

Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	24,461	0.1%▲
Open Interest (OI)	1,51,65,975	2.0%▼
Change in OI (abs)	1,51,65,975	3,13,500▼
Premium / Discount (Abs)	47	5▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	54,671	0.6%▲
Open interest (OI)	21,51,785	6.7%▼
Change in OI (abs)	21,51,785	1,54,005▼
Premium / Discount (Abs)	60	32▼
Inference	Long Unwinding	

Volatility Insights

	Value	Change
India VIX Index	19.06	0.06▲
Nifty ATM IV (%)	16.16	0.3▲
Bank Nifty ATM IV (%)	17.46	0.2▼
PCR (Nifty)	0.97	0.05▲
PCR (Bank Nifty)	0.86	0.00▲

The Long Ratio for FII Index Futures **jump** at 50.1 %, **up** from 49.2 % in the **last session..**

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PAYTM	1,78,77,925	13.8%	877.35	7.4%
APOLLOTYRE	82,14,400	11.0%	495.7	2.9%
APLAPOLLO	48,71,650	10.4%	1666.2	3.0%
IIFL	1,28,93,600	9.4%	369.5	7.0%
BIOCON	2,55,92,500	8.7%	347.75	1.4%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
HUDCO	1,89,03,750	19.2%	214.57	-1.7%
ASIANPAINT	1,28,89,950	13.0%	2321.5	-3.8%
PNB	27,35,04,000	11.5%	94.4	-0.3%
ADANIENSOL	1,16,36,825	11.3%	876.05	-3.7%
ITC	13,70,30,400	6.7%	430	-1.1%

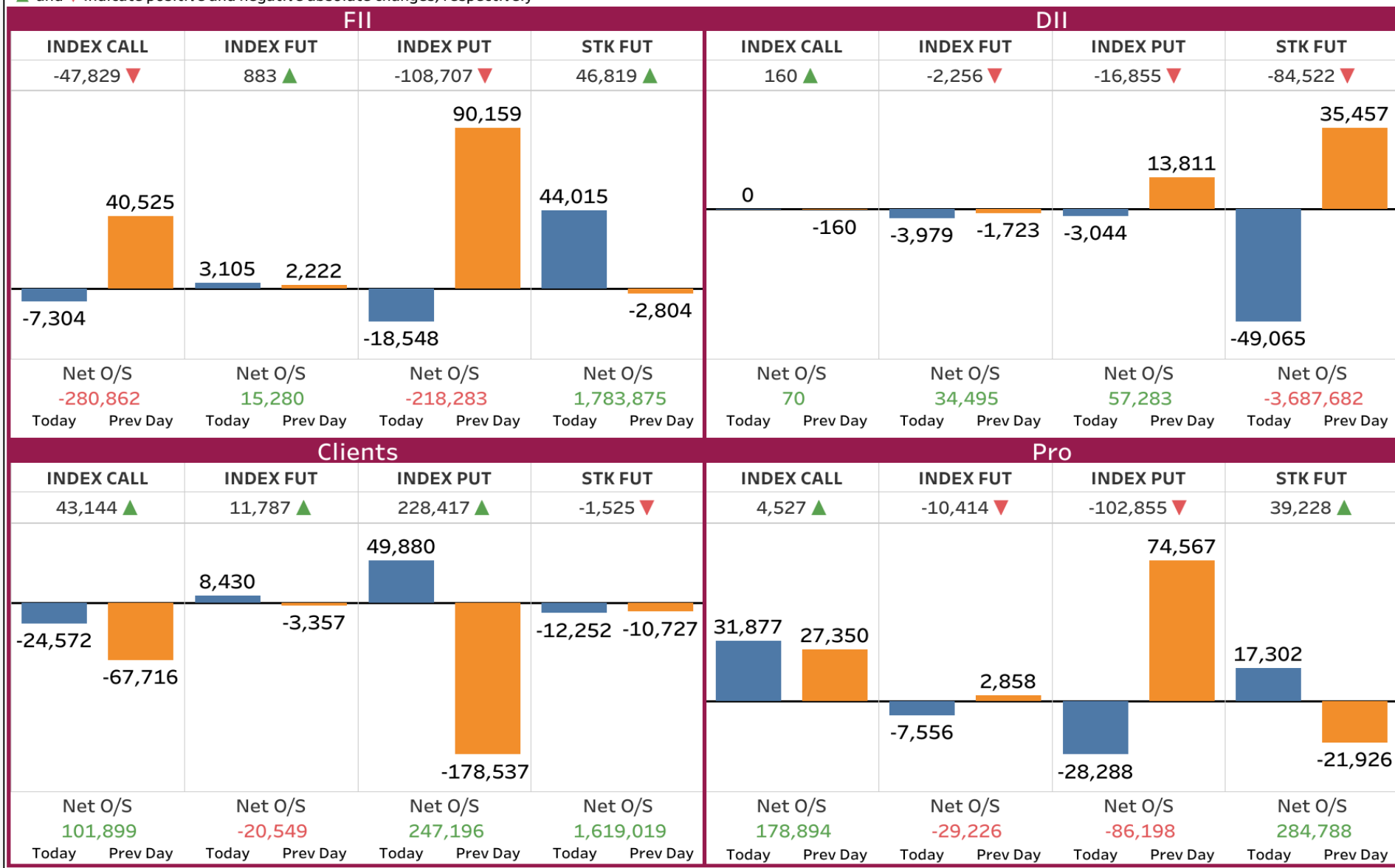
Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CAMS	16,44,675	-12.2%	3653.8	1.6%
KEI	15,46,625	-11.2%	3299.4	2.9%
MUTHOOTFIN	35,12,575	-8.1%	2311.4	2.7%
MGL	31,64,400	-7.8%	1413.1	2.5%
COFORGE	33,39,825	-5.4%	7593	2.3%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
GODREJCP	1,18,55,500	-4.7%	1244.4	-0.6%
POLYCAB	21,29,250	-3.6%	5902.5	-0.4%
CDSL	2,05,78,925	-2.0%	1222.2	-0.5%
BHARTIARTL	4,41,31,775	-1.5%	1899.7	-0.2%
ATGL	32,75,150	-1.4%	627.95	-0.7%

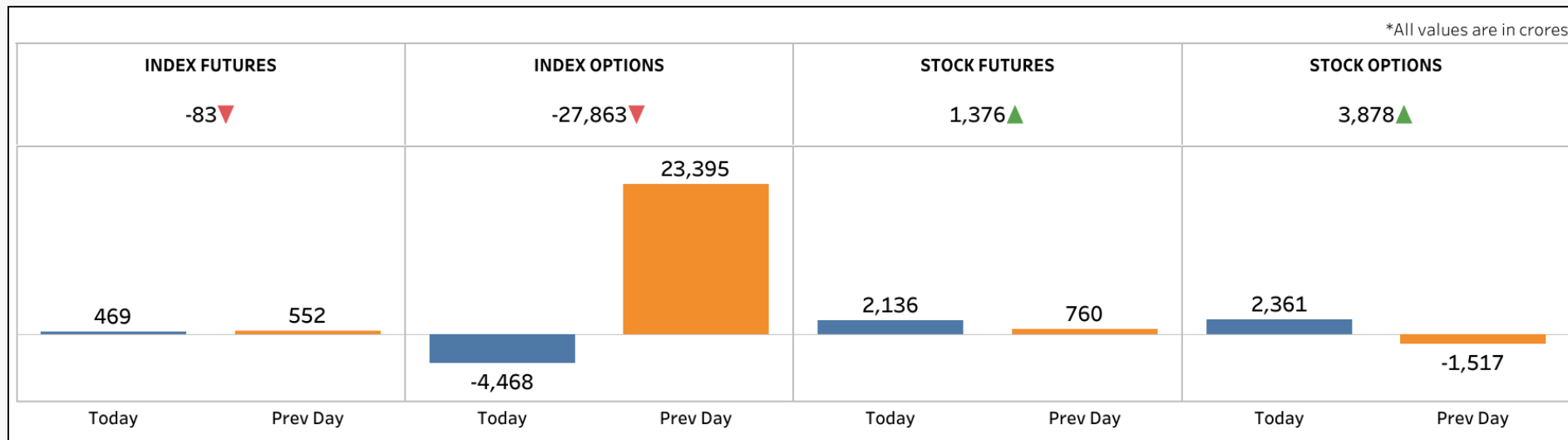
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

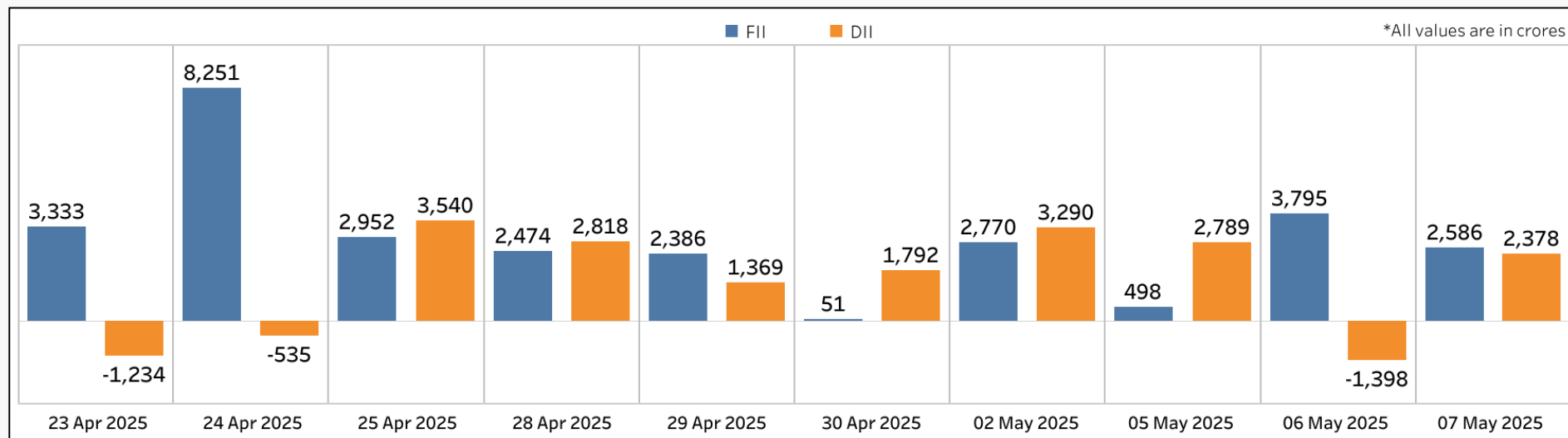
▲ and ▼ indicate positive and negative absolute changes, respectively



Daily Net Open Interest Change

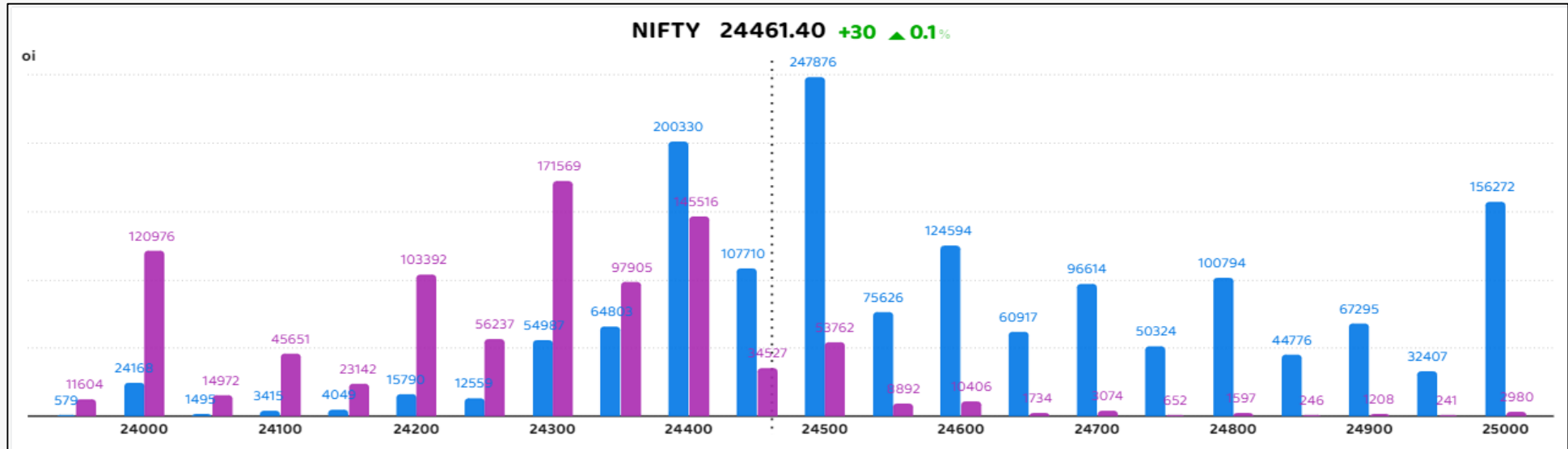


DII and FII Daily Cash Market Flows



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

Call  Put 



For the Nifty, the 24,500 Call and the 24,300 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 55,500 Call and the 54,000 Put saw the most amount of open interest.

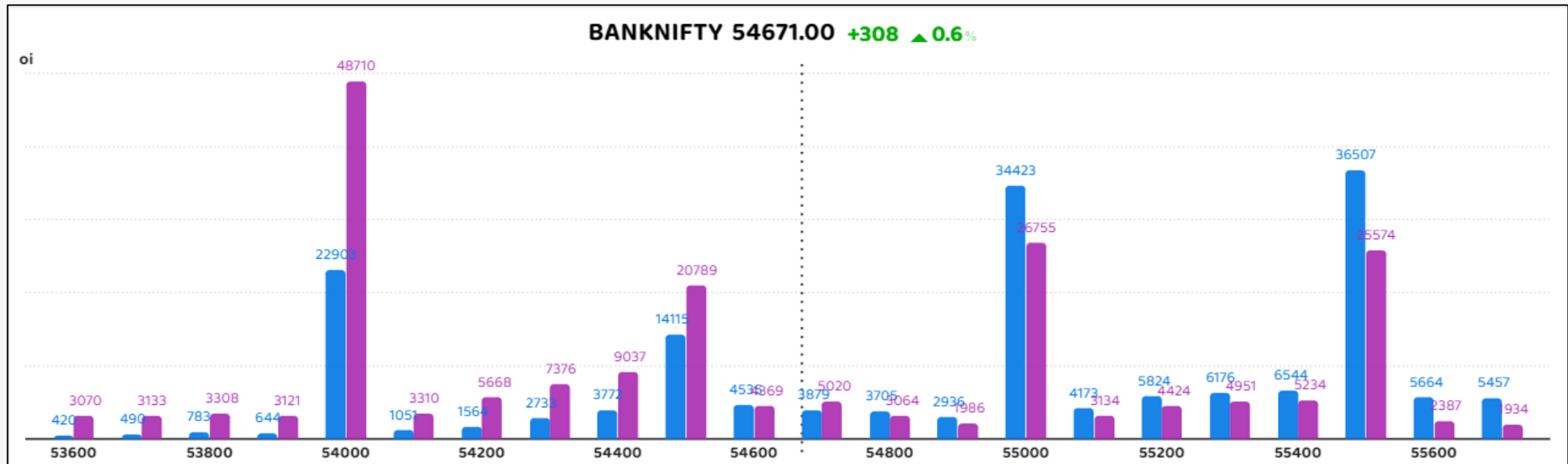
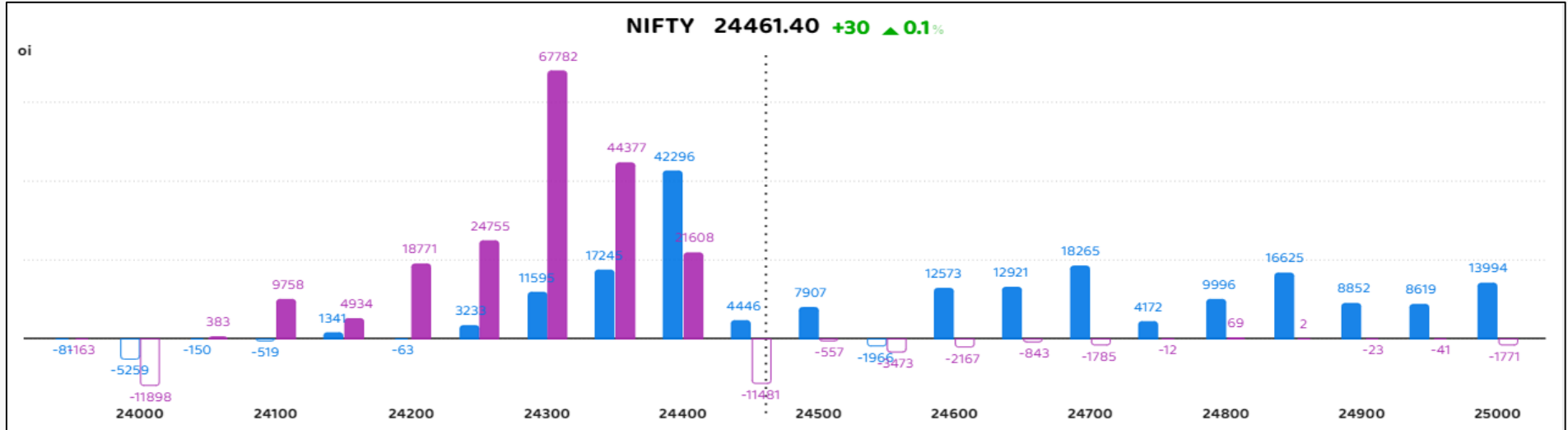


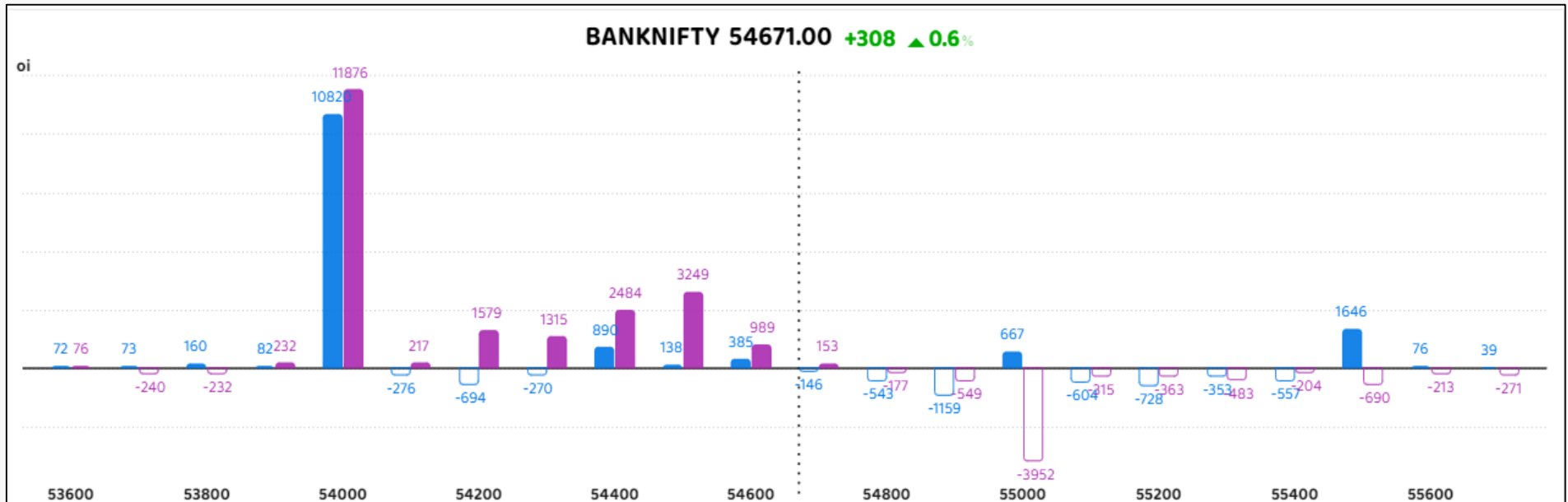
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,400 Call and the 24,300 Put



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

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
SYNGENE INTERNAT	621.2	0.4	36.0	38.8	15.7	87.9
DIXON TECHNOLOGI	16095	0.2	44.0	53.0	1.8	82.4
TITAN CO LTD	3338.9	1.2	27.8	33.5	2.3	81.7
UPL LTD	688	1.3	34.8	44.0	2.9	77.8
HERO MOTOCORP LT	3868	-0.1	32.0	40.4	2.8	77.7

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INDUSIND BANK	833.8	0.2	0.5	77.2	0.5	0.0
ADANI GREEN ENER	917.25	-0.6	45.7	74.3	45.4	1.3
HDFC LIFE INSURA	723.9	0.2	22.9	80.6	19.6	5.3
INDIAN RENEWABLE	162.37	1.3	45.0	69.2	42.9	7.8
PHOENIX MILLS	1526.6	1.9	35.9	64.3	33.5	7.9

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ASIAN PAINTS LTD	2334.1	-3.5	29.3	34.6	15.5	98.1
ABB INDIA LTD	5397.5	1.2	44.1	56.4	24.7	97.8
DR REDDY'S LABS	1160.7	0.0	33.7	39.7	14.4	97.4
SRF LTD	3055.7	4.4	35.7	40.1	21.4	95.1
SYNGENE INTERNAT	621.2	0.4	36.0	38.8	15.7	95.0

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INDUSIND BANK	833.8	0.2	0.5	77.2	0.5	0.0
ADANI GREEN ENER	917.25	-0.6	45.7	74.3	45.4	1.7
RELIANCE INDS	1406	-1.0	15.7	34.1	2.1	2.4
ANGEL ONE LTD	2375.7	3.3	36.6	72.7	22.1	4.7
APOLLO HOSPITALS	6983	-0.4	19.4	40.3	12.9	4.8

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	18.27	1.9	22961	3281	7.0
DELHIVERY LTD	304.5	0.8	12472	2899	4.3
ESCORTS KUBOTA L	3204	0.2	5510	1480	3.7
APL APOLLO TUBES	1663	3.0	29106	9235	3.2
SIEMENS LTD	2967.2	0.9	16297	5364	3.0

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
TATA CONSUMER PR	1146	-0.8	7372	11399	1.5
PRESTIGE ESTATES	1337	0.4	2693	3998	1.5
PATANJALI FOODS	1833.1	-1.0	6610	9481	1.4
INTERGLOBE AVIAT	5296.5	-0.5	18141	24774	1.4
RELIANCE INDS	1406	-1.0	97764	109216	1.1

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
SYNGENE INTERNAT	621.2	0.4	14764	14872	99.3
VARUN BEVERAGES	512.1	-0.4	14464	15074	96.0
TATA TECHNOLOGIE	657.7	1.4	12608	13547	93.1
ACC LTD	1844.9	-0.2	19840	21413	92.7
MANAPPURAM FINAN	230.69	1.3	10568	11426	92.5

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
HFCL LTD	77.71	1.8	4910	4910	100.0
TATA TECHNOLOGIE	657.7	1.4	6609	6973	94.8
CENTRAL DEPOSITO	1266.6	0.5	17071	18228	93.7
VOLTAS LTD	1244	1.2	17486	18689	93.6
TUBE INVESTMENTS	2955	1.5	2353	2527	93.1

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
APL APOLLO TUBES	1663.00	3.0	29106	29723	97..9
PUNJAB NATL BANK	94.25	-0.2	84443	87850	96.1
BSE LTD	6652.50	6.5	250589	308856	81.1

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
PUNJAB NATL BANK	94.25	-0.2	64825	64825	100.0
PATANJALI FOODS	1833.1	-1.0	9481	9481	100.0
BSE LTD	6652.5	6.5	167667	194918	86.0

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
ACC LTD	1844.9	-0.2	19840	9033	2.2
BANK OF BARODA	224.5	0.3	25107	11897	2.1
INDIAN HOTELS CO	765.65	1.6	18093	8624	2.1
SYNGENE INTERNAT	621.2	0.4	14764	7340	2.0
ADANI TOTAL GAS	625.45	-1.2	4717	2598	1.8

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
ONE 97 COMMUNICA	873.5	7.2	12147	5416	2.2
PIRAMAL ENTERPRI	1034.6	7.5	3729	1752	2.1
MRF LTD	140420	4.0	2891	1460	2.0
APL APOLLO TUBES	1663	3.0	4165	2462	1.7
ACC LTD	1844.9	-0.2	9322	5606	1.7

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
PIRAMAL ENTERPRI	1034.6	7.5	25641	4292	6.0
MRF LTD	140420	4.0	16482	3718	4.4
PUNJAB NATL BANK	94.25	-0.2	84443	20356	4.1
UNITED SPIRITS	1589.5	0.8	20633	5916	3.5
BANK OF BARODA	224.5	0.3	71439	23675	3.0

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
PIRAMAL ENTERPRI	1034.6	7.5	15730	2337	6.7
MRF LTD	140420	4.0	10703	1658	6.5
PUNJAB NATL BANK	94.25	-0.2	64825	13493	4.8
UNITED SPIRITS	1589.5	0.8	11152	3224	3.5
INDIAN HOTELS CO	765.65	1.6	35007	13115	2.7

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	1935000	10.5%	2353	2600	2385000	10.5%	ITC	450	5921600	4.4%	431	430	3856000	-0.3%
ADANIPTS	1400	1433600	4.6%	1338	1200	1112400	-10.3%	JIOFIN	300	5941650	17.1%	256	260	3836250	1.5%
APOLLOHOSP	7200	105625	3.1%	6983	6150	92125	-11.9%	JSWSTEEL	1050	905850	8.7%	966	900	1229175	-6.8%
ASIANPAINT	2500	741600	7.1%	2334	2300	514200	-1.5%	KOTAKBANK	2300	1589200	9.8%	2095	2000	645600	-4.5%
AXISBANK	1200	2418750	3.3%	1161	1100	1307500	-5.3%	LT	3500	612150	5.4%	3321	3300	419700	-0.6%
BAJAJ-AUTO	8500	163875	8.3%	7849	8000	82125	1.9%	M&M	3300	882525	5.8%	3120	2900	478800	-7.0%
BAJAJFINSV	2100	2163500	3.4%	2030	1900	534500	-6.4%	MARUTI	12000	333250	-5.0%	12633	12000	239250	-5.0%
BAJFINANCE	10000	800375	11.3%	8987	8000	402375	-11.0%	NESTLEIND	2500	562200	6.9%	2338	2400	132400	2.6%
BEL	320	7877400	3.2%	310	290	3856050	-6.4%	NTPC	370	8332500	8.2%	342	380	2143500	11.1%
BHARTIARTL	1920	1950825	1.2%	1897	1800	1061150	-5.1%	ONGC	240	7547925	0.6%	239	240	2055900	0.6%
CIPLA	1600	778050	6.0%	1509	1300	456300	-13.8%	POWERGRID	330	3979800	6.1%	311	320	1576800	2.9%
COALINDIA	400	5908350	4.4%	383	450	2151450	17.4%	RELIANCE	1450	6164000	3.1%	1406	1300	7852500	-7.5%
DRREDDY	1200	1195000	3.4%	1161	1000	597500	-13.8%	SBILIFE	1780	929250	2.0%	1745	1700	339750	-2.6%
EICHERMOT	5700	186550	3.8%	5489	5300	144550	-3.4%	SBIN	800	11736750	3.1%	776	800	4469250	3.1%
ETERNAL	260	9128000	9.8%	237	230	4750000	-2.9%	SHRIRAMFIN	700	2918250	10.0%	637	600	806250	-5.8%
GRASIM	3120	321000	15.6%	2700	2340	119250	-13.3%	SUNPHARMA	1900	2569350	6.7%	1781	1800	579600	1.0%
HCLTECH	1600	891450	2.3%	1563	1200	911400	-23.2%	TATACONSUM	1300	807120	13.4%	1146	1100	428640	-4.0%
HDFCBANK	2000	3518350	2.8%	1946	1800	2839650	-7.5%	TATAMOTORS	700	4613950	2.9%	680	650	3449600	-4.5%
HDFCLIFE	760	2013000	5.0%	724	720	955900	-0.5%	TATASTEEL	150	15493500	2.7%	146	140	14360500	-4.1%
HEROMOTOCO	4000	328800	3.4%	3868	3900	193050	0.8%	TCS	3500	959175	1.6%	3445	3400	515725	-1.3%
HINDALCO	700	1820000	10.0%	636	600	1118600	-5.7%	TECHM	1500	672600	0.3%	1495	1400	427200	-6.4%
HINDUNILVR	2500	1226400	5.4%	2371	2100	462300	-11.4%	TITAN	3400	301350	1.8%	3339	3000	272650	-10.2%
ICICIBANK	1500	2970100	4.5%	1435	1400	2905700	-2.5%	TRENT	5700	460000	8.9%	5233	5200	386700	-0.6%
INDUSINDBK	900	1929500	7.9%	834	800	1420000	-4.1%	ULTRACEMCO	13000	315100	11.5%	11658	10000	88650	-14.2%
INFY	1600	1950400	6.1%	1508	1200	1552000	-20.4%	WIPRO	250	10311000	2.4%	244	240	3561000	-1.7%

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

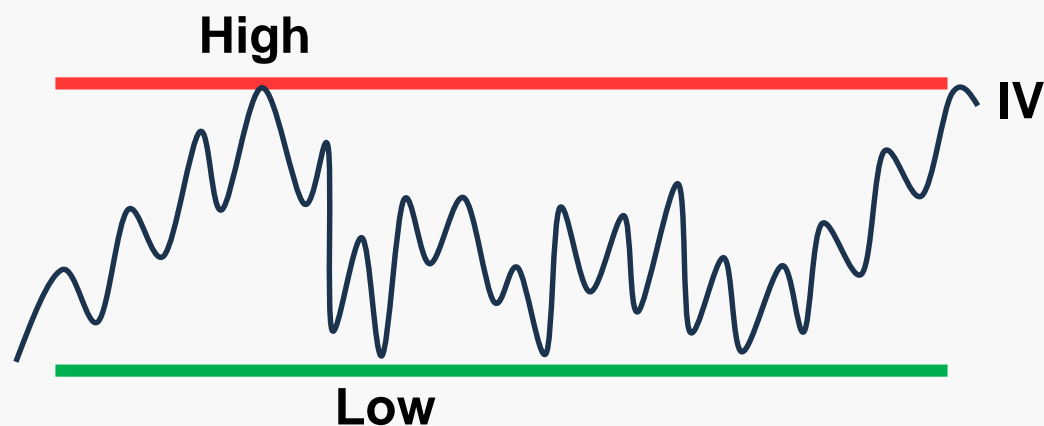
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

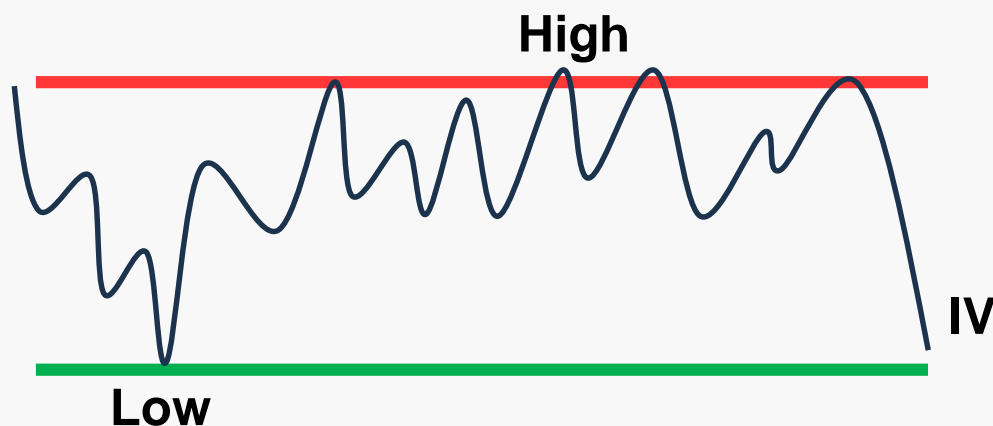
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

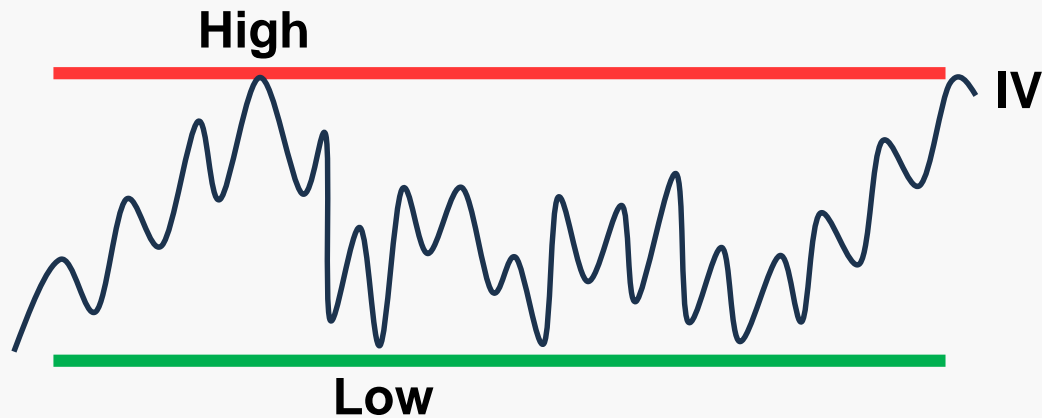


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

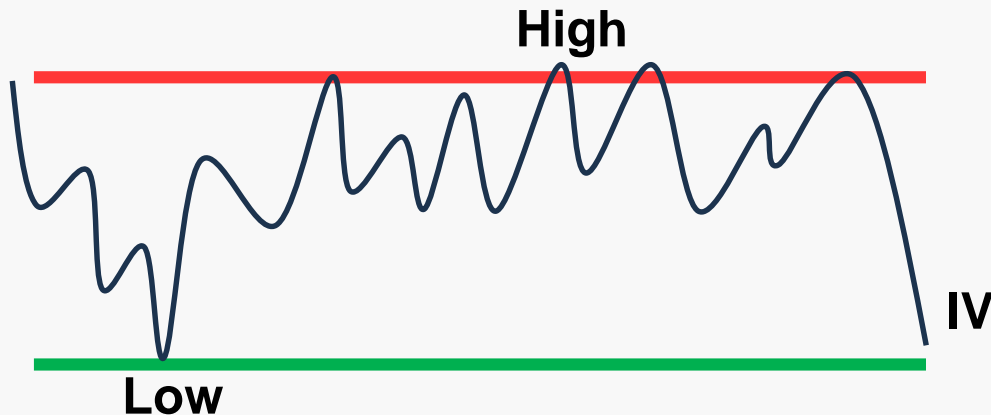


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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