



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	24,690	0.1%▼
Open Interest (OI)	2,10,82,575	21.6%▲
Change in OI (abs)	2,10,82,575	32,34,450▲
Premium / Discount (Abs)	50	117▲
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	54,550	0.2%▲
Open interest (OI)	26,17,650	17.4%▲
Change in OI (abs)	26,17,650	3,07,125▲
Premium / Discount (Abs)	89	287▲
Inference	Long Build Up	

Volatility Insights

	Value	Change
India VIX Index	11.06	0.31▼
Nifty ATM IV (%)	10.54	0.2▲
Bank Nifty ATM IV (%)	10.97	0.8▼
PCR (Nifty)	0.91	0.20▲
PCR (Bank Nifty)	1.00	0.13▲

The FII Long Ratio in Index Futures **drop** to 6 %, **down** from 16 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
INDIANB	64,93,000	3.4%	738.25	1.8%
BANKINDIA	6,19,11,200	2.6%	124.37	4.0%
UNITDSPR	1,40,55,200	1.0%	1336.3	1.4%
CHOLAFIN	1,41,87,500	0.5%	1580.7	0.4%
ABCAPITAL	6,16,03,200	0.5%	294.2	1.1%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
HFCL	9,94,84,800	1.6%	73.24	-1.9%
MANAPPURAM	2,67,93,000	0.8%	282.75	-0.4%
LICHSGFIN	2,92,61,000	0.8%	569.1	-0.4%
PATANJALI	3,15,17,100	0.6%	579	-3.6%
MCX	23,52,000	0.4%	7848	-1.9%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DALBHARAT	22,12,275	-35.4%	2243.1	0.2%
MARUTI	30,08,850	-33.7%	16109	0.1%
LICI	63,41,300	-27.4%	907.25	0.7%
BLUESTARCO	18,87,925	-21.3%	1886.4	0.8%
TATAMOTORS	6,70,43,200	-21.2%	683.3	1.1%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
360ONE	23,41,500	-35.5%	1025.6	-0.5%
OIL	90,69,200	-26.2%	416.5	-0.4%
AUBANK	2,09,38,000	-18.8%	736.75	-0.8%
CUMMINSIND	30,09,600	-17.6%	3949.7	-1.4%
PAGEIND	1,96,770	-16.5%	40815	-0.7%

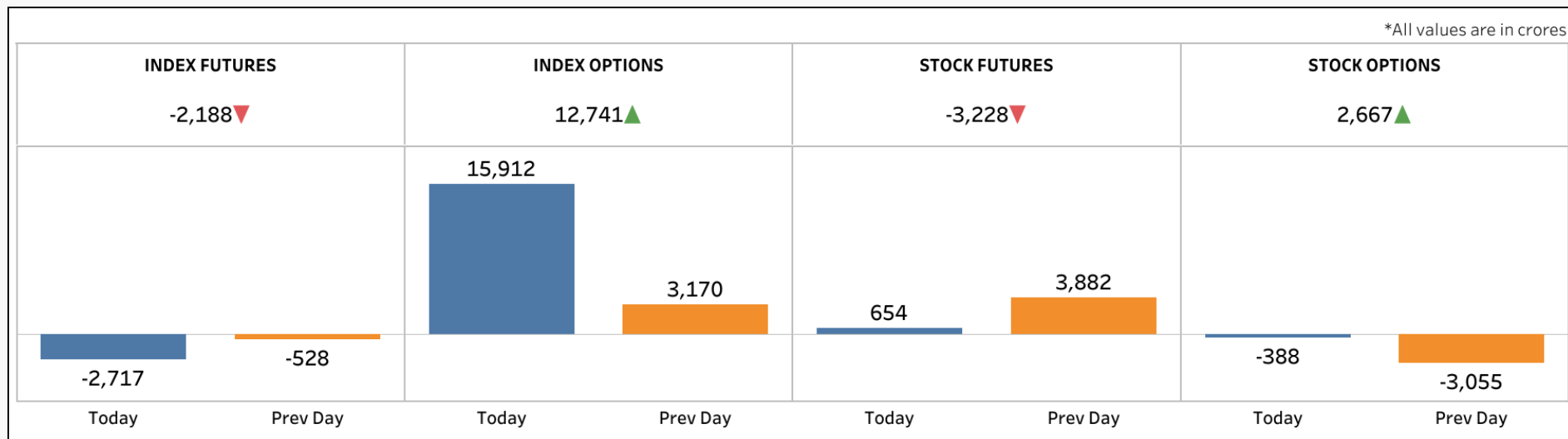
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

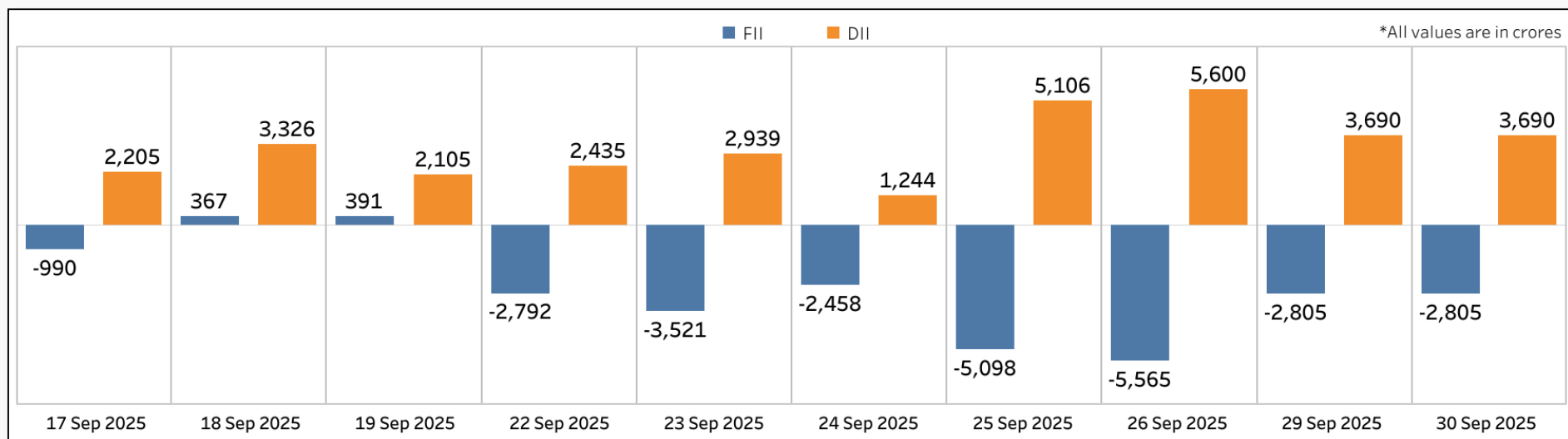
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-69,081 ▼	-3,884 ▼	-36,547 ▼	-69,067 ▼	7,800 ▲	3,008 ▲	0	2,737 ▲
31,346			57,563		2,383	0	
-37,735	-6,506	-50,420	-11,504	-3,900	-625		-37,801
	-2,622	-13,873		-11,700			-40,538
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-63,294	-176,090	271,509	1,326,760	9,463	50,143	25,645	-4,161,184
Today	Today	Today	Today	Today	Today	Today	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
150,575 ▲	1,472 ▲	148,741 ▲	23,041 ▲	-89,296 ▼	-596 ▼	-112,195 ▼	43,289 ▲
104,734		104,448				58,167	
			13,524		5,815		35,781
-45,841	-1,692	-44,293	-9,517	-63,100	6,411	-54,028	-7,508
	-3,164						
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
45,791	125,423	-390,861	2,315,737	8,040	524	93,708	518,687
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day

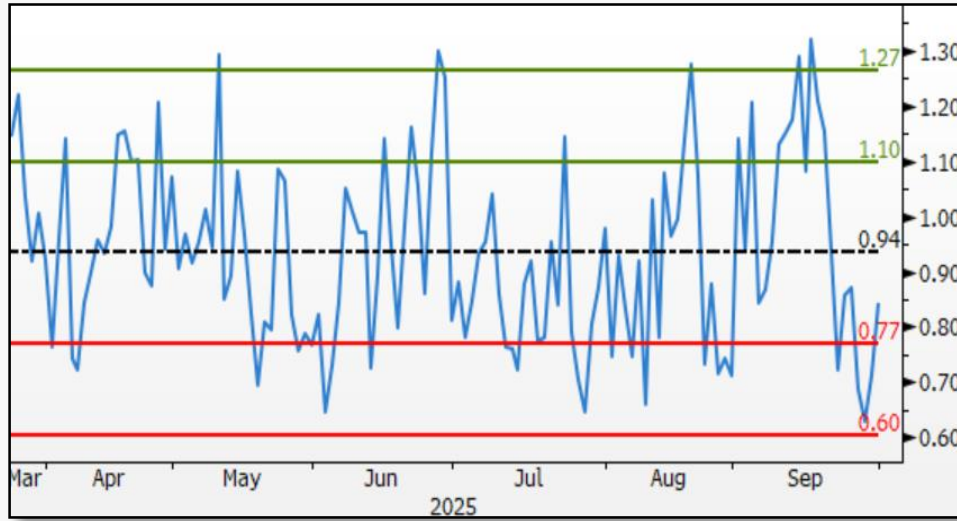
Daily Net Open Interest Change



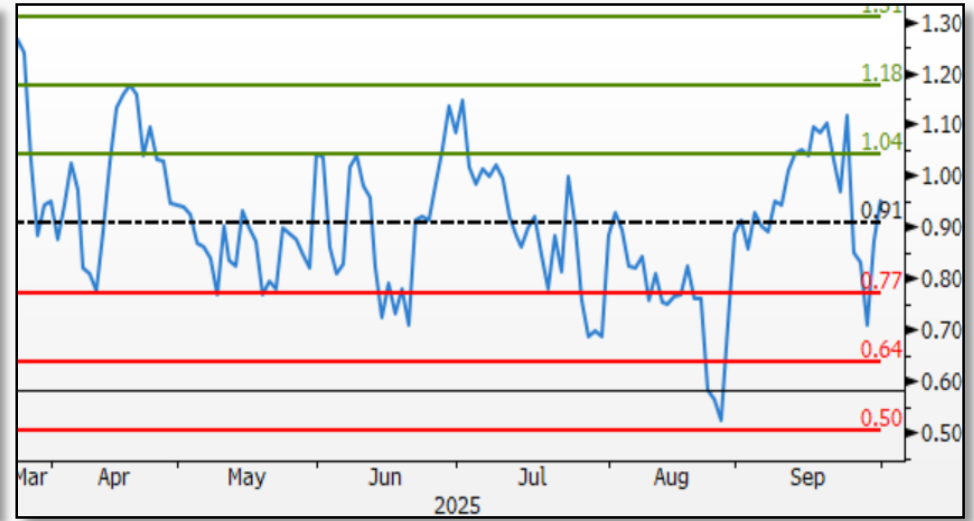
DII and FII Daily Cash Market Flows



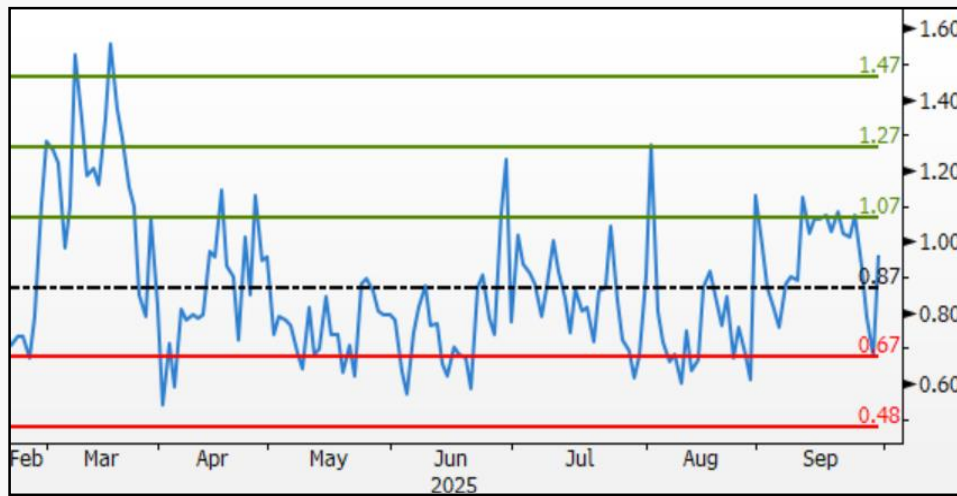
Nifty



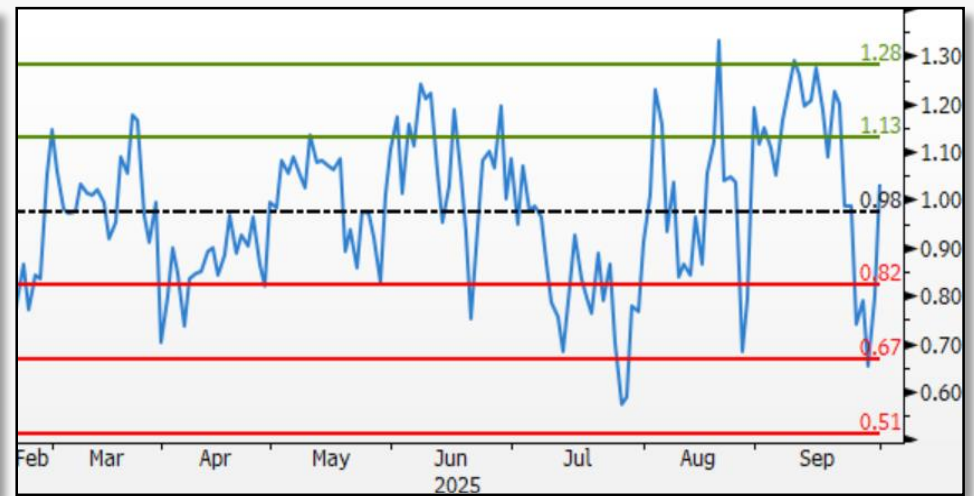
Bank Nifty



Fin Nifty



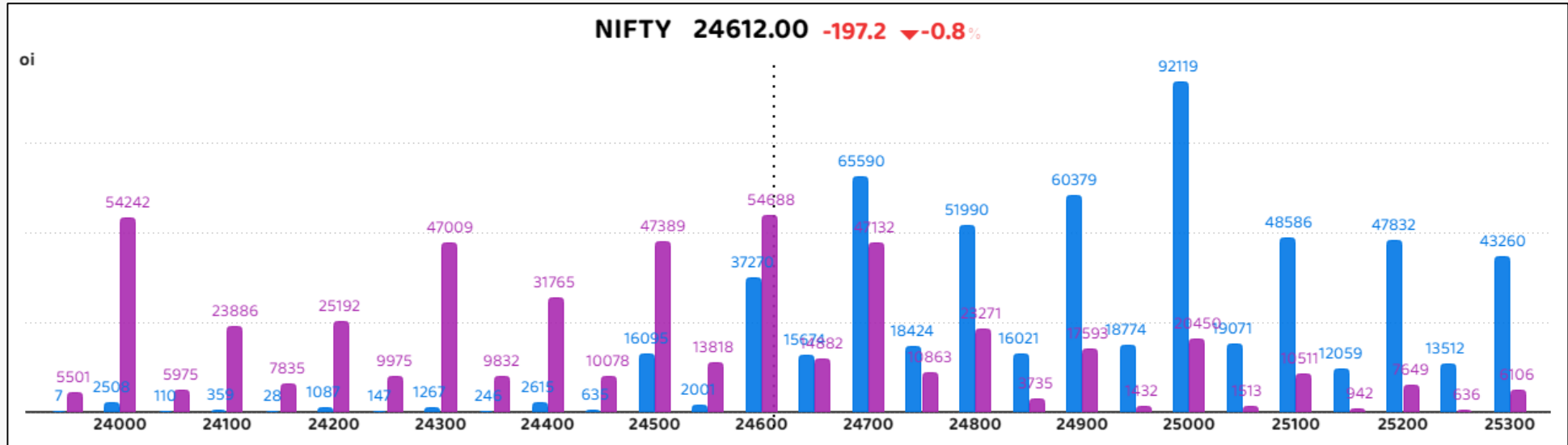
Midcap Select Nifty



On the day immediately post expiration, PCR values will differ due to the way open interest data for the expired series is treated for the PCR calculation

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

Call  Put 



For the Nifty, the 25,000 Call and the 24,600 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.

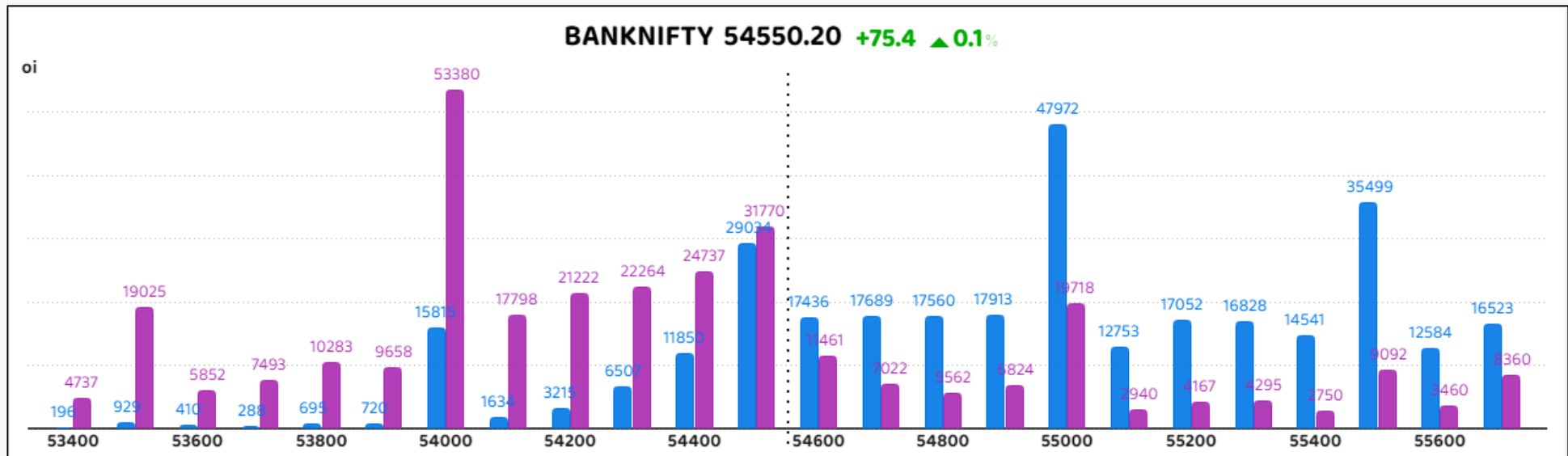
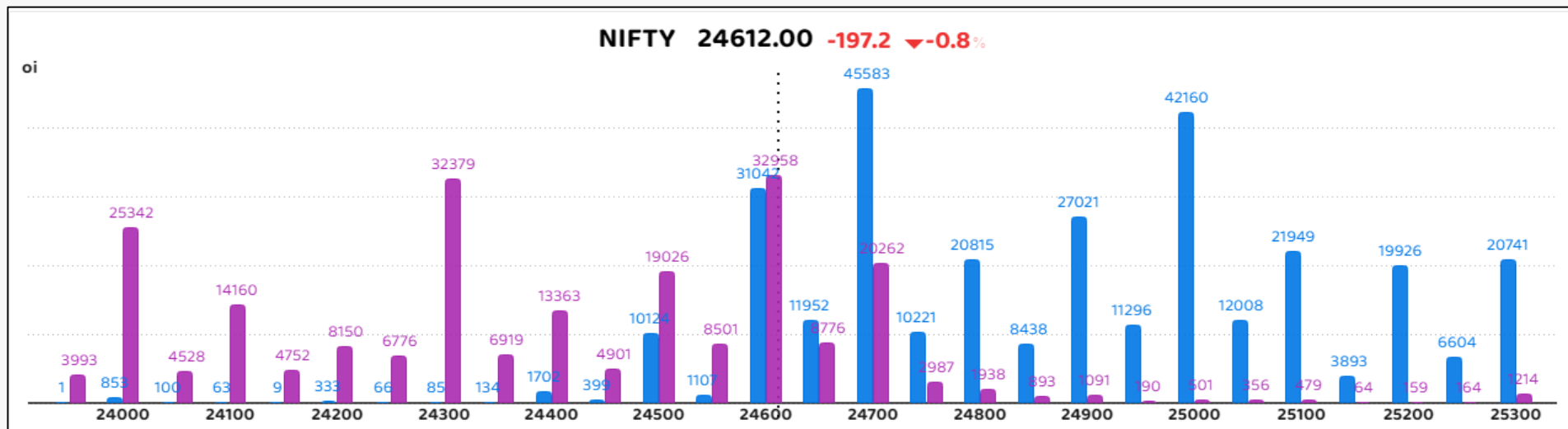


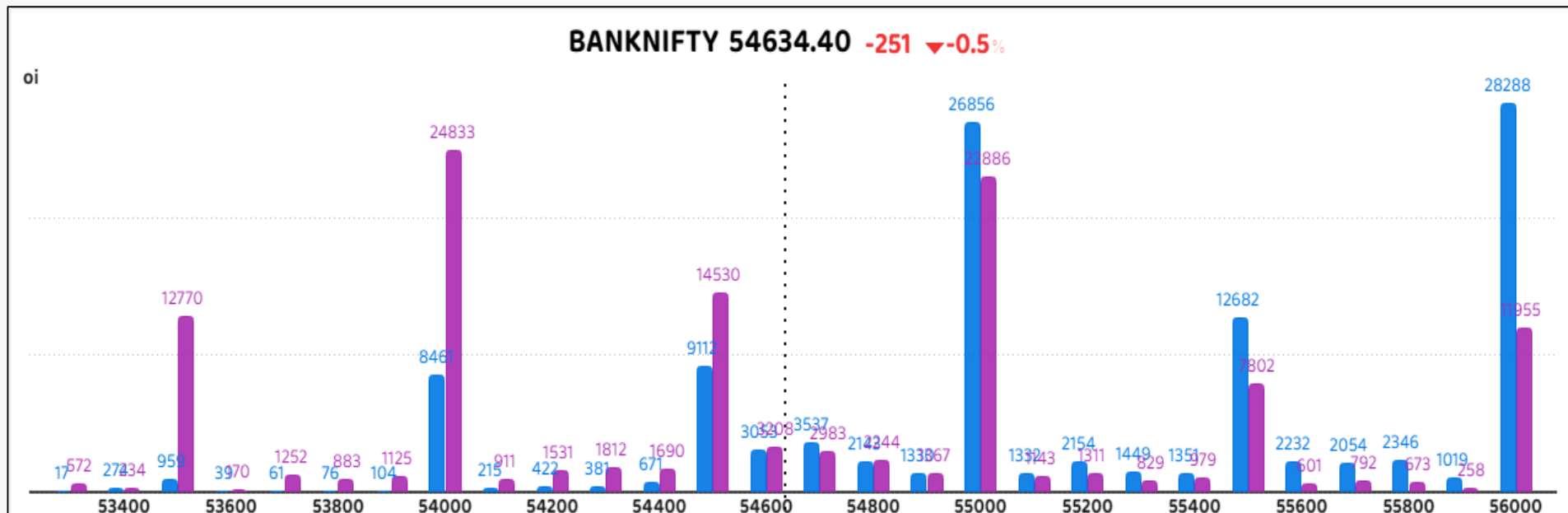
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,700 Call and the 24,600 Put



For the Bank Nifty, the biggest open interest changes were seen at the 56,000 Call & the 54,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INDIAN BANK	750.7	3.6	45.7	49.1	20.0	88.2
MARUTI SUZUKI	16029	0.3	22.4	29.9	0.4	74.7
BAJAJ AUTO LTD	8678.5	-0.4	26.9	36.4	2.1	72.2
ETERNAL LTD	325.5	0.2	36.3	53.0	1.7	67.6
PIRAMAL PHARMA	191.16	-0.3	36.0	40.1	27.3	67.5

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
RAIL VIKAS NIGAM	339.45	-0.6	22.9	50.3	22.9	0.0
YES BANK LTD	21.25	1.0	8.1	55.3	8.1	0.0
IRCTC	700.4	0.1	19.0	42.3	18.7	1.2
RELIANCE INDUSTRIES	1364	-0.6	2.2	34.1	1.4	2.4
POWER FINANCE	410.25	0.9	24.5	51.5	23.8	2.5

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INDIAN BANK	750.7	3.6	45.7	49.1	20.0	98.7
CHOLAMANDALAM	1610.8	1.2	38.2	47.2	23.4	94.5
COFORGE LTD	1591	2.5	39.8	60.2	18.1	89.8
TCS	2888.4	-0.3	23.8	57.2	1.3	88.7
RBL BANK LTD	277.25	-0.2	51.7	76.5	10.6	86.7

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
RAIL VIKAS NIGAM	339.45	-0.6	22.9	50.3	22.9	0.0
YES BANK LTD	21.25	1.0	8.1	55.3	8.1	0.0
RELIANCE INDUSTRIES	1364	-0.6	2.2	34.1	1.4	0.8
IRCTC	700.4	0.1	19.0	42.3	18.7	1.2
APOLLO HOSPITALS	7409	-0.5	16.5	32.7	12.9	1.8

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
HINDUSTAN ZINC	482.45	3.5	50148	11041	4.5
RAIL VIKAS NIGAM	339.45	-0.6	8225	1955	4.2
DELHIVERY LTD	450.05	2.3	4688	1216	3.9
IREDA	148.7	-0.1	4987	1405	3.6
COFORGE LTD	1591	2.5	26479	7775	3.4

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
CUMMINS INDIA	3926.5	-1.7	2642	7194	2.7
SUN PHARMA	1594.3	0.3	7464	9207	1.2
PATANJALI FOODS	575.8	-3.6	3393	4150	1.2
GLENMARK PHARMA	1952.7	-0.3	2365	2732	1.2
PETRONET LNG LTD	278.8	0.1	3134	3455	1.1

Call Open Interest Relative to Record High

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

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
NO STOCK OPTION MET THE CRITERIA MENTIONED IN THE FOOTNOTE					

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
NO STOCK OPTION MET THE CONDITION 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
TATA CHEMICALS	919.85	-0.6	11813	10061	1.2
KPIT TECHNOLOGIES	1097.7	-9.3	5610	5904	1.0
DIXON TECHNOLOGIES	16322	-2.1	16828	18021	0.9
CROMPTON GREAVES	291.3	-0.8	4596	5320	0.9
KALYAN JEWELLERS	454.3	1.3	9076	10528	0.9

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
KPIT TECHNOLOGIES	1097.7	-9.3	4556	3619	1.3
TATA CHEMICALS	919.85	-0.6	5123	4762	1.1
CROMPTON GREAVES	291.3	-0.8	3722	3560	1.0
CONTAINER CORP	525.8	0.5	3913	4296	0.9
TCS	2888.4	-0.3	50700	57236	0.9

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
HINDUSTAN ZINC	482.45	3.5	50148	20421	2.5
NATIONAL ALUMINIUM	213.87	4.9	23845	12670	1.9
BANK OF INDIA	123.41	3.9	7745	4518	1.7
KPIT TECHNOLOGIES	1097.7	-9.3	15724	10762	1.5
PUNJAB NATL BANK	112.83	3.0	29700	21207	1.4

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
KPIT TECHNOLOGIES	1097.7	-9.3	14359	4126	3.5
CUMMINS INDIA	3926.5	-1.7	7194	3058	2.4
HINDUSTAN ZINC	482.45	3.5	11041	5916	1.9
PATANJALI FOODS	575.8	-3.6	4150	2319	1.8
BANK OF INDIA	123.41	3.9	2413	1531	1.6

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	2700	716700	7.7%	2506	2500	503100	-0.2%	ITC	410	5377600	2.1%	402	400	3689600	-0.4%
ADANIPTS	1500	815100	6.9%	1404	1400	1103900	-0.2%	JIOFIN	320	7661000	9.1%	293	300	5736350	2.3%
APOLLOHOSP	8000	71000	8.0%	7409	7600	46250	2.6%	JSWSTEEL	1200	417825	5.0%	1143	1100	359775	-3.7%
ASIANPAINT	2500	667500	6.4%	2350	2400	345750	2.1%	KOTAKBANK	2000	758800	0.4%	1993	2000	779600	0.4%
AXISBANK	1200	2926250	6.0%	1132	1100	686250	-2.8%	LT	3800	717325	3.9%	3659	3600	427700	-1.6%
BAJAJ-AUTO	9000	173475	3.7%	8679	8500	65775	-2.1%	M&M	3500	724200	2.1%	3427	3400	339400	-0.8%
BAJAJFINSV	2100	273000	4.7%	2006	2000	196000	-0.3%	MARUTI	17000	371900	6.1%	16029	15000	220600	-6.4%
BAJFINANCE	1100	1520250	10.1%	999	1000	930750	0.1%	NESTLEIND	1200	259000	4.1%	1153	1180	230000	2.4%
BEL	420	6181650	4.0%	404	400	4263600	-1.0%	NTPC	350	2713500	2.8%	340	380	1830000	11.6%
BHARTIARTL	2000	817000	6.5%	1878	1900	674500	1.1%	ONGC	240	4776750	0.2%	240	240	4547250	0.2%
CIPLA	1600	227625	6.4%	1503	1500	325875	-0.2%	POWERGRID	300	3788600	7.0%	280	280	1953200	-0.1%
COALINDIA	400	2455650	2.6%	390	450	2084400	15.4%	RELIANCE	1400	4619500	2.6%	1364	1400	3007000	2.6%
DRREDDY	1300	299375	6.2%	1224	1200	396875	-1.9%	SBILIFE	1900	116250	6.1%	1791	1800	75375	0.5%
EICHERMOT	7500	171325	7.1%	7006	6500	135800	-7.2%	SBIN	900	4616250	3.2%	872	850	2463750	-2.6%
ETERNAL	320	14557275	-1.7%	326	320	7456875	-1.7%	SHRIRAMFIN	650	573375	5.5%	616	600	485100	-2.6%
GRASIM	2900	373000	5.2%	2757	2700	135250	-2.1%	SUNPHARMA	1600	442750	0.4%	1594	1600	497000	0.4%
HCLTECH	1500	695800	8.3%	1385	1400	534450	1.1%	TATACONSUM	1200	171600	6.3%	1129	1100	191400	-2.6%
HDFCBANK	1000	4678300	5.2%	951	950	3297800	-0.1%	TATAMOTORS	700	5980800	2.9%	680	700	3008000	2.9%
HDFCLIFE	800	1166000	5.8%	756	760	524700	0.5%	TATASTEEL	175	9498500	3.7%	169	165	6814500	-2.2%
HEROMOTOCO	6000	244950	9.6%	5473	5200	210900	-5.0%	TCS	3000	1764000	3.9%	2888	2900	1171275	0.4%
HINDALCO	800	1451800	5.0%	762	750	1246000	-1.6%	TECHM	1500	457200	7.1%	1400	1400	450000	0.0%
HINDUNILVR	2600	527700	3.4%	2514	2500	348900	-0.6%	TITAN	3500	476175	4.0%	3367	3400	335475	1.0%
ICICIBANK	1400	3382400	3.9%	1348	1400	2052400	3.9%	TRENT	5200	444400	11.2%	4678	4700	279500	0.5%
INDUSINDBK	800	1332100	8.8%	736	700	1628900	-4.8%	ULTRACEMCO	13000	72550	6.4%	12222	12000	33550	-1.8%
INFY	1500	2490400	4.0%	1442	1500	1890400	4.0%	WIPRO	250	4779000	4.4%	239	240	2580000	0.3%

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

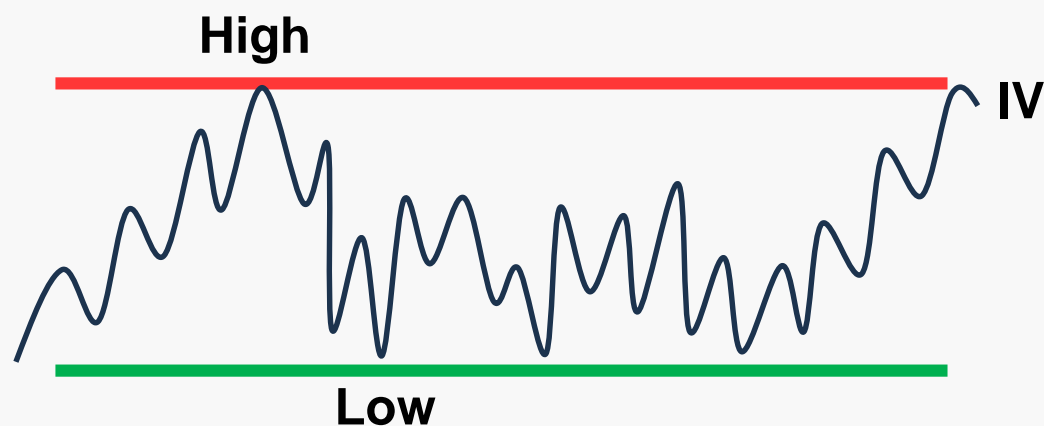
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

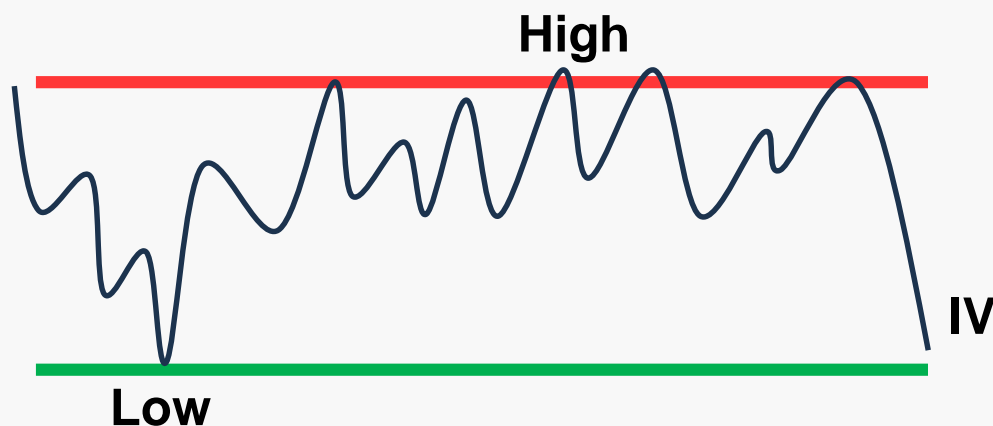
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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 (DII)s, 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

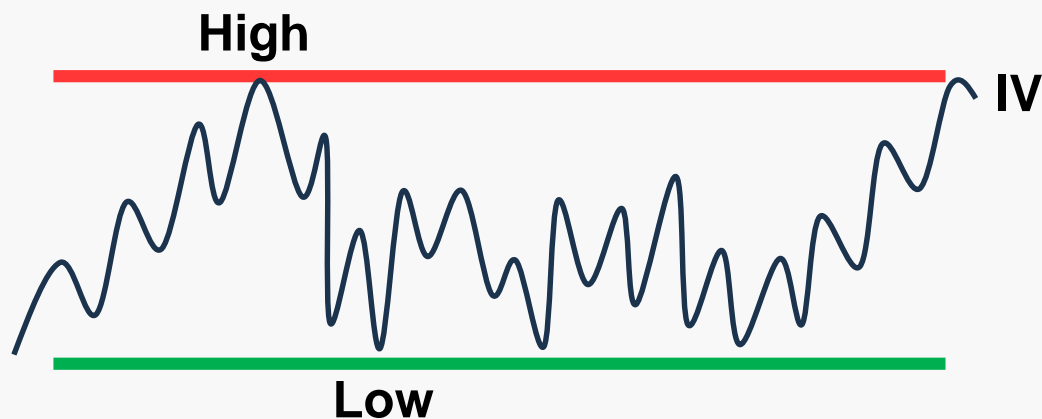


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

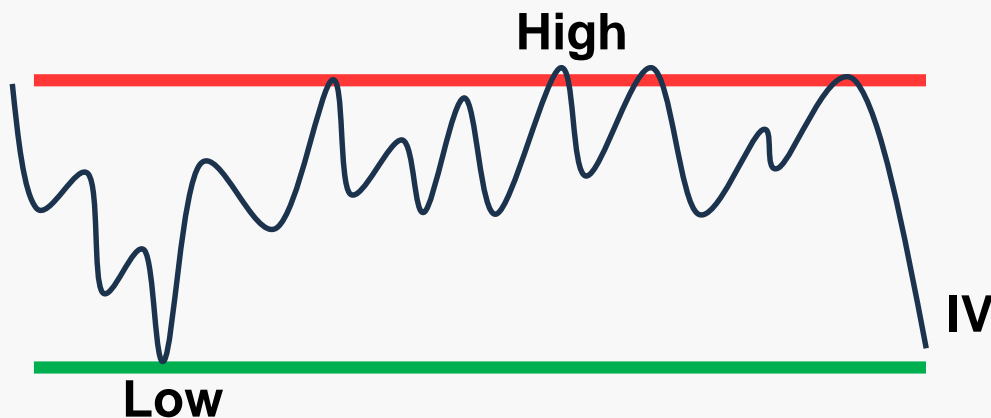


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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