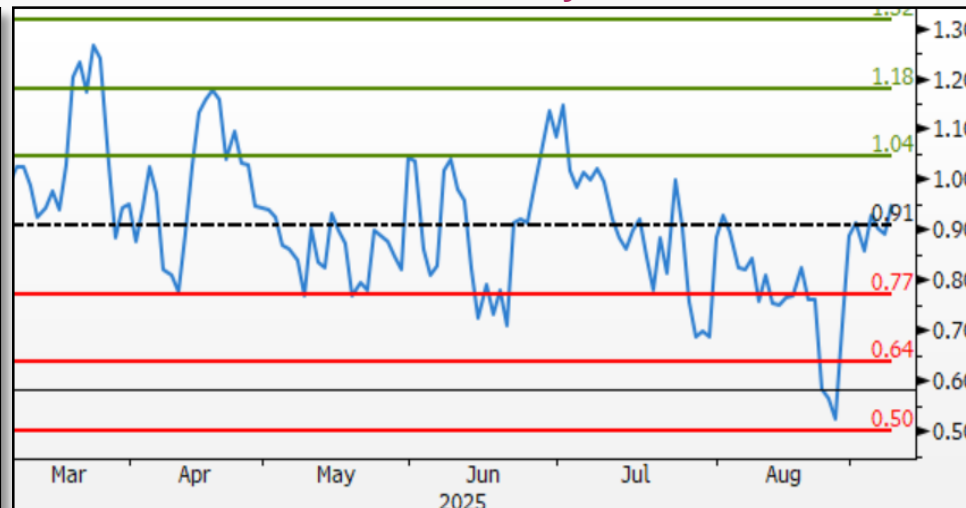
## DII and FII Daily Cash Market Flows



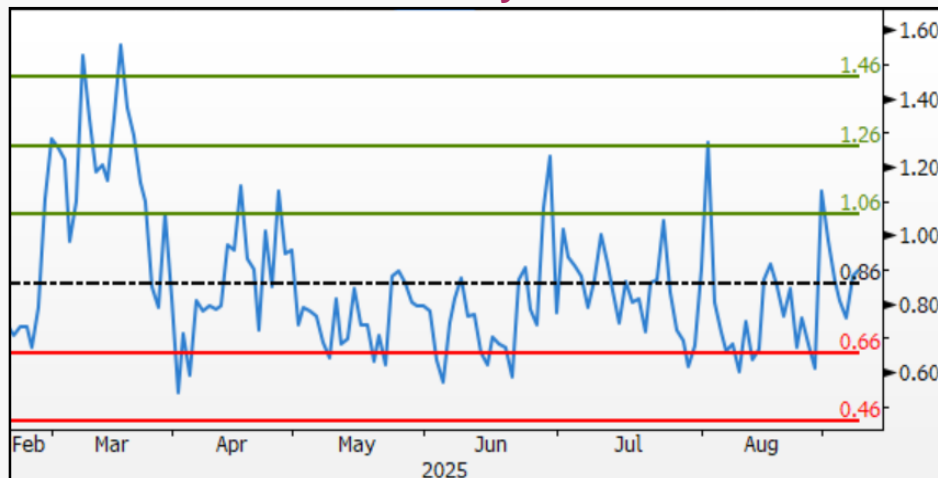
## Nifty



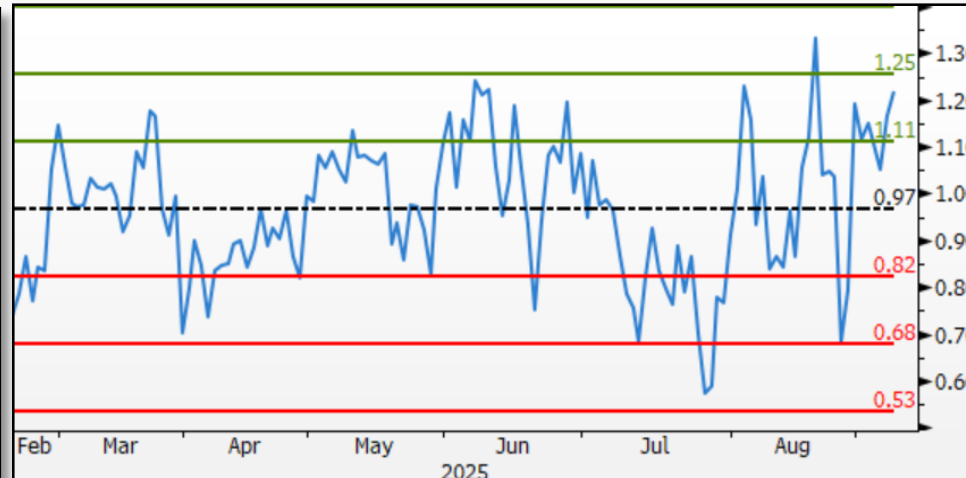
## Bank Nifty



## Fin Nifty

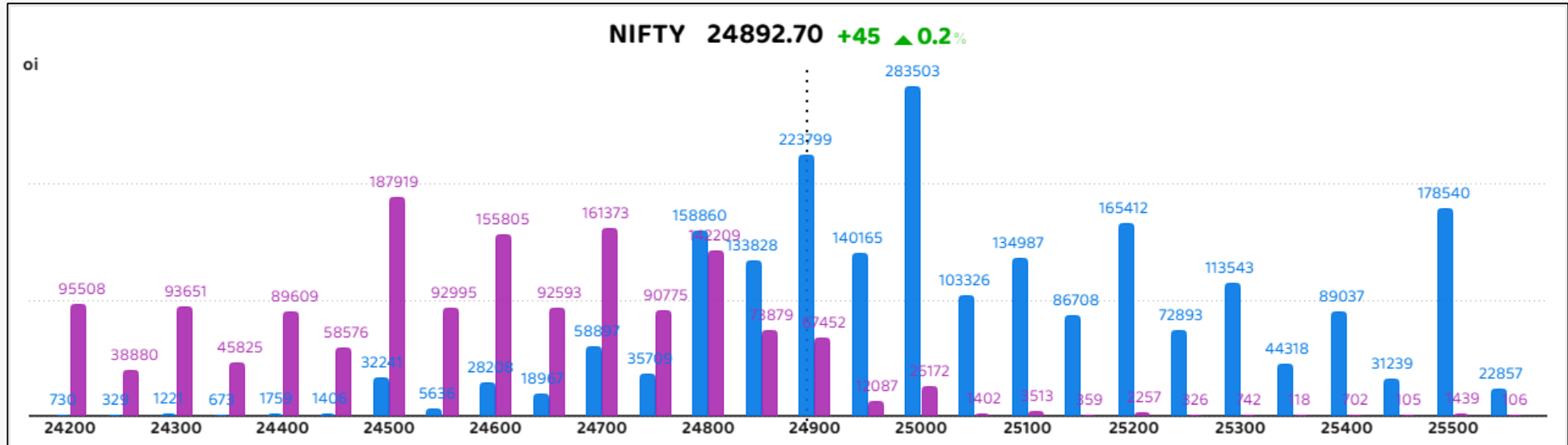


## Midcap Select Nifty



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

Call  Put 



For the Nifty, the 25,000 Call and the 24,500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 55,000 Call and the 54,000 Put saw the most amount of open interest.

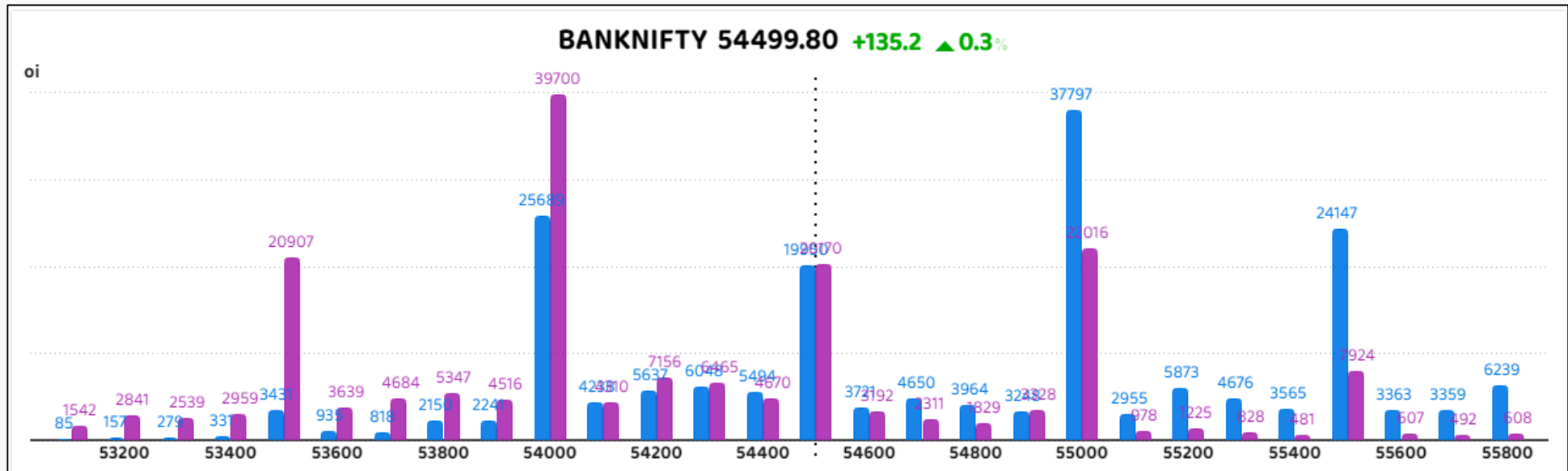
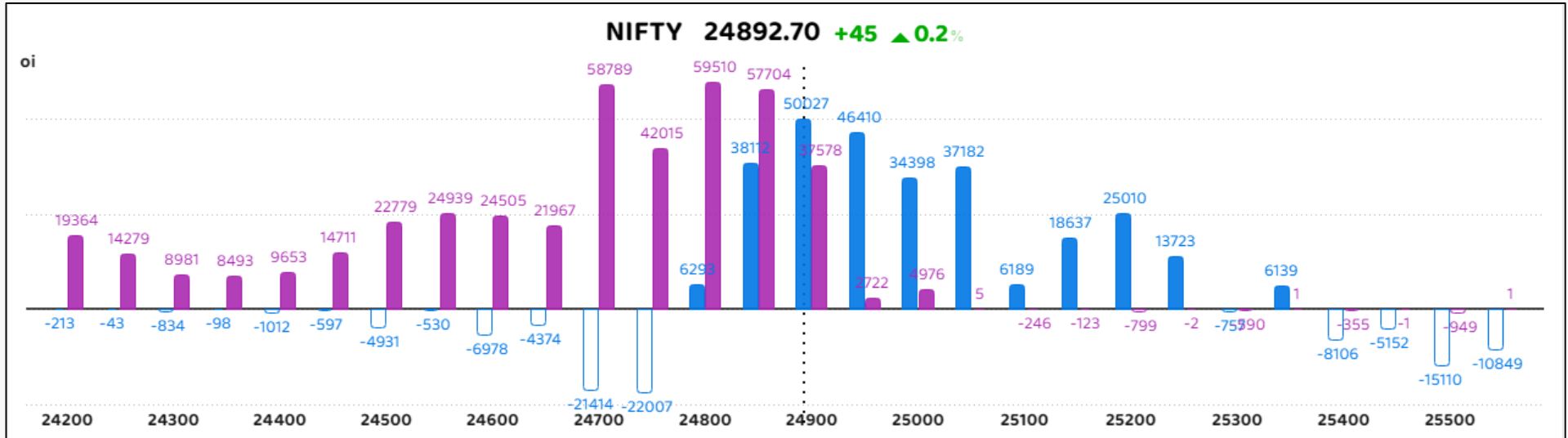


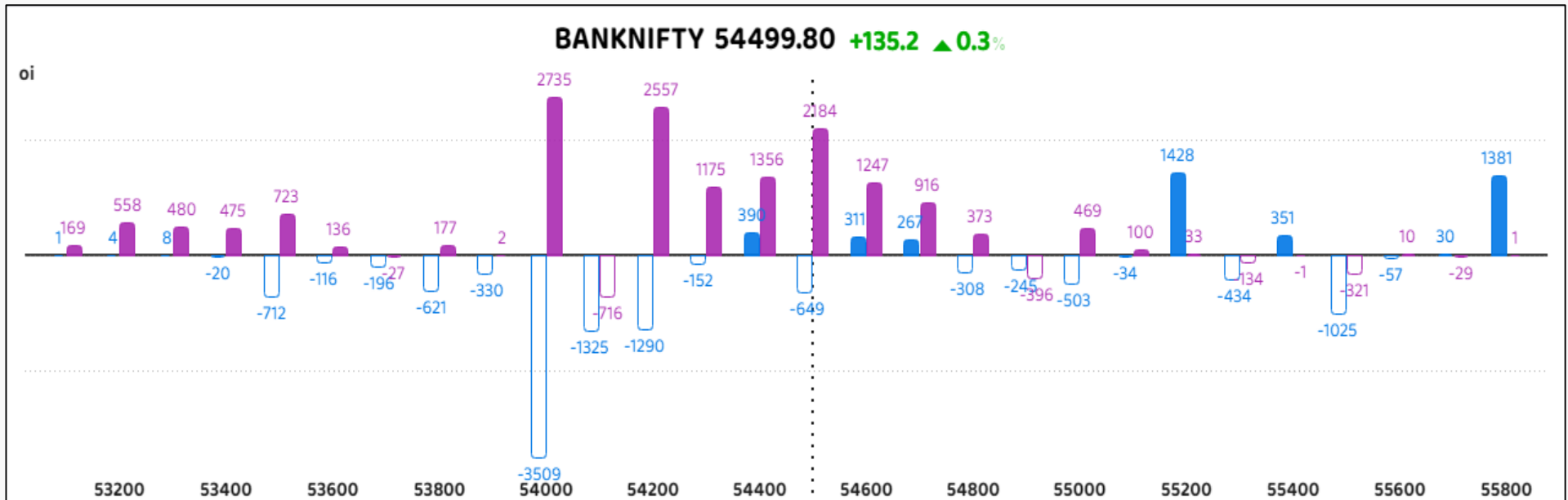
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,900 Call and the 24,800 Put



For the Bank Nifty, the biggest open interest changes were seen at the 54,000 Call & the 54,000 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
RAIL VIKAS NIGAM	332.2	0.9	41.8	50.3	25.1	66.1
SHREE CEMENT	30485	1.5	23.3	31.9	7.9	64.2
BAJAJ AUTO LTD	9433.5	3.8	23.6	36.4	2.1	62.5
BOSCH LTD	41355	1.1	22.4	36.2	2.1	59.5
ASTRAL LTD	1462	0.5	24.3	40.4	2.9	56.9

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
POWER FINANCE	395.15	0.2	23.8	51.5	23.8	0.0
DELHIVERY LTD	474.4	1.2	24.4	58.6	24.4	0.0
CDSL	1554.3	2.0	26.5	60.7	26.5	0.0
NBCC INDIA LTD	102.54	0.3	29.9	65.4	29.9	0.0
KFIN TECHNOLOGIES	1098.9	1.0	29.1	44.8	29.1	0.0

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
AMBER ENTERPRISE	7473	-4.1	38.2	45.0	29.5	84.4
RAIL VIKAS NIGAM	332.2	0.9	41.8	50.3	25.1	77.7
360 ONE WAM LTD	1040	0.2	31.7	46.8	22.7	60.3
PAGE INDUSTRIES	44280	0.0	25.2	39.9	13.0	60.0
APOLLO HOSPITALS	7786.5	-0.2	22.6	32.7	12.9	52.5

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
POWER FINANCE	395.15	0.2	23.8	51.5	23.8	0.0
DELHIVERY LTD	474.4	1.2	24.4	58.6	24.4	0.0
CDSL	1554.3	2.0	26.5	60.7	26.5	0.0
NBCC INDIA LTD	102.54	0.3	29.9	65.4	29.9	0.0
KFIN TECHNOLOGIES	1098.9	1.0	29.1	44.8	29.1	0.0

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
SONA BLW PRECISION	454.35	3.0	14929	3216	4.6
GRASIM INDS LTD	2804.1	0.0	6430	1386	4.6
RAIL VIKAS NIGAM	332.2	0.9	10656	2495	4.3
HAVELLS INDIA	1579.2	-0.2	8185	2030	4.0
ULTRATECH CEMENT	12664	0.5	16855	4579	3.7

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
SOLAR INDUSTRIES	13935	0.1	2673	3926	1.5
LTIMINDTREE LTD	5089	-2.0	4700	4934	1.0
MPHASIS LTD	2787.1	-0.4	4024	3829	1.0
AUROBINDO PHARMA	1040.2	-0.4	3943	3697	0.9
ICICI LOMBARD	1833	-0.4	1881	1698	0.9

## Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
PHOENIX MILLS	1529.70	0.8	3540	4058	87.2

## Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
MAHINDRA & MAHINDRA	3701.4	3.9	45589	45589	100.0
KAYNES TECHNOLOGY	7041.5	2.9	7271	7271	100.0
MAZAGON DOCK	2665	-0.2	8270	9557	86.5
RAIL VIKAS NIGAM	332.2	0.9	3898	4526	86.1

## Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
NO STOCK OPTION MET THE CONDITION MENTIONED IN THE FOOTNOTE					

## Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
KAYNES TECHNOLOGY	7041.5	2.9	19754	23683	83.4

### Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
HDFC LIFE	753.75	-0.8	15779	8871	1.8
CG POWER	746.35	1.4	8507	5453	1.6
INTERGLOBE AVIATION	5696.5	0.5	22368	14609	1.5
ICICI PRUDENTIAL	593.15	-0.6	4015	2648	1.5
DALMIA BHARAT LTD	2410	0.0	2330	1544	1.5

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
EICHER MOTORS	6815	3.6	16976	8902	1.9
MAHINDRA & MAHINDRA	3701.4	3.9	45589	24119	1.9
CG POWER AND IND	746.35	1.4	6175	3773	1.6
BHARAT FORGE CO	1202.8	5.8	7525	4842	1.6
TATA STEEL LTD	168.82	0.7	18819	12375	1.5

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
JSW STEEL LTD	1101.4	2.6	44611	15353	2.9
TATA MOTORS LTD	719.5	4.0	226976	92305	2.5
MAHINDRA & MAHINDRA	3701.4	3.9	162922	71549	2.3
EICHER MOTORS	6815	3.6	66131	33241	2.0
BAJAJ AUTO LTD	9433.5	3.8	121035	67074	1.8

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
BHARAT FORGE	1202.8	5.8	24991	5314	4.7
KAYNES TECHNOLOGY	7041.5	2.9	19754	7269	2.7
JSW STEEL LTD	1101.4	2.6	20400	7650	2.7
EICHER MOTORS	6815	3.6	37995	15098	2.5
STEEL AUTHORITY	131.45	1.7	7877	3231	2.4

## 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	2300	988800	-0.5%	2311	2600	924000	12.5%	ITC	410	10158400	0.6%	408	410	4451200	0.6%
ADANIPTS	1400	1364200	3.8%	1348	1400	1103425	3.8%	JIOFIN	320	7943000	2.9%	311	320	3811700	2.9%
APOLLOHOSP	8000	164500	2.7%	7787	7900	61000	1.5%	JSWSTEEL	1100	1117800	-0.1%	1101	1000	561600	-9.2%
ASIANPAINT	2600	1134000	2.7%	2531	2500	299250	-1.2%	KOTAKBANK	2000	1507200	2.6%	1950	1960	1020400	0.5%
AXISBANK	1100	3435625	4.2%	1056	1060	1566250	0.4%	LT	3600	1513050	2.0%	3530	3600	617225	2.0%
BAJAJ-AUTO	10000	215550	6.0%	9434	8800	96900	-6.7%	M&M	3600	1120000	-2.7%	3701	3500	1293800	-5.4%
BAJAJFINSV	2060	919500	2.6%	2008	1900	546500	-5.4%	MARUTI	15000	397250	-1.7%	15258	14000	355700	-8.2%
BAJFINANCE	1000	1447500	5.9%	944	900	1428000	-4.7%	NESTLEIND	1200	835000	1.0%	1188	1200	363000	1.0%
BEL	400	7911600	7.6%	372	370	4537200	-0.5%	NTPC	340	6642000	4.1%	327	330	2601000	1.0%
BHARTIARTL	2000	1343300	5.9%	1888	1900	922450	0.7%	ONGC	240	14145750	3.2%	233	235	3447000	1.1%
CIPLA	1600	1402125	3.8%	1541	1440	270000	-6.6%	POWERGRID	300	3296500	6.1%	283	280	1875300	-1.0%
COALINDIA	400	5027400	3.3%	387	450	2155950	16.3%	RELIANCE	1400	11209000	1.6%	1379	1400	5917000	1.6%
DRREDDY	1300	2583125	4.0%	1251	1100	558125	-12.0%	SBILIFE	1900	632625	6.7%	1781	1800	241500	1.1%
EICHERMOT	7000	325325	2.7%	6815	6300	421225	-7.6%	SBIN	820	6078750	1.4%	809	800	3789000	-1.1%
ETERNAL	330	10138925	0.1%	330	320	5936400	-2.9%	SHRIRAMFIN	600	1456950	0.5%	597	600	1004025	0.5%
GRASIM	2900	257750	3.4%	2804	2600	129500	-7.3%	SUNPHARMA	1600	1227100	1.2%	1581	1500	844900	-5.1%
HCLTECH	1500	1797600	6.9%	1403	1400	467600	-0.2%	TATACONSUM	1100	1361250	2.4%	1074	970	430650	-9.7%
HDFCBANK	1000	7568000	3.5%	966	950	3029400	-1.7%	TATAMOTORS	700	4780800	-2.7%	720	700	4178400	-2.7%
HDFCLIFE	800	4071100	6.1%	754	700	723800	-7.1%	TATASTEEL	170	13794000	0.7%	169	160	19321500	-5.2%
HEROMOTOCO	5400	346200	-0.8%	5443	5000	250950	-8.1%	TCS	3200	2128875	6.0%	3019	3100	927675	2.7%
HINDALCO	750	1807400	1.5%	739	700	1412600	-5.2%	TECHM	1580	1456200	8.2%	1461	1480	1423800	1.3%
HINDUNILVR	2700	1658400	2.9%	2624	2600	330000	-0.9%	TITAN	3700	371525	1.1%	3658	3600	253400	-1.6%
ICICIBANK	1400	2519300	-0.2%	1403	1400	2226700	-0.2%	TRENT	5600	651600	5.4%	5316	5400	186700	1.6%
INDUSINDBK	800	1621200	6.6%	751	720	1010800	-4.1%	ULTRACEMCO	13000	109600	2.7%	12664	12000	41800	-5.2%
INFY	1500	3303600	4.7%	1433	1440	2321600	0.5%	WIPRO	250	7380000	3.1%	243	240	4317000	-1.0%

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

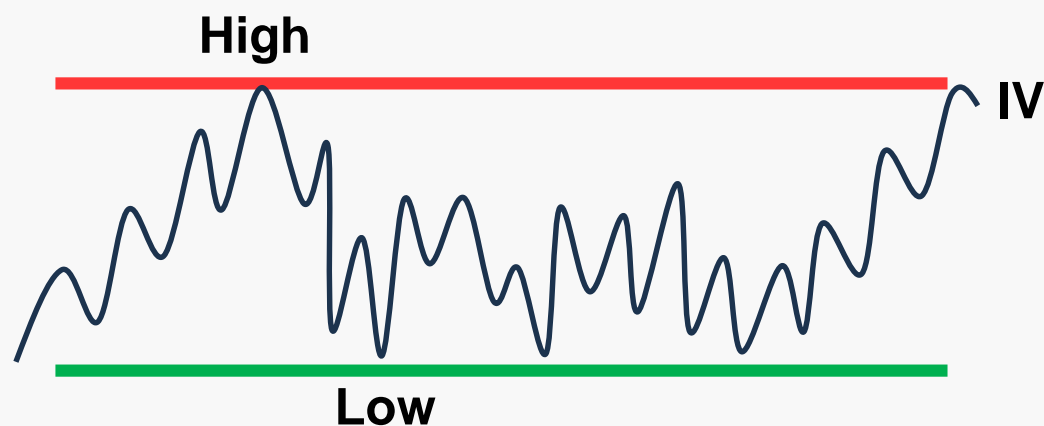
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

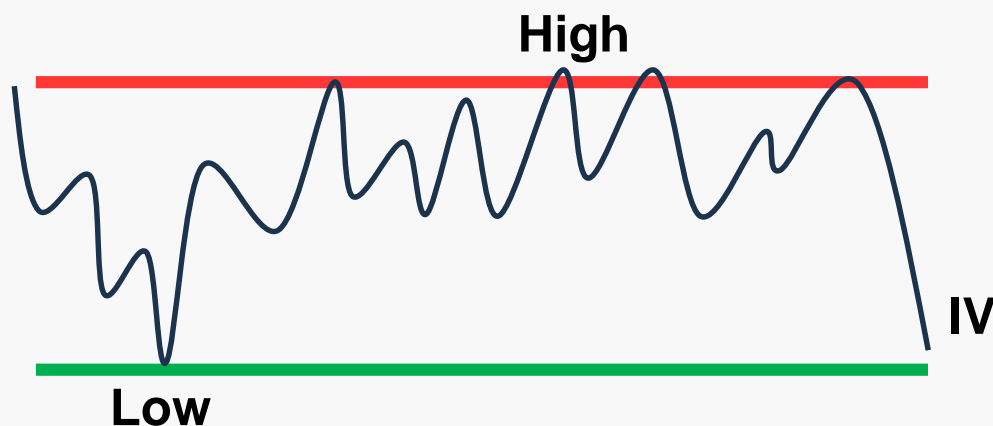
*\*ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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 (DII), 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

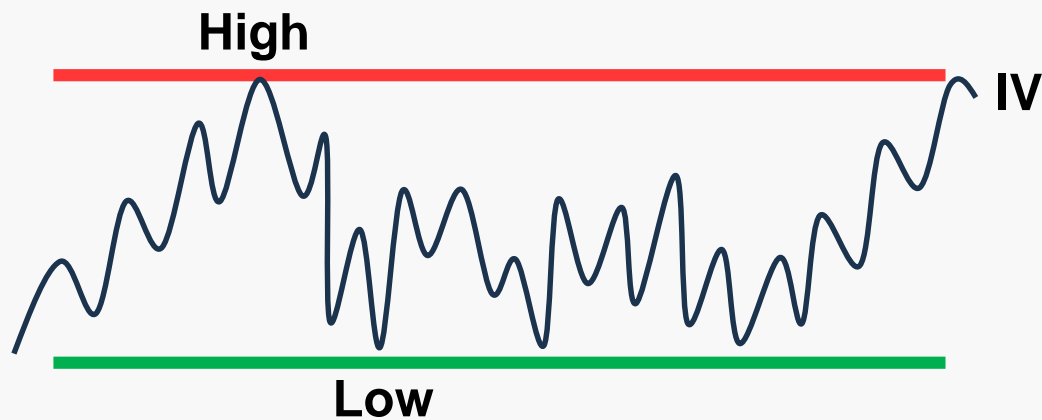


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

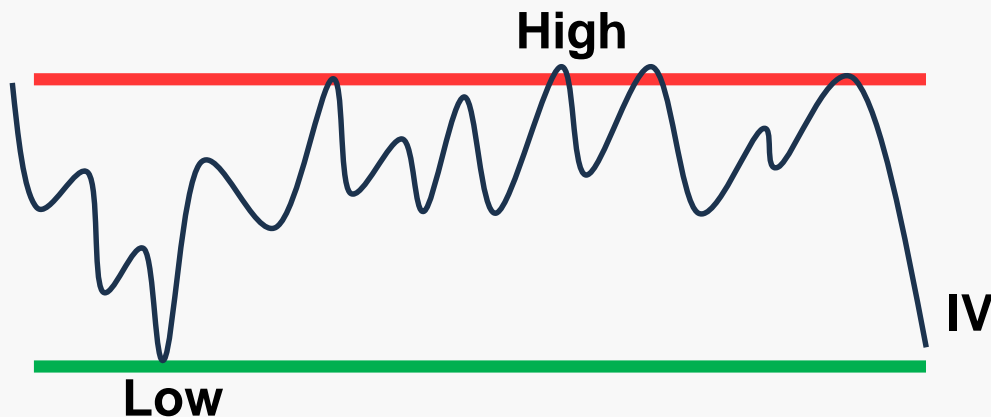


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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