



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	24,775	0.8% ▼
Open Interest (OI)	1,74,75,450	9.5% ▲
Change in OI (abs)	1,74,75,450	15,15,525 ▲
Premium / Discount (Abs)	91	60 ▲
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	55,104	0.7% ▼
Open interest (OI)	21,88,740	0.6% ▼
Change in OI (abs)	21,88,740	12,520 ▼
Premium / Discount (Abs)	226	132 ▲
Inference	Long Unwinding	

Volatility Insights

	Value	Change
India VIX Index	17.39	0.03 ▲
Nifty ATM IV (%)	15.66	0.1 ▼
Bank Nifty ATM IV (%)	16.56	0.1 ▼
PCR (Nifty)	0.69	0.13 ▼
PCR (Bank Nifty)	0.77	0.09 ▼

The Long Ratio for FII Index Futures **drop** at 37.4%, **down** from 42.3 % in the **last session**..

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
INOXWIND	2,43,16,500	7.8%	185.42	0.0%
ASHOKLEY	5,31,95,000	7.4%	238.87	0.5%
HINDALCO	5,17,90,200	5.6%	664.8	0.7%
DLF	4,16,75,700	5.0%	757.15	2.6%
MPHASIS	47,60,800	4.7%	2539.7	0.1%

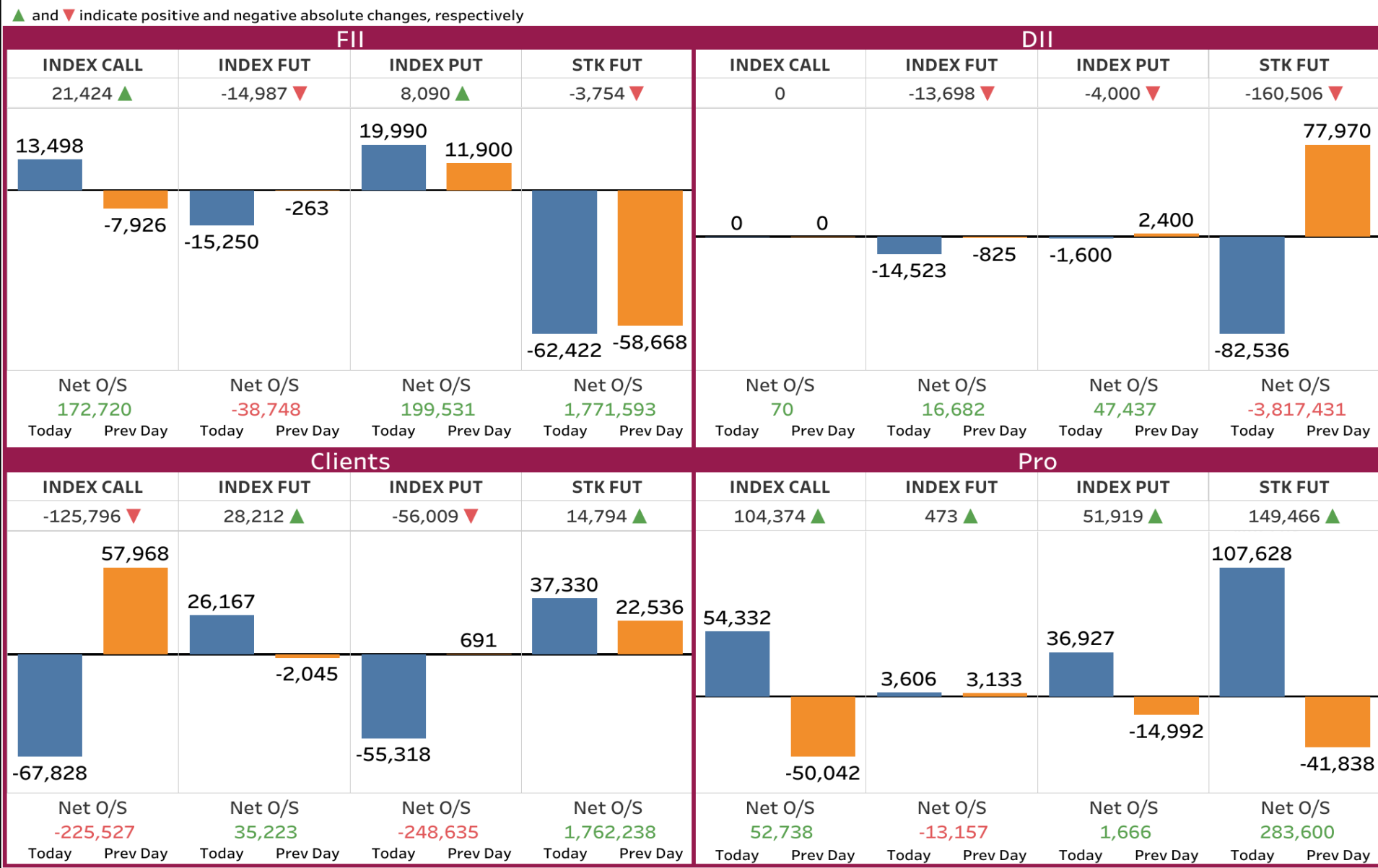
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
RBLBANK	8,02,20,600	9.6%	208.95	-1.6%
ASTRAL	69,24,358	8.2%	1366.7	-3.9%
PATANJALI	56,88,900	7.5%	1711.2	-1.3%
CIPLA	1,42,26,250	7.4%	1459.7	-2.4%
HINDZINC	69,01,650	7.2%	436.55	-2.8%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CESC	1,92,20,450	-11.7%	174.1	0.9%
BHEL	7,33,03,125	-3.2%	245.41	0.4%
DRREDDY	1,29,47,500	-2.6%	1227	0.6%
NYKAA	3,52,23,750	-2.0%	199.22	1.6%
SAIL	14,97,55,000	-0.9%	122.65	0.2%

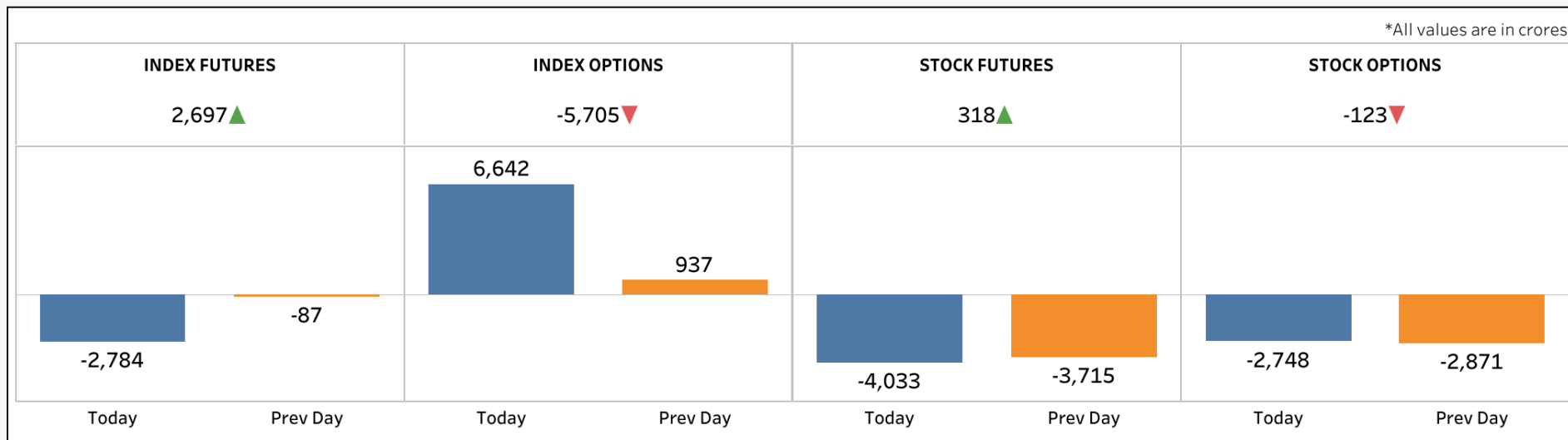
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ABFRL	2,79,99,400	-30.0%	277.4	-3.0%
PIIND	17,35,625	-13.0%	3742.7	-0.6%
APOLLOTYRE	51,15,300	-11.8%	489.75	-0.1%
ESCORTS	11,13,300	-4.6%	3514.2	-0.9%
DEEPAKNTR	8,46,600	-4.4%	2081.7	-2.0%

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

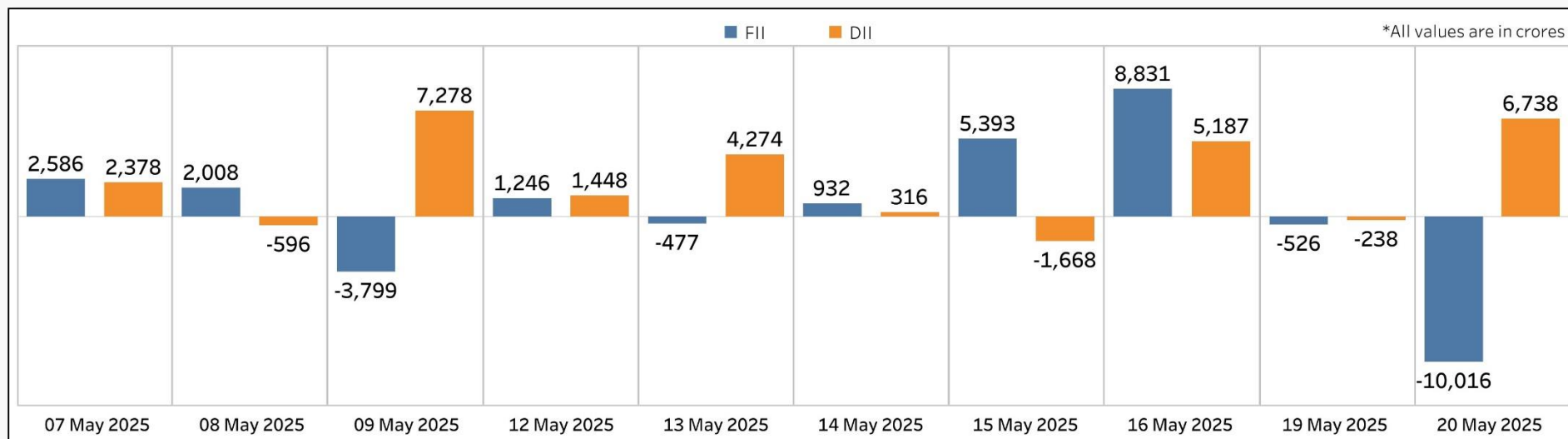
Open Interest Trends by Participant



Daily Net Open Interest Change

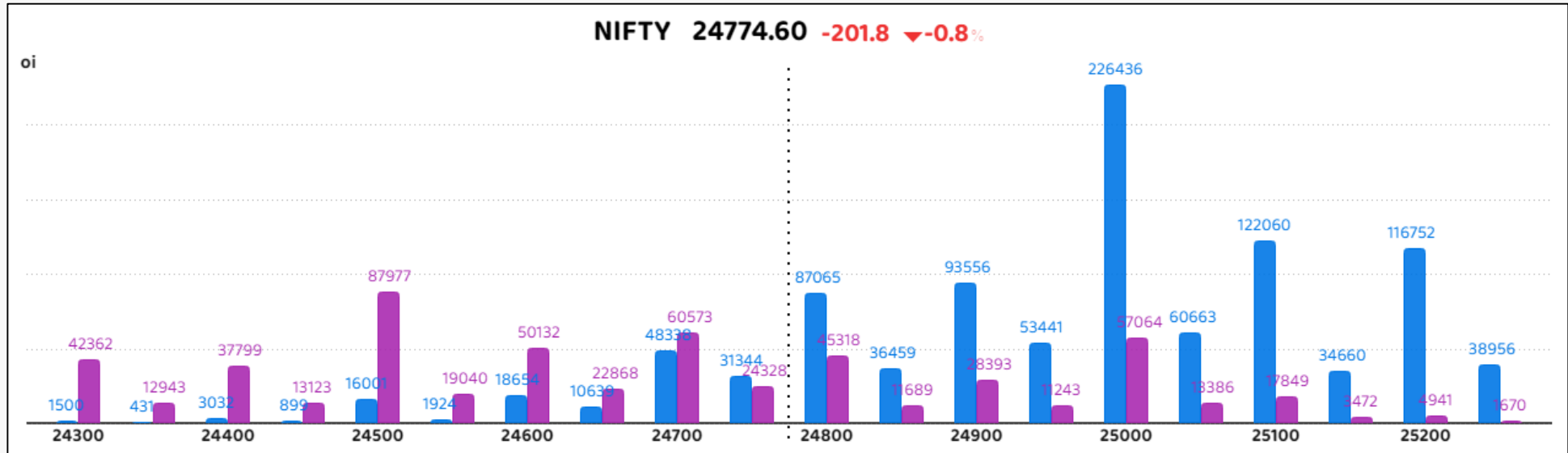


DII and FII Daily Cash Market Flows



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

Call  Put 



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

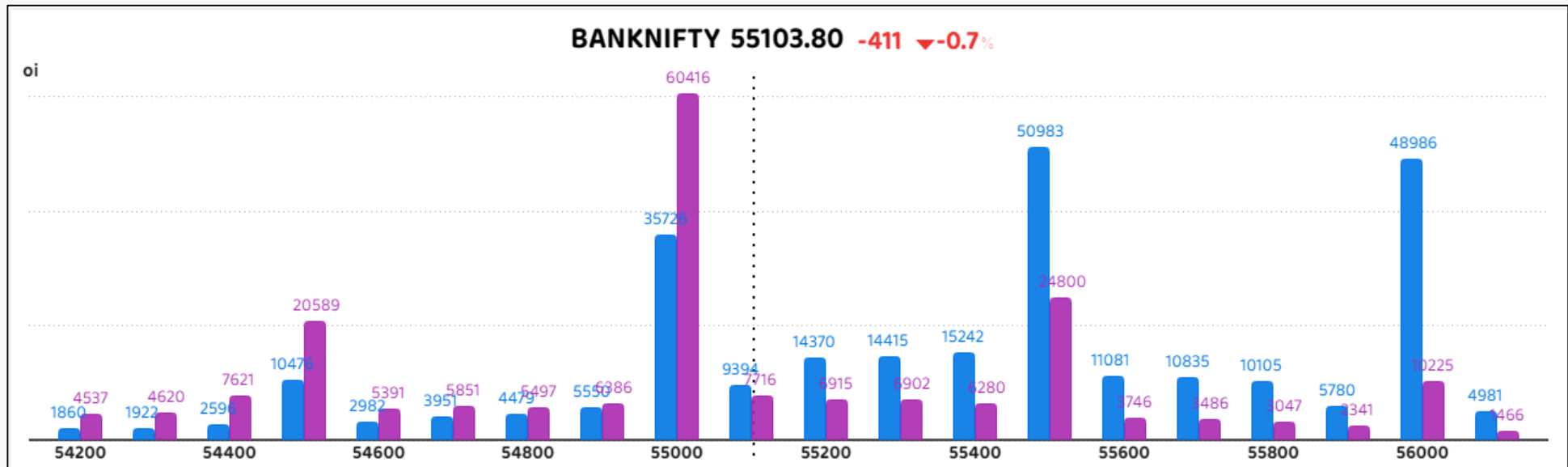
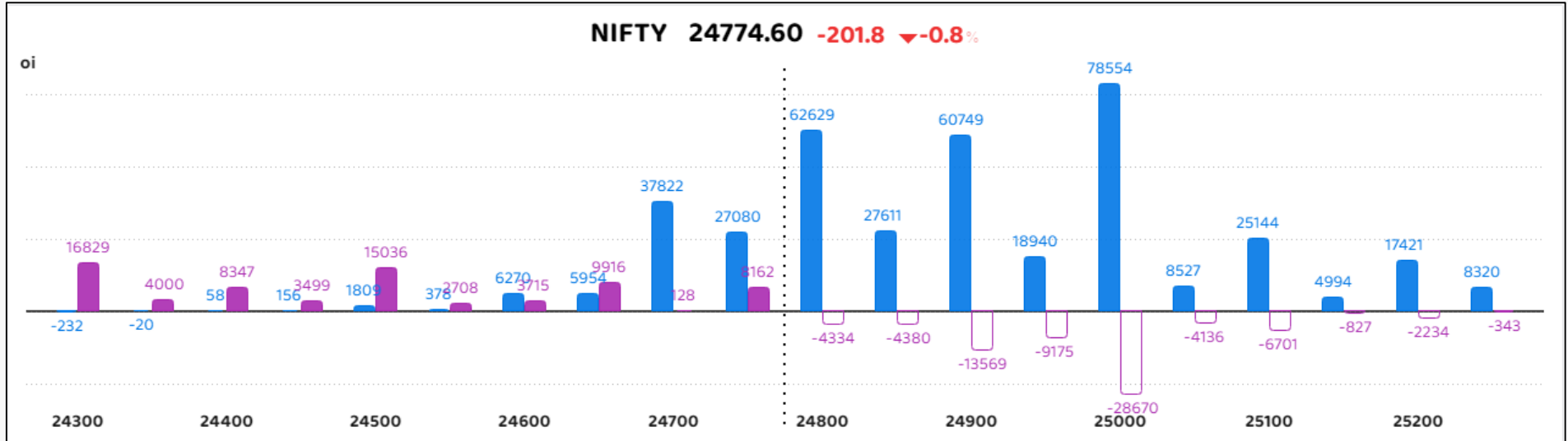


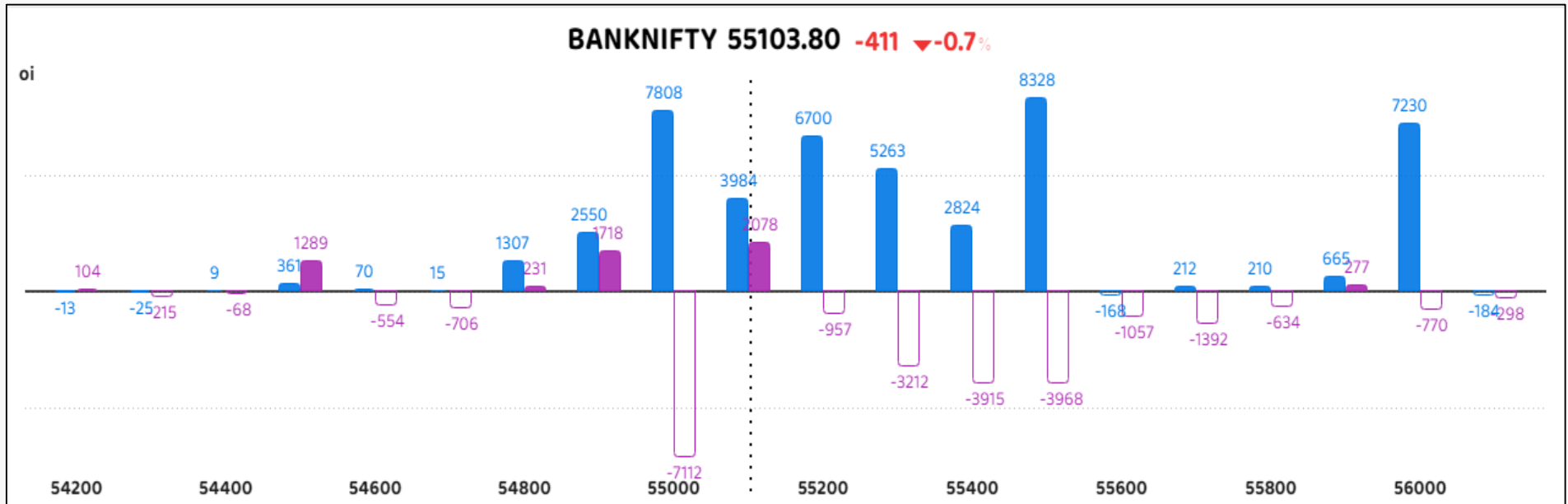
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,000 Call and the 25,000 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,500 Call & the 55,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
DEEPAK NITRITE	2077.70	-1.9	41.7	49.1	21.4	85.5
ASTRAL LTD	1365.2	-3.8	36.5	42.9	2.9	84.2
BAJAJ AUTO LTD	8565	-3.2	29.9	36.4	2.1	82.8
DIXON TECHNOLOGI	16566	0.0	43.5	53.0	1.8	82.7
PRESTIGE ESTATES	1419.6	-1.4	50.0	56.2	14.7	77.5

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
TITAGARH RAIL SY	888.7	-5.2	49.6	63.9	44.0	0.0
HINDUSTAN COPPER	225	-0.7	25.1	83.2	16.3	0.0
ADITYA BIRLA FAS	277.4	-3.0	16.2	66.6	9.9	0.9
ADANI GREEN ENER	984	-3.0	48.4	74.3	45.4	3.7
HDFC LIFE INSURA	747	-0.5	22.5	80.6	19.6	7.1

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
DEEPAK NITRITE	2077.7	-1.9	45.1	49.1	21.4	99.6
INFO EDGE	1438.5	-1.9	44.0	54.0	23.7	97.1
PI INDUSTRIES	3730.2	-0.8	36.5	46.7	18.3	95.4
ASTRAL LTD	1365.2	-3.8	36.5	42.9	2.9	93.5
AUROBINDO PHARMA	1191.8	-1.2	37.9	53.8	22.4	92.2

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
TITAGARH RAIL SY	888.7	-5.2	35.7	63.9	35.7	0.0
HINDUSTAN COPPER	225.03	-0.7	14.5	83.2	14.5	0.0
ADITYA BIRLA FAS	277.45	-3.0	10.4	66.6	9.9	0.5
MANAPPURAM FINAN	228.11	-0.2	8.6	64.2	2.7	1.2
ADANI GREEN ENER	983.95	-3.0	46.4	74.3	45.4	4.7

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	20.82	-1.8	16667	4020	4.2
TATA CHEMICALS	863.1	-0.6	23593	5918	4.0
CYIENT LTD	1290.2	-0.6	5408	1496	3.6
UPL LTD	628.7	-2.6	22918	6531	3.5
TORRENT POWER LT	1390.4	-2.4	15776	4627	3.4

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
BIRLASOFT LTD	422.65	-0.5	7969	21421	2.7
AARTI INDUS LTD	472.2	-3.0	11815	15383	1.3
TITAN CO LTD	3580.6	-1.0	13328	14907	1.1
AUROBINDO PHARMA	1191.8	-1.2	8746	9605	1.1
IIFL FINANCE LTD	406.7	-1.5	1551	1679	1.1

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
INDIAN BANK	610.75	-0.1	4284	4284	100.0
SOLAR INDUSTRIES	13489	-1.6	5335	5335	100.0
TORRENT POWER LT	1390.4	-2.4	4628	4628	100.0
MUTHOOT FINANCE	2030.7	-2.6	31088	31088	100.0
VARUN BEVERAGES	480.3	-2.9	28020	28020	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
INDIAN BANK	610.75	-0.1	2678	2678	100.0
DLF LTD	753.5	2.1	20226	20226	100.0
INDIAN RAILWAY F	136.71	-3.4	11314	11314	100.0
SOLAR INDUSTRIES	13489	-1.6	2837	2837	100.0
TATA TECHNOLOGIE	743.75	-2.1	7792	7792	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
DLF LTD	753.5	2.1	284675	284675	100.0
SOLAR INDUSTRIES	13489	-1.6	18792	18792	100.0
COAL INDIA LTD	408.1	1.3	176127	185679	94.9
BHARAT ELECTRON	363.8	0.0	162041	200004	81.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
DLF LTD	753.5	2.1	130402	130402	100.0
SOLAR INDUSTRIES	13489	-1.6	10219	10219	100.0
BHARAT ELECTRON	363.8	0.0	109584	109584	100.0
MAX HEALTHCARE I	1164.7	-2.0	16215	18976	85.5

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
TORRENT POWER LT	1390.4	-2.4	4628	1583	2.9
SOLAR INDUSTRIES	13489	-1.6	5335	1831	2.9
PATANJALI FOODS	1706.8	-1.5	12599	4359	2.9
MUTHOOT FINANCE	2030.7	-2.6	31088	10917	2.8
PI INDUSTRIES	3730.2	-0.8	7784	3022	2.6

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
SOLAR INDUSTRIES	13489	-1.6	2837	1177	2.4
PI INDUSTRIES	3730.2	-0.8	4849	2124	2.3
DIVI LABS LTD	6452.5	-1.9	14698	7016	2.1
DLF LTD	753.5	2.1	20226	9962	2.0
SHREE CEMENT	31525	-0.2	2856	1428	2.0

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
DLF LTD	753.5	2.1	284675	36869	7.7
PI INDUSTRIES	3730.2	-0.8	52557	8314	6.3
ZYDUS LIFESCIENC	883.3	-3.1	34961	5972	5.9
COAL INDIA LTD	408.1	1.3	176127	36804	4.8
HINDALCO INDS	662.75	0.7	76989	17259	4.5

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
PI INDUSTRIES	3730.2	-0.8	28517	4066	7.0
DLF LTD	753.5	2.1	130402	19462	6.7
ZYDUS LIFESCIENC	883.3	-3.1	18608	3403	5.5
BIRLASOFT LTD	422.65	-0.5	21421	5722	3.7
BHARAT ELECTRON	363.8	0.0	109584	29918	3.7

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	1920900	3.9%	2502	2600	1690800	3.9%	ITC	440	6676800	1.2%	435	430	4739200	-1.1%
ADANIPTS	1400	1790000	1.1%	1385	1300	764800	-6.1%	JIOFIN	300	6585150	10.5%	271	250	3823050	-7.9%
APOLLOHOSP	7200	173500	4.2%	6912	6150	89500	-11.0%	JSWSTEEL	1100	912600	8.6%	1013	950	948375	-6.2%
ASIANPAINT	2500	1297400	8.9%	2296	2300	488800	0.2%	KOTAKBANK	2200	1675200	5.3%	2090	2000	636400	-4.3%
AXISBANK	1220	3251875	2.0%	1196	1200	1380000	0.4%	LT	3500	883050	-1.9%	3568	3600	537300	0.9%
BAJAJ-AUTO	9000	196650	5.1%	8565	8000	106200	-6.6%	M&M	3200	1309875	4.5%	3064	3000	479675	-2.1%
BAJAJFINSV	2100	2696000	4.7%	2005	2000	624000	-0.3%	MARUTI	13000	391100	2.9%	12638	12000	259300	-5.0%
BAJFINANCE	10000	819500	10.1%	9079	9000	552750	-0.9%	NESTLEIND	2500	745200	6.0%	2359	2360	112400	0.1%
BEL	370	15883050	1.7%	364	350	8569950	-3.8%	NTPC	370	11092500	8.0%	343	345	2475000	0.7%
BHARTIARTL	1900	5637775	5.0%	1809	1800	1583650	-0.5%	ONGC	250	11039875	0.3%	249	240	4408250	-3.7%
CIPLA	1600	1904500	10.0%	1454	1300	442650	-10.6%	POWERGRID	310	4636800	4.1%	298	300	2158200	0.7%
COALINDIA	420	4280850	2.9%	408	400	2953650	-2.0%	RELIANCE	1450	7377000	1.8%	1425	1400	4409500	-1.7%
DRREDDY	1240	1843750	1.3%	1224	1150	798125	-6.1%	SBILIFE	1780	1653000	1.3%	1758	1720	421875	-2.2%
EICHERMOT	5600	381500	3.9%	5388	4500	135625	-16.5%	SBIN	800	14737500	1.8%	786	800	5016000	1.8%
ETERNAL	240	9982000	5.1%	228	230	5826000	0.8%	SHRIRAMFIN	700	2144250	6.3%	658	600	1082250	-8.9%
GRASIM	3120	319250	14.7%	2721	2340	128000	-14.0%	SUNPHARMA	1900	2113300	11.3%	1708	1700	678300	-0.5%
HCLTECH	1700	1491350	3.8%	1638	1200	737450	-26.8%	TATACONSUM	1200	1403112	6.3%	1129	1100	425904	-2.5%
HDFCBANK	2000	5682600	4.4%	1915	1800	2196700	-6.0%	TATAMOTORS	800	7191800	11.3%	719	700	3928100	-2.6%
HDFCLIFE	760	2156000	1.7%	747	720	1592800	-3.6%	TATASTEEL	160	26444000	0.8%	159	140	12380500	-11.8%
HEROMOTOCO	4500	489150	6.1%	4242	3900	231900	-8.1%	TCS	3600	1108450	2.9%	3498	3400	548275	-2.8%
HINDALCO	670	3546200	1.1%	663	650	1510600	-1.9%	TECHM	1600	863400	1.5%	1576	1500	503400	-4.8%
HINDUNILVR	2500	1412700	6.8%	2341	2400	484800	2.5%	TITAN	3500	316050	-2.3%	3581	3500	365575	-2.3%
ICICIBANK	1460	4461800	1.5%	1438	1400	2113300	-2.7%	TRENT	6000	496400	10.1%	5450	5200	244600	-4.6%
INDUSINDBK	850	3353500	8.7%	782	700	2521000	-10.5%	ULTRACEMCO	13000	304550	11.1%	11697	10000	89250	-14.5%
INFY	1600	3650800	2.5%	1561	1500	1388000	-3.9%	WIPRO	300	10722000	20.1%	250	250	3252000	0.1%

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

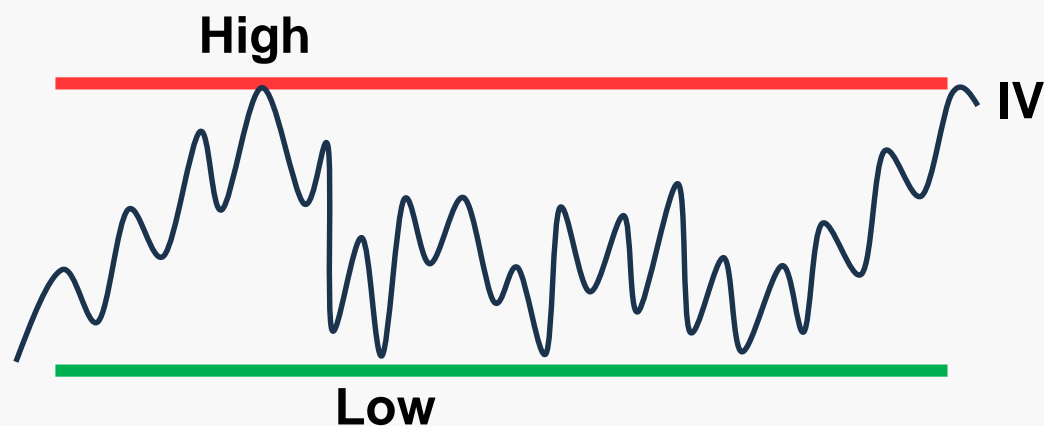
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

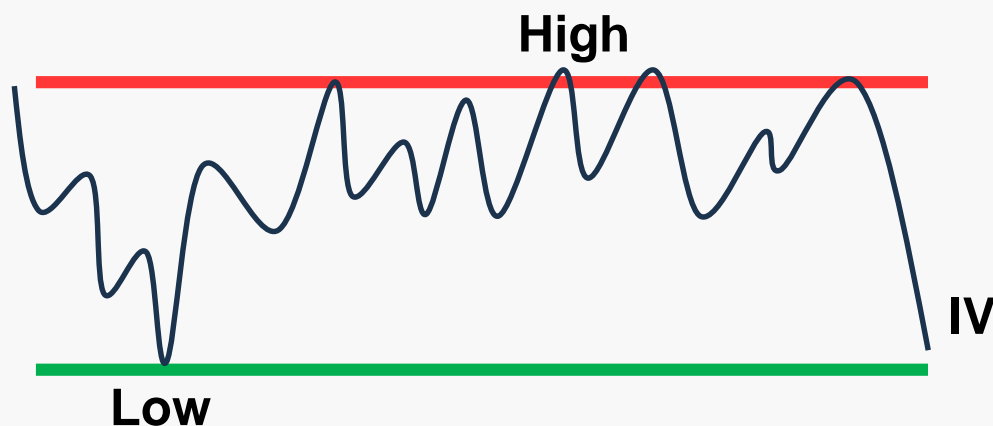
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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 (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, 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

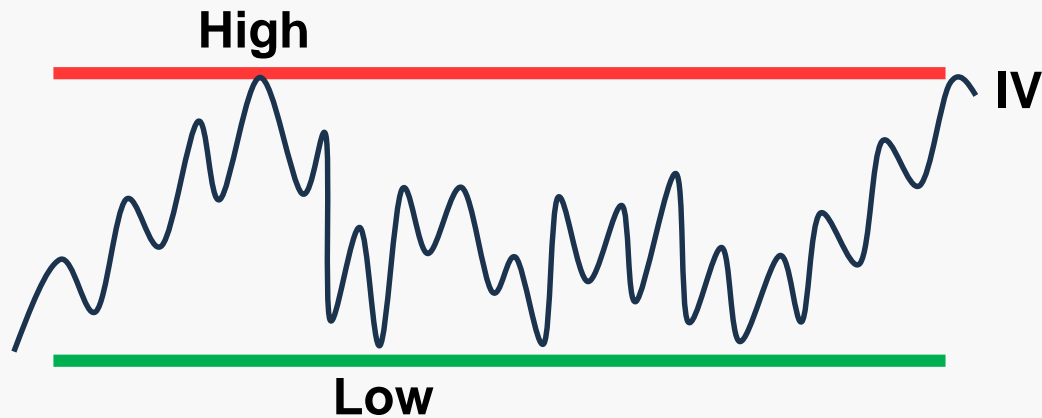


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

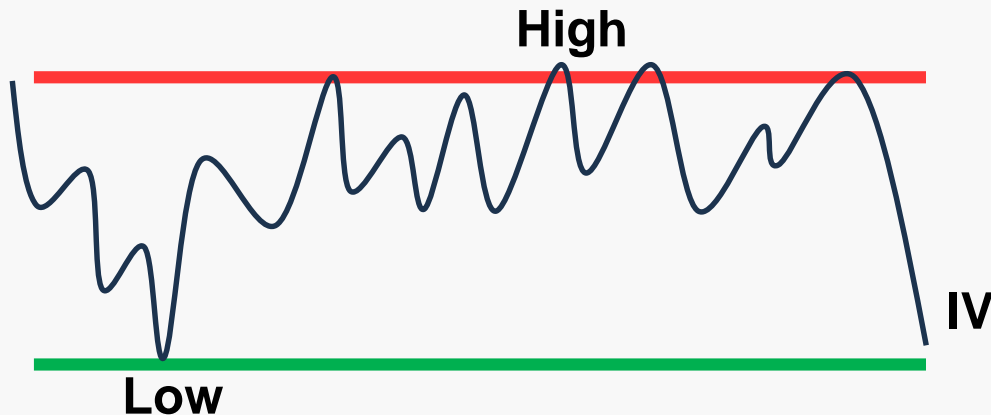


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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