



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,612	0.2% ▼
Open Interest (OI)	2,03,49,550	0.4% ▲
Change in OI (abs)	2,03,49,550	77,870 ▲
Premium / Discount (Abs)	-6	14 ▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	53,502	0.37% ▼
Open interest (OI)	28,29,270	1.8% ▲
Change in OI (abs)	28,29,270	48,540 ▲
Premium / Discount (Abs)	93	73 ▼
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	18.68	0.95 ▼
Nifty ATM IV (%)	19.26	0.00 ▲
Bank Nifty ATM IV (%)	21.99	2.44 ▼
PCR (Nifty)	1.10	0.14 ▼
PCR (Bank Nifty)	0.77	0.03 ▼

The FII Long Ratio in Index Futures drop to **12.2%**, down from **12.9 %** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
AMBER	28,73,500	20.9%	7157	0.1%
INFY	9,73,26,400	7.9%	1190.9	4.0%
PETRONET	3,71,48,800	6.5%	266.05	0.3%
ASHOKLEY	18,39,50,000	5.3%	152.01	0.2%
PNBHOUSING	1,18,65,750	4.6%	1068	1.9%

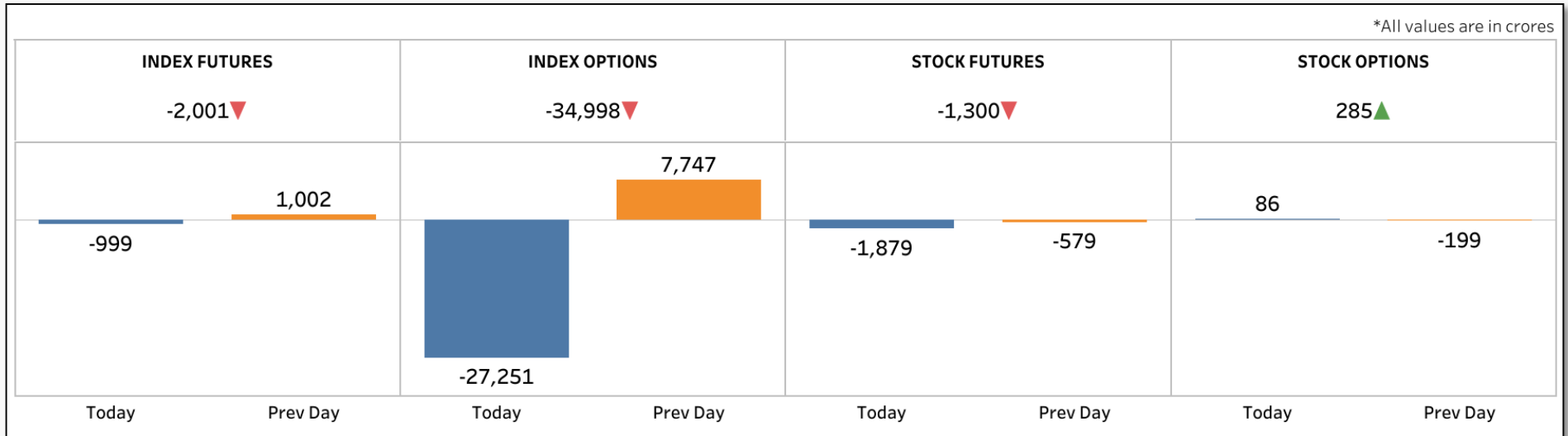
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
FORCEMOT	3,19,975	11.0%	19185	-1.8%
ASTRAL	1,06,16,075	10.7%	1444.9	-6.6%
NAM-INDIA	38,24,375	6.8%	1086.5	-0.2%
RVNL	7,29,81,400	6.0%	271.4	-2.2%
ICICIBANK	16,99,97,100	5.8%	1245	-0.7%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NUVAMA	19,39,000	-3.4%	1472.9	1.9%
JSWENERGY	2,58,43,400	-3.4%	534	0.6%
JUBLFOOD	3,93,40,000	-3.2%	474.9	4.1%
PRESTIGE	56,61,900	-3.1%	1379.7	2.9%
DIXON	31,79,300	-2.8%	11034	2.3%

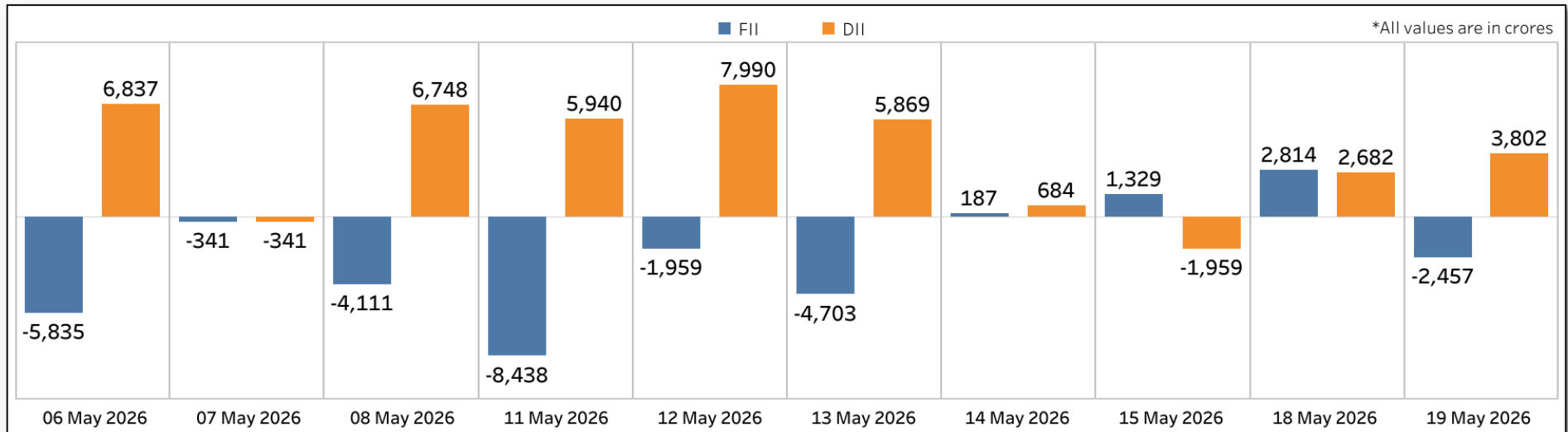
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NATIONALUM	4,92,56,250	-2.5%	398.7	-0.4%
BHARTIARTL	5,75,08,250	-2.1%	1911.6	-1.3%
CHOLAFIN	1,88,36,875	-1.7%	1513.8	-0.9%
OIL	1,80,05,400	-1.6%	503.85	-0.8%
INDUSTOWER	8,74,05,500	-1.4%	430.5	-0.1%

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

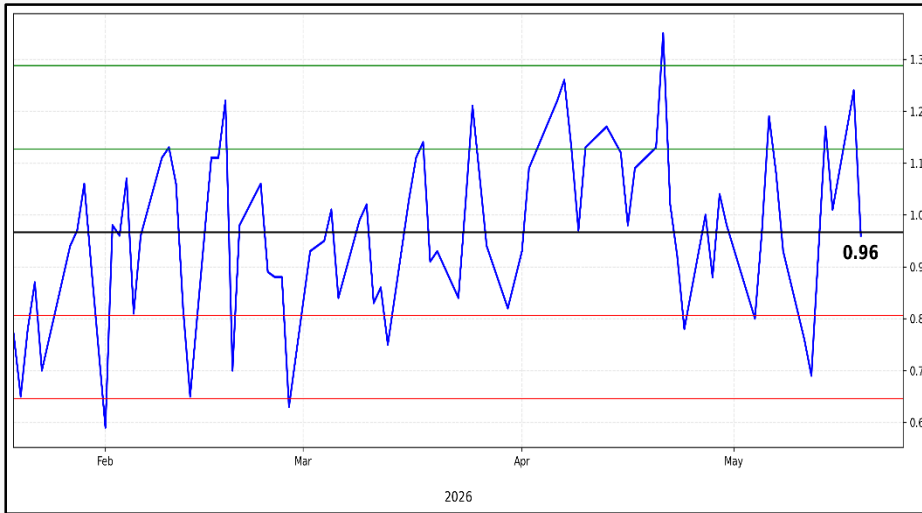
Daily Net Open Interest Change



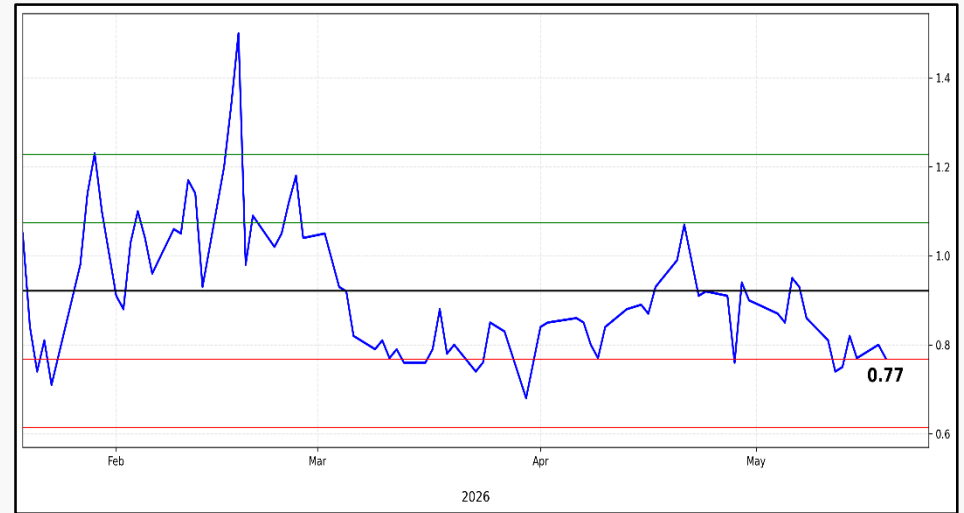
DII and FII Daily Cash Market Flows



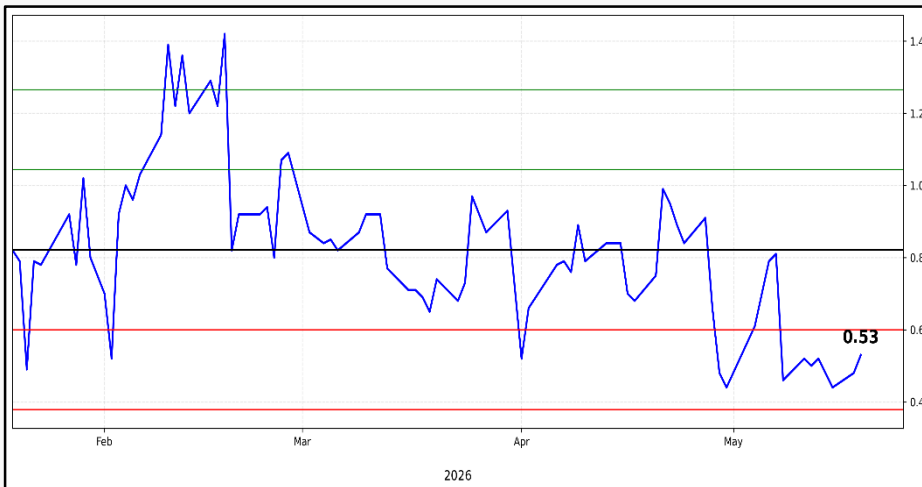
Nifty



Bank Nifty



Fin Nifty



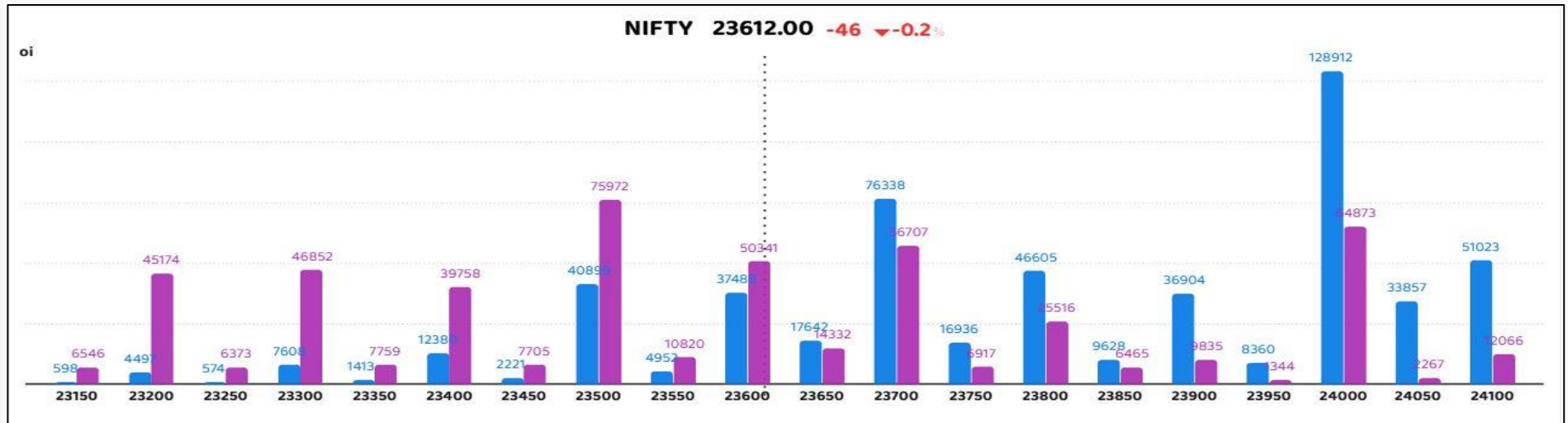
Midcap Select Nifty



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 Nifty, the 24,000 Call and 23,500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 54,000 Call and the 53,000 Put saw the most amount of open interest.

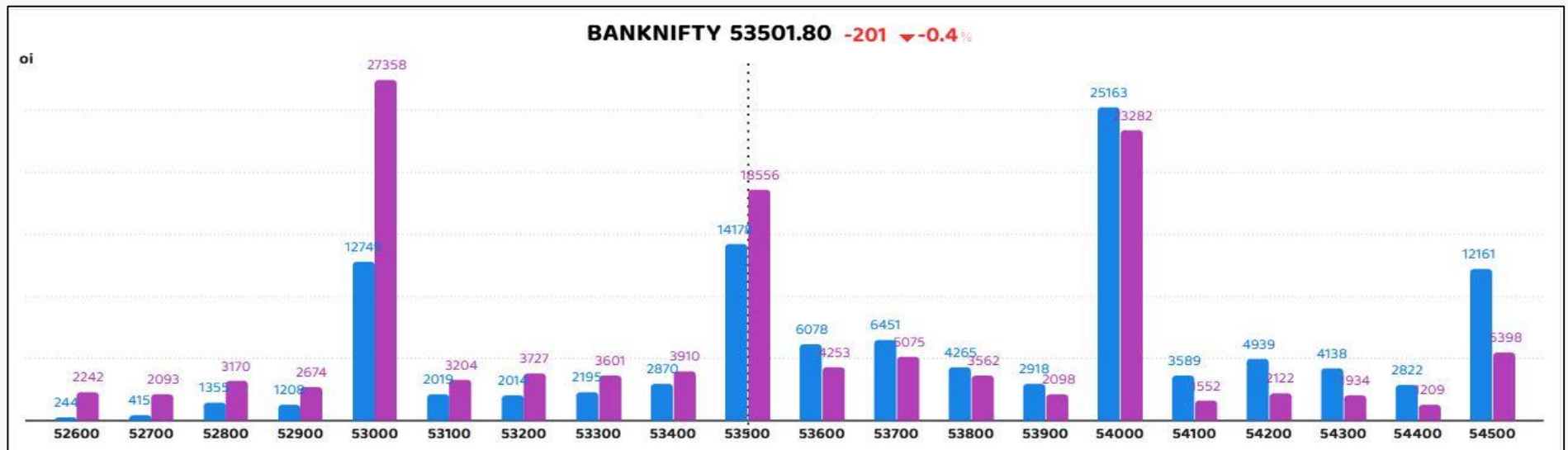
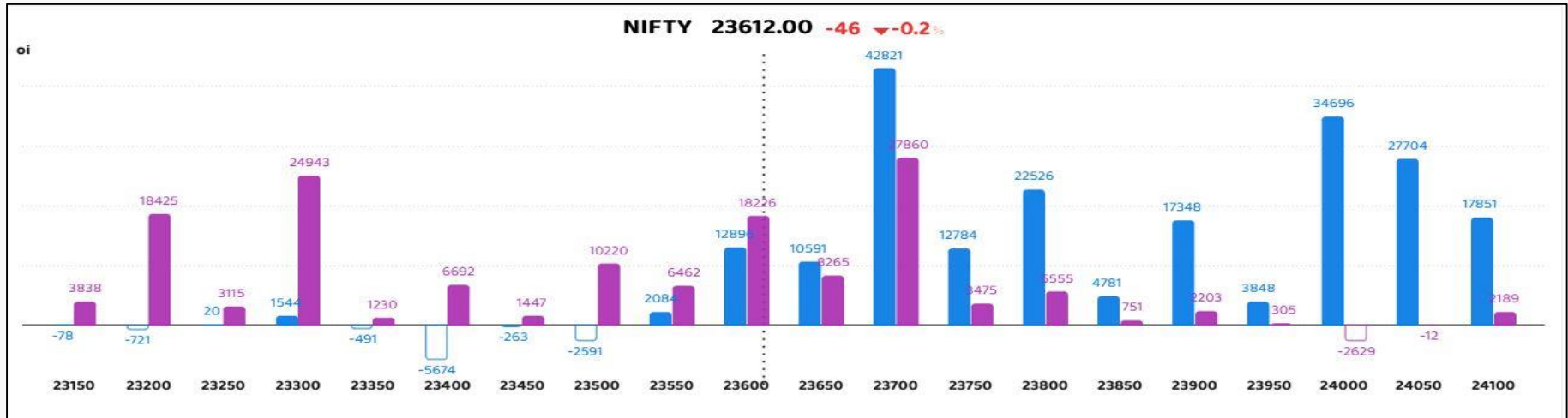


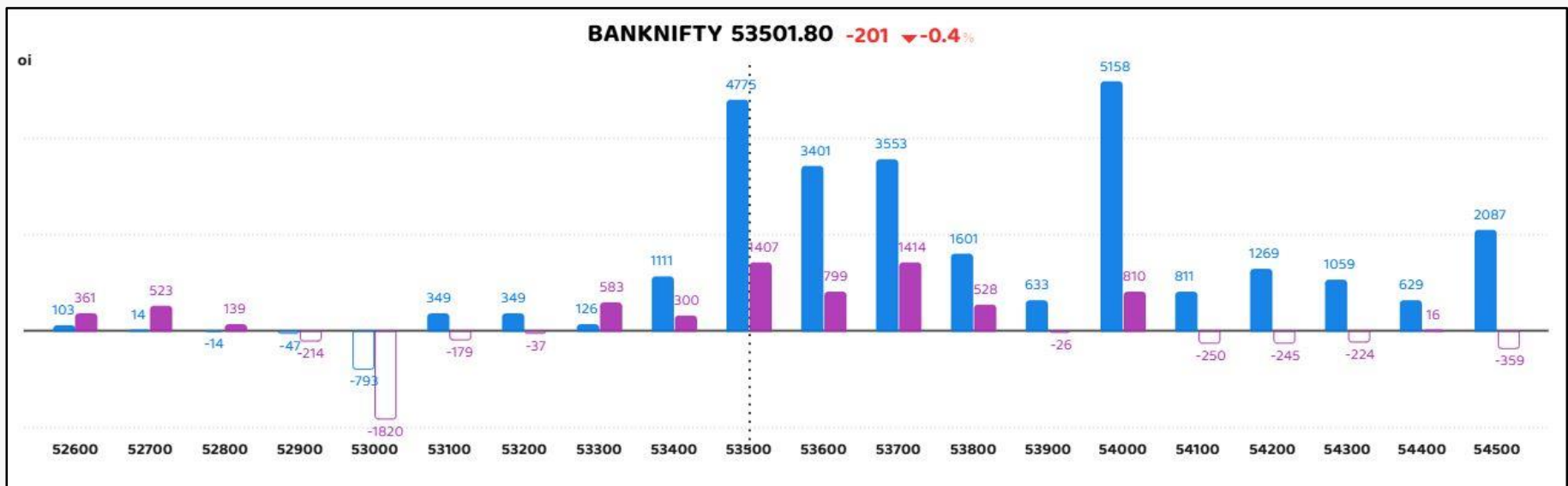
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■

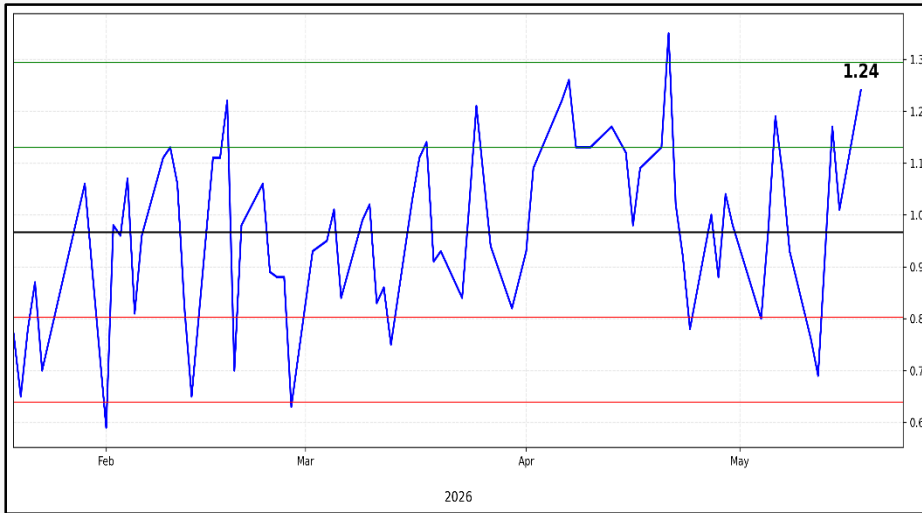


The largest open interest changes (contracts) were seen at the 23,700 Call and the 23,300 Put



For the Bank Nifty, the biggest open interest changes were seen at the 54,000 Call & the 53,000 Put

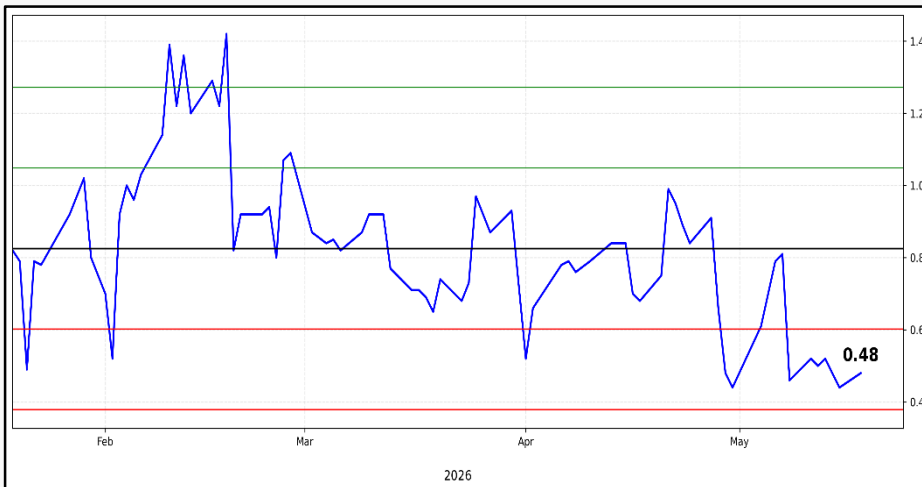
Nifty



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

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
VEDANTA LTD	337.7	3.3	43.9	47.4	9.2	90.7
APOLLO HOSPITALS	8026.0	0.1	27.9	29.7	13.5	89.4
COLGATE PALMOLIV	2188.3	1.7	30.0	33.8	9.7	84.3
COAL INDIA LTD	457.0	-1.1	29.8	35.3	0.8	84.1
BHARAT HEAVY ELE	401.1	1.5	36.3	45.1	5.2	78.0

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ASHOK LEYLAND	151.4	0.2	39.4	734.8	18.5	2.9
ADITYA BIRLA CAP	351.2	0.3	32.2	658.6	8.2	3.7
INDUS TOWERS LTD	430.7	-0.1	25.5	51.0	23.4	7.3
CHOLAMANDALAM IN	1511.4	-1.0	32.9	186.8	19.6	7.9
VODAFONE IDEA LT	13.5	5.1	24.3	212.9	7.2	8.3

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
WIPRO LTD	195.2	1.6	49.7	67.3	5.0	98.9
ZYDUS LIFESCIENC	1018.9	2.8	30.6	36.7	16.5	98.0
APOLLO HOSPITALS	8026.0	0.1	27.9	29.7	13.5	97.9
MANKIND PHARMA L	2492.6	-0.1	37.1	40.7	20.2	97.3
PI INDUSTRIES	3124.6	0.9	38.3	57.8	12.5	97.2

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
VODAFONE IDEA LT	13.5	5.1	24.3	212.9	7.2	2.2
BSE LTD	4190.8	1.7	35.7	55.9	32.9	3.2
INDUS TOWERS LTD	430.7	-0.1	25.5	51.0	23.4	5.2
LAURUS LABS LTD	1344.9	1.3	27.7	48.4	24.7	19.0
ONE 97 COMMUNICA	1121.4	1.5	35.5	124.0	28.3	26.3

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
TORNTPHARM	4,460.1	1.5	17,690.0	2,188.0	8.1
IRFC	97.2	-0.5	11,525.0	1,982.0	5.8
NAUKRI	933.6	0.8	10,841.0	2,186.0	5.0
UNIONBANK	159.0	0.0	10,900.0	2,267.0	4.8
TIINDIA	2,892.3	2.7	9,620.0	2,039.0	4.7

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
PAGEIND	38,700.0	3.2	6,194.0	8,840.0	1.4
POWERINDIA	33,360.0	1.7	15,754.0	18,903.0	1.2
RELIANCE	1,322.7	-1.0	232,982.0	262,372.0	1.1
ASTRAL	1,448.9	-6.3	53,839.0	55,839.0	1.0
AUROPHARMA	1,512.8	0.8	6,836.0	7,074.0	1.0

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
SUNPHARMA	1,882.3	-1.2	54,455.0	52,389.0	100.0
BHARTIARTL	1,913.5	-1.3	58,297.0	54,391.0	100.0
ASTRAL	1,448.9	-6.3	12,500.0	10,794.0	100.0
BPCL	286.4	2.0	19,780.0	19,450.0	100.0
ASHOKLEY	151.4	0.2	25,447.0	25,317.0	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
KFINTECH	824.7	1.4	5,678.0	5,369.0	100.0
BIOCON	428.2	0.4	9,441.0	8,987.0	100.0
BPCL	286.4	2.0	12,832.0	12,664.0	100.0
ASTRAL	1,448.9	-6.3	7,715.0	5,867.0	100.0
MPHASIS	2,220.5	3.4	5,293.0	4,526.0	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
ZYDUSLIFE	1,018.9	2.8	72,755.0	53,711.0	100.0
IOC	135.0	2.4	33,721.0	34,936.0	96.5
VOLTAS	1,302.6	4.0	54,950.0	61,365.0	89.5
ASTRAL	1,448.9	-6.3	53,839.0	60,878.0	88.4
IDEA	13.5	5.1	68,528.0	81,332.0	84.3

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
ZYDUSLIFE	1,018.9	2.8	30,320.0	19,260.0	100.0
ASTRAL	1,448.9	-6.3	55,839.0	24,865.0	100.0
IDEA	13.5	5.1	25,160.0	27,465.0	91.6
COFORGE	1,412.0	4.7	96,382.0	111,398.0	86.5
BSE	4,190.8	1.7	95,306.0	125,820.0	75.7

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
AMBER	7,128.5	-0.3	31,696.0	10,395.5	3.0
UNOMINDA	1,051.9	-1.5	7,972.0	3,056.6	2.6
ZYDUSLIFE	1,018.9	2.8	9,772.0	4,047.0	2.4
KAYNES	3,091.5	-0.9	45,631.0	20,689.3	2.2
ASTRAL	1,448.9	-6.3	12,500.0	5,680.1	2.2

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
AMBER	7,128.5	-0.3	17,070.0	6,424.2	2.7
UNOMINDA	1,051.9	-1.5	3,441.0	1,525.4	2.3
ASTRAL	1,448.9	-6.3	7,715.0	3,452.2	2.2
SOLARINDS	18,115.0	0.5	7,633.0	3,513.8	2.2
ZYDUSLIFE	1,018.9	2.8	5,562.0	2,827.0	2.0

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
ZYDUSLIFE	1,018.9	2.8	72,755.0	7,674.0	9.5
ASTRAL	1,448.9	-6.3	53,839.0	8,794.4	6.1
UNOMINDA	1,051.9	-1.5	27,347.0	5,995.4	4.6
ANGELONE	328.0	7.9	55,051.0	14,815.5	3.7
PIIND	3,124.6	0.9	28,098.0	7,757.0	3.6

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
ASTRAL	1,448.9	-6.3	55,839.0	3,832.2	14.6
ZYDUSLIFE	1,018.9	2.8	30,320.0	2,711.7	11.2
PIIND	3,124.6	0.9	15,719.0	2,741.8	5.7
UNOMINDA	1,051.9	-1.5	14,621.0	2,607.4	5.6
PAGEIND	38,700.0	3.2	8,840.0	2,767.0	3.2

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	2800	1334262	2.8%	2725	2700	675783	-0.9%	JIOFIN	260	13061300	11.5%	233	250	4441500	7.2%
ADANIPTS	1800	1341400	2.1%	1763	1700	884925	-3.6%	JSWSTEEL	1300	1906875	1.2%	1285	1240	452925	-3.5%
APOLLOHOSP	8500	189625	5.9%	8026	7600	77250	-5.3%	KOTAKBANK	390	7128000	2.1%	382	360	3848000	-5.7%
ASIANPAINT	2600	895750	0.0%	2601	2500	418250	-3.9%	LT	4000	1221500	2.0%	3921	3900	564025	-0.5%
AXISBANK	1300	3863750	5.0%	1238	1200	1174375	-3.1%	M&M	3100	670200	0.2%	3092	3100	646200	0.2%
BAJAJ-AUTO	10600	227100	3.9%	10205	10000	141975	-2.0%	MARUTI	14000	402700	8.1%	12956	12500	111850	-3.5%
BAJAJFINSV	1820	946250	4.0%	1750	1700	344000	-2.8%	MAXHEALTH	1100	568050	2.9%	1069	1000	284025	-6.4%
BAJFINANCE	1000	2539500	8.3%	924	900	1859250	-2.5%	NESTLEIND	1500	846500	4.8%	1431	1400	468500	-2.2%
BEL	440	8274975	4.0%	423	430	3247575	1.7%	NTPC	400	14481000	2.7%	389	390	2323500	0.2%
BHARTIARTL	1940	3556325	1.4%	1914	1800	1835400	-5.9%	ONGC	305	13905000	2.9%	297	280	4878000	-5.6%
CIPLA	1440	1043250	2.1%	1410	1300	1189875	-7.8%	POWERGRID	320	6055300	7.2%	299	300	1751800	0.5%
COALINDIA	500	5533650	9.4%	457	465	3164400	1.8%	RELIANCE	1500	8054000	13.4%	1323	1350	2228000	2.1%
DRREDDY	1400	2561250	4.9%	1335	1200	961875	-10.1%	SBILIFE	1860	1340250	-1.1%	1881	1860	319875	-1.1%
EICHERMOT	7000	142700	1.7%	6883	6500	99600	-5.6%	SBIN	1100	16160250	15.9%	949	1000	4020000	5.4%
ETERNAL	260	13514525	5.2%	247	240	4134625	-2.9%	SHRIRAMFIN	1000	2064975	7.8%	927	940	744975	1.4%
GRASIM	3000	296000	2.2%	2935	2800	147750	-4.6%	SUNPHARMA	1900	4246550	0.9%	1882	1900	1373050	0.9%
HCLTECH	1300	3413200	10.2%	1179	1200	1344350	1.7%	TATACONSUM	1300	809600	7.4%	1211	1200	372900	-0.9%
HDFCBANK	800	12711600	4.9%	762	750	4202000	-1.6%	TMPV	360	7422400	-0.3%	361	360	2518400	-0.3%
HDFCLIFE	600	3352800	-1.7%	610	615	1279300	0.8%	TATASTEEL	220	22002750	5.1%	209	210	12529000	0.3%
HINDALCO	1100	1264900	4.9%	1048	1080	910700	3.0%	TCS	2500	2300025	7.4%	2327	2400	677425	3.1%
HINDUNILVR	2400	1846200	7.5%	2233	2300	727500	3.0%	TECHM	1460	1371000	-0.5%	1467	1420	856800	-3.2%
ICICIBANK	1300	4659200	4.8%	1241	1250	2203600	0.7%	TITAN	4500	849625	9.7%	4102	4100	376425	0.0%
INDIGO	4500	909450	6.4%	4230	4200	434250	-0.7%	TRENT	4500	874800	10.6%	4070	4000	182700	-1.7%
INFY	1200	4433200	0.3%	1197	1100	1988000	-8.1%	ULTRACEMCO	12000	160700	5.6%	11368	11500	50950	1.2%
ITC	310	20705600	-0.1%	310	290	4520000	-6.5%	WIPRO	210	16119000	7.6%	195	190	7728000	-2.6%

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

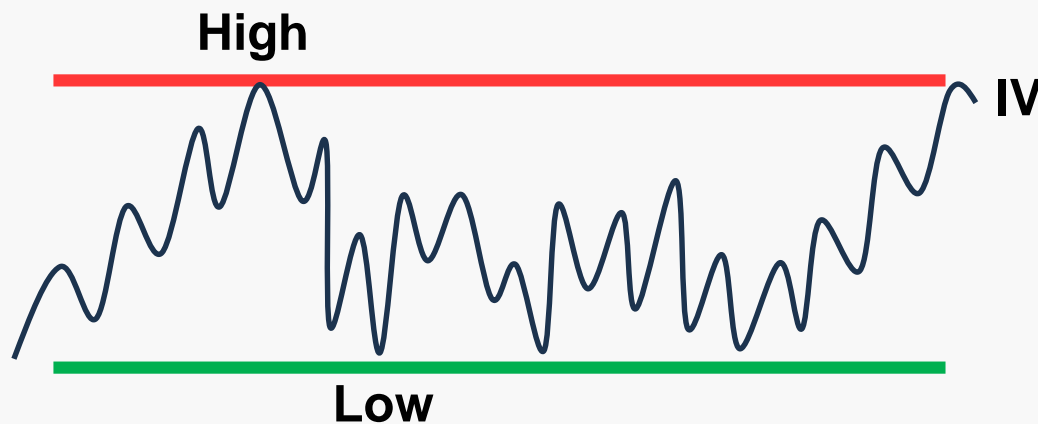
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

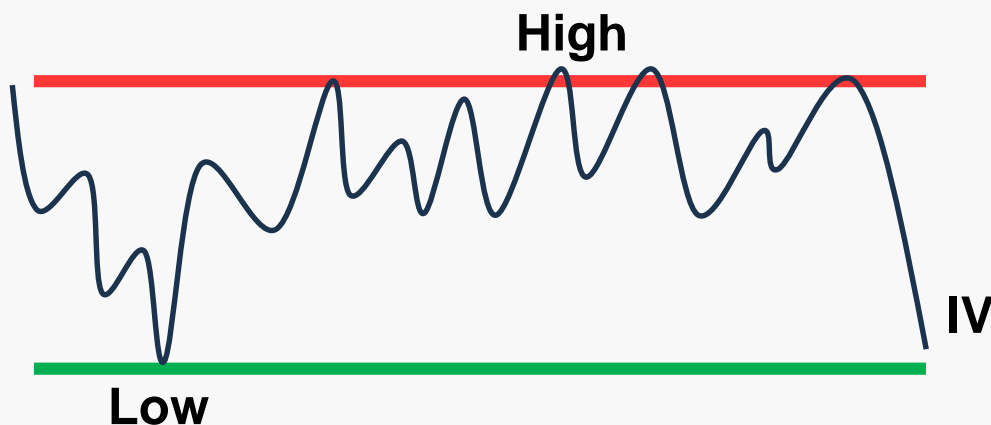
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

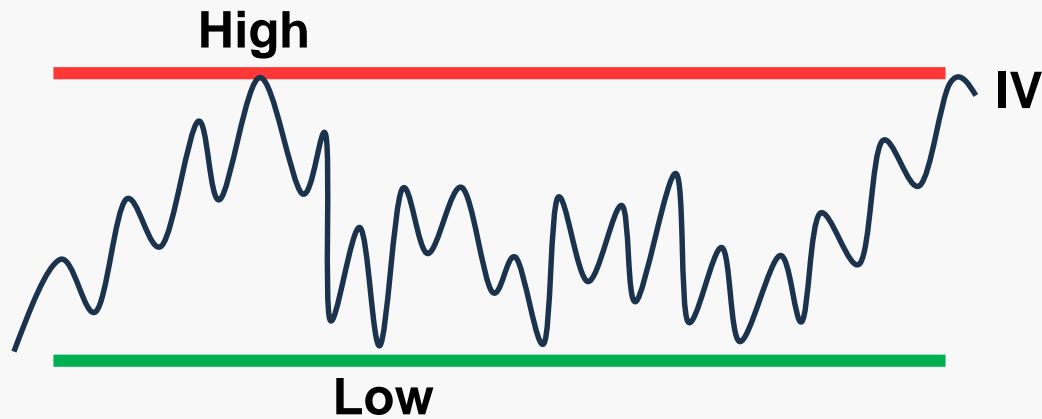


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

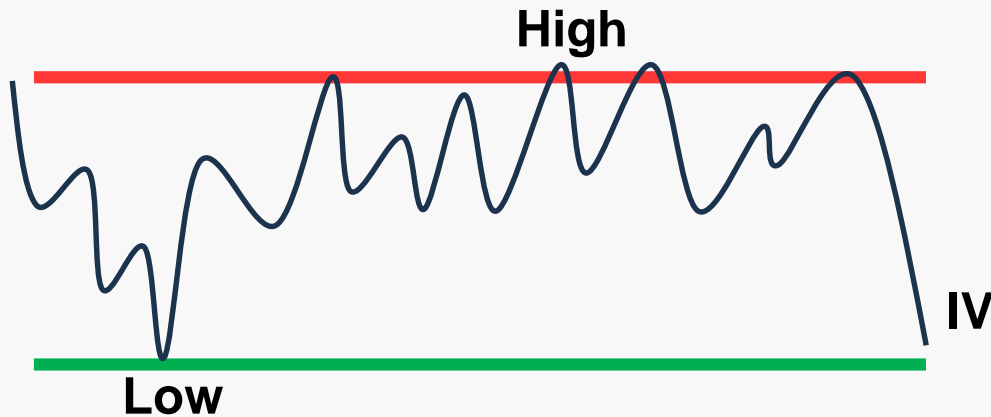


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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