



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	25,079	1.5%▲
Open Interest (OI)	1,59,78,750	6.4%▲
Change in OI (abs)	1,59,78,750	9,63,075▲
Premium / Discount (Abs)	17	32▼
Inference	Long Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	55,400	0.9%▲
Open interest (OI)	22,09,325	5.4%▲
Change in OI (abs)	22,09,325	1,13,355▲
Premium / Discount (Abs)	44	65▼
Inference	Long Build Up	

Volatility Insights

	Value	Change
India VIX Index	16.89	0.34▼
Nifty ATM IV (%)	14.38	0.7▼
Bank Nifty ATM IV (%)	15.24	0.6▼
PCR (Nifty)	1.19	0.30▲
PCR (Bank Nifty)	0.93	0.11▲

The Long Ratio for FII Index Futures **jump** at 45.6%, **up** from 38.2 % in the **last session..**

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NCC	1,66,66,325	11.8%	229.65	1.2%
LICHSGFIN	2,63,48,000	9.1%	627.55	1.4%
NTPC	10,22,29,500	8.6%	342.85	0.8%
PATANJALI	45,04,200	7.6%	1821	1.7%
APOLLOHOSP	28,61,750	7.5%	7096.5	2.2%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MUTHOOTFIN	50,00,875	41.7%	2112.2	-6.8%
CESC	2,84,04,250	9.0%	163.7	-2.6%
PERSISTENT	23,69,500	6.0%	5675.5	-1.9%
MARICO	1,88,90,400	5.7%	723.4	-0.3%
CHAMBLFERT	89,60,400	4.8%	638.8	-1.7%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
APOLLOTYRE	69,93,800	-11.7%	483.05	1.7%
SHREECEM	2,85,425	-6.6%	31465	2.7%
DEEPAKNTTR	9,29,100	-5.8%	2061.5	3.8%
NMDC	20,96,14,500	-4.8%	70.21	0.1%
HAL	77,83,650	-4.0%	4875.6	1.8%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
HINDCOPPER	4,17,93,150	-6.4%	227.63	-2.2%
IIFL	1,15,60,250	-6.0%	412	-0.4%
ABCAPITAL	6,24,72,600	-2.8%	215.55	-1.4%
CANBK	24,16,77,000	-2.7%	105.39	-0.6%
MCX	17,12,625	-2.3%	6224	-0.1%

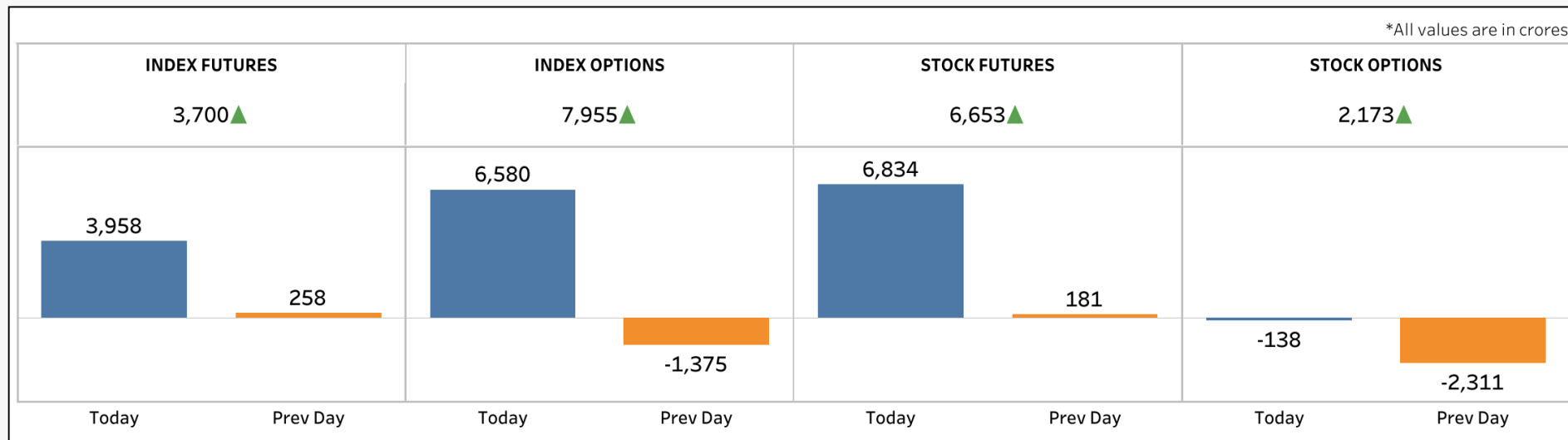
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

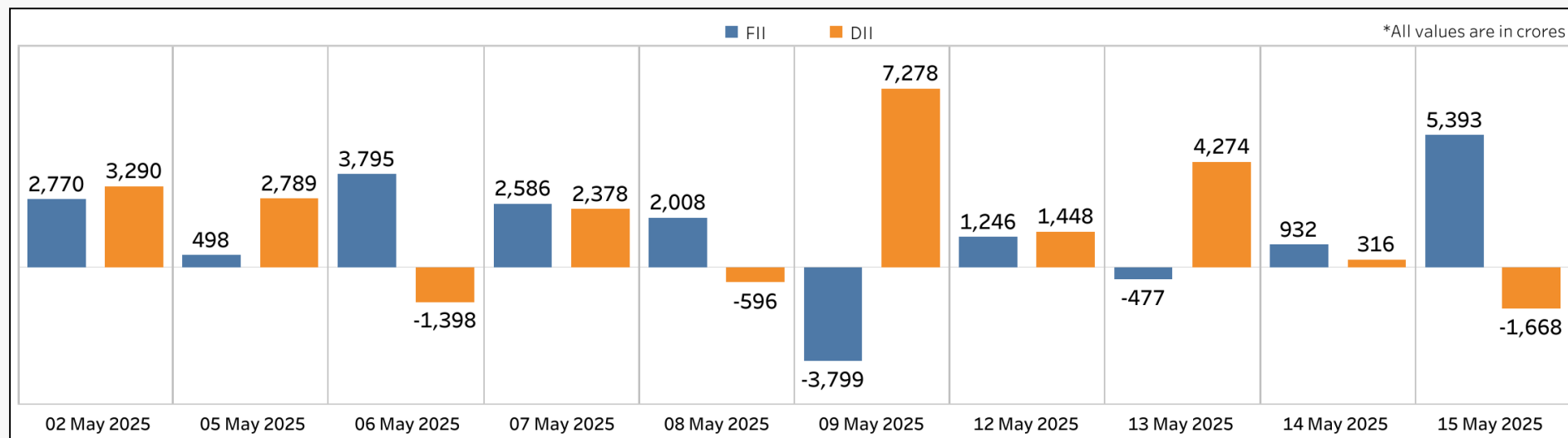
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
31,893 ▲	19,585 ▲	78,038 ▲	99,979 ▲	0	-17,581 ▼	-2,959 ▼	12,862 ▲
45,170	13,277	21,282	99,999	0	-192	-41	-529
	1,697		20		-3,000		-13,391
		-22,373			-17,773		
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
184,708	-13,521	203,164	1,921,456	70	30,648	45,637	-3,794,666
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
104,441 ▲	-8,305 ▼	-38,224 ▼	-65,275 ▼	-136,331 ▼	6,301 ▲	-36,852 ▼	-47,566 ▼
6,733		47,979	12,263	84,430	11,104		1,108
	-14,613				4,803		
-97,708	-6,308		-53,012	-51,901		-25,567	-46,458
						-62,419	
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-242,358	1,154	-203,623	1,659,523	57,581	-18,281	-45,178	213,687
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day

Daily Net Open Interest Change

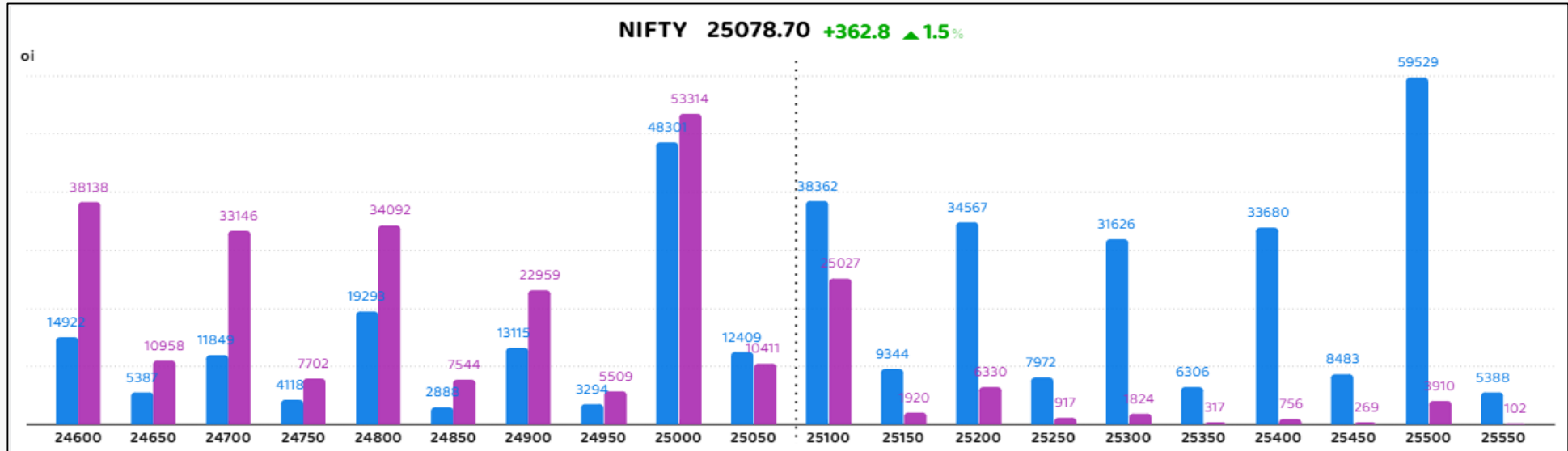


DII and FII Daily Cash Market Flows



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

Call  Put 



For the Nifty, the 25,500 Call and the 25,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 56,000 Call and the 55,000 Put saw the most amount of open interest.

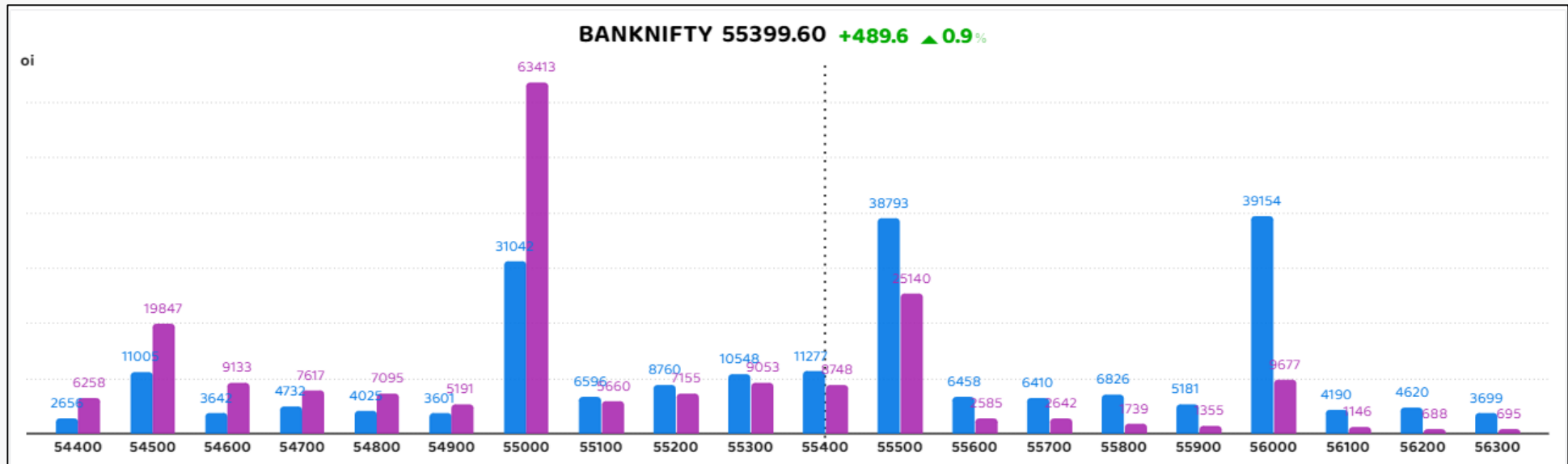
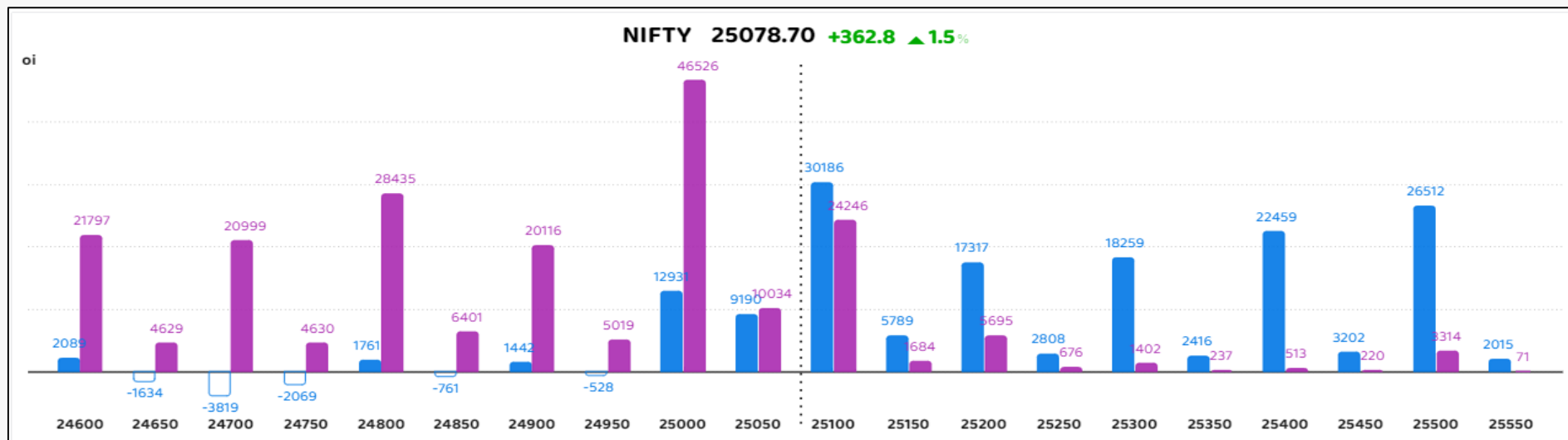


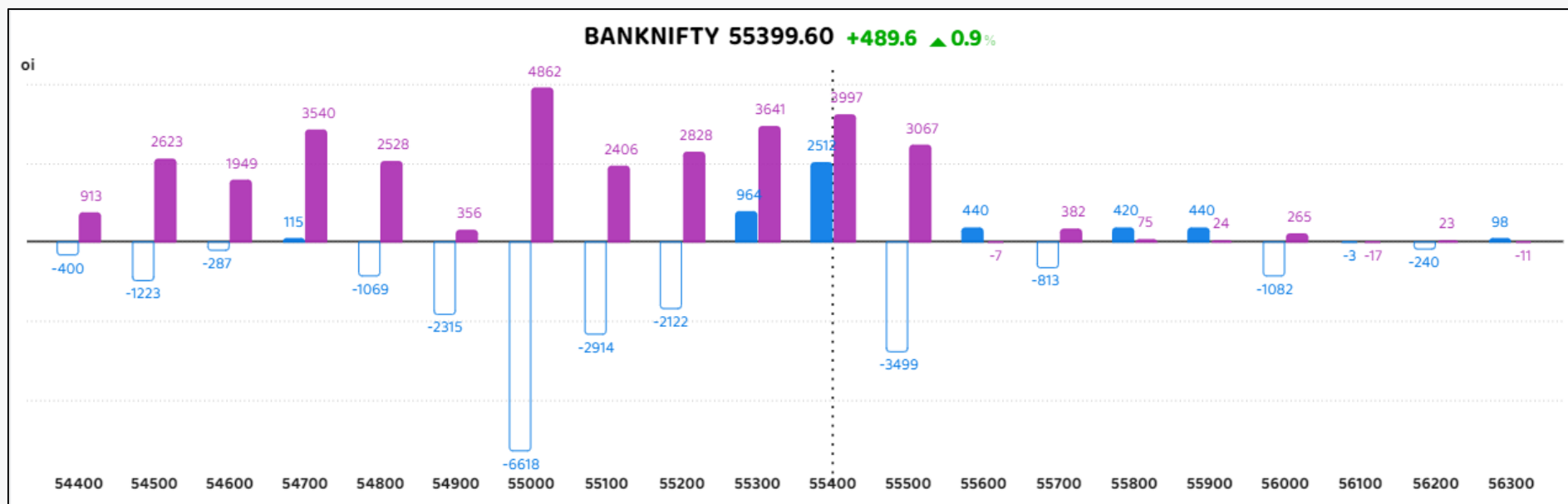
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,100 Call and the 25,000 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)
DIXON TECHNOLOGI	16433	1.9	45.5	53.0	1.8	85.3
CROM GREAVES CON	327.4	-1.2	41.6	49.4	17.9	75.0
RAMCO CEMENT/THE	1002.75	0.8	32.6	43.6	0.5	74.5
BAJAJ AUTO LTD	8326	2.8	27.4	36.4	2.1	73.7
ASTRAL LTD	1344	1.3	34.4	46.6	2.9	72.1

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
CENTRAL DEPOSITO	1337.2	0.1	27.3	60.7	27.1	0.6
INDIAN RENEWABLE	166.75	-0.6	42.9	69.2	42.7	0.9
TATA TECHNOLOGIE	720	1.9	30.0	54.4	29.6	1.6
HDFC LIFE INSURA	751.2	1.3	22.0	80.6	19.6	3.9
ADANI GREEN ENER	967.9	0.1	46.8	74.3	45.4	5.0

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
PHOENIX MILLS	1555.1	0.9	53.5	64.3	33.5	96.5
DIVI LABS LTD	6214.5	0.0	36.9	45.9	18.2	95.6
CROM GREAVES CON	327.4	-1.2	41.6	49.4	17.9	90.9
DEEPAK NITRITE	2049.4	3.5	38.0	49.1	21.4	89.1
ZYDUS LIFESCIENC	904.7	0.1	34.0	53.1	21.1	88.8

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
CENTRAL DEPOSITO	1337.2	0.1	27.3	60.7	27.1	0.9
MANAPPURAM FINAN	229.36	-1.5	11.2	64.2	2.7	2.0
ICICI PRUDENTIAL	613	0.8	19.4	41.4	15.3	2.4
COAL INDIA LTD	404.65	0.4	22.5	53.6	4.3	2.5
ADITYA BIRLA FAS	277.4	0.1	18.4	66.6	9.9	2.5

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
COMPUTER AGE MAN	3726.4	2.1	14594	3256	4.5
PAGE INDUSTRIES	46940	1.1	13977	3325	4.2
SUPREME INDS LTD	3642.7	2.0	7652	1847	4.1
AVENUE SUPERMART	4073.5	0.6	7822	2120	3.7
YES BANK LTD	21.51	2.6	31229	8530	3.7

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
RAMCO CEMENT/THE	1002.75	0.8	2247	6334	2.8
PERSISTENT SYS	5653.5	-1.8	34648	44785	1.3
ESCORTS KUBOTA L	3543.4	0.5	2607	2658	1.0
TITAN CO LTD	3636.8	1.4	26665	27032	1.0
BANK OF INDIA	114.05	0.2	2177	2111	1.0

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
MUTHOOT FINANCE	2104.1	-6.9	24312	24312	100.0
VARUN BEVERAGES	506.6	-0.7	20968	20968	100.0
SYNGENE INTERNAT	638.35	-0.4	15749	15749	100.0
CHAMBAL FERTILIS	636.1	-1.8	9926	9926	100.0
PATANJALI FOODS	1811.1	1.6	6478	6478	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
PRESTIGE ESTATES	1418.9	1.7	4109	4109	100.0
MUTHOOT FINANCE	2104.1	-6.9	10843	10843	100.0
TUBE INVESTMENTS	2910.2	-4.2	2771	2771	100.0
SBI LIFE INSURAN	1784.6	1.7	10211	10211	100.0
HERO MOTOCORP LT	4325	6.3	21968	21968	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
MUTHOOT FINANCE	2104.1	-6.9	85596	86419	99.1

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
SHREE CEMENT	31400	2.5	4908	1612	3.0
MUTHOOT FINANCE	2104.1	-6.9	24312	8456	2.9
PAGE INDUSTRIES	46940	1.1	3340	1241	2.7
TORRENT POWER LT	1432.7	-1.2	2940	1152	2.6
JUBILANT FOODWOR	683.75	-1.4	6593	2848	2.3

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
SHREE CEMENT	31400	2.5	3012	1245	2.4
YES BANK LTD	21.51	2.6	10789	5117	2.1
ESCORTS KUBOTA L	3543.4	0.5	3802	1883	2.0
HERO MOTOCORP LT	4325	6.3	21968	11626	1.9
JUBILANT FOODWOR	683.75	-1.4	4386	2354	1.9

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
SHREE CEMENT	31400	2.5	48825	4713	10.4
PAGE INDUSTRIES	46940	1.1	13977	1831	7.6
EICHER MOTORS	5466	0.4	93167	18416	5.1
JUBILANT FOODWOR	683.75	-1.4	31505	6441	4.9
MUTHOOT FINANCE	2104.1	-6.9	85596	18039	4.7

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SHREE CEMENT	31400	2.5	13711	1990	6.9
MUTHOOT FINANCE	2104.1	-6.9	42840	8347	5.1
LIC HOUSING FIN	624.95	1.4	23369	5396	4.3
JUBILANT FOODWOR	683.75	-1.4	19669	4839	4.1
HERO MOTOCORP LT	4325	6.3	84587	21149	4.0

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	2025900	3.2%	2520	2600	2368500	3.2%	ITC	450	7345600	4.0%	433	430	4942400	-0.6%
ADANIPTS	1400	1738000	-0.4%	1406	1200	860000	-14.7%	JIOFIN	300	6481200	9.6%	274	250	4347750	-8.7%
APOLLOHOSP	7000	151125	-1.0%	7073	6150	89500	-13.0%	JSWSTEEL	1100	874800	5.9%	1038	950	1028700	-8.5%
ASIANPAINT	2500	1244800	7.3%	2330	2300	574800	-1.3%	KOTAKBANK	2200	1530400	4.4%	2106	2000	670400	-5.1%
AXISBANK	1220	3213750	0.9%	1209	1200	1681875	-0.8%	LT	3500	915900	-3.3%	3618	3600	521850	-0.5%
BAJAJ-AUTO	8500	177600	2.1%	8326	8000	100275	-3.9%	M&M	3200	1099350	1.8%	3144	2900	543025	-7.8%
BAJAJFINSV	2100	2732000	2.8%	2042	1900	464000	-6.9%	MARUTI	12000	314550	-7.4%	12952	12000	267550	-7.4%
BAJFINANCE	10000	744875	8.8%	9189	9000	538125	-2.1%	NESTLEIND	2500	541600	4.2%	2398	2200	102600	-8.3%
BEL	350	8344800	-0.1%	350	320	6235800	-8.7%	NTPC	370	9489000	8.2%	342	380	2100000	11.1%
BHARTIARTL	1900	3540175	1.8%	1867	1800	1005575	-3.6%	ONGC	240	10523975	-3.1%	248	240	3665200	-3.1%
CIPLA	1600	1652625	6.5%	1502	1300	433550	-13.5%	POWERGRID	330	4622400	10.1%	300	300	1657800	0.1%
COALINDIA	400	5259450	-1.1%	405	450	2144100	11.2%	RELIANCE	1450	7391000	-0.3%	1454	1300	5081500	-10.6%
DRREDDY	1240	1276250	0.3%	1236	1150	912500	-7.0%	SBILIFE	1780	1672875	-0.3%	1785	1720	597750	-3.6%
EICHERMOT	6000	303100	9.8%	5466	5300	158025	-3.0%	SBIN	800	12688500	-1.0%	808	800	5306250	-1.0%
ETERNAL	260	8272000	7.2%	243	230	4456000	-5.2%	SHRIRAMFIN	700	1664250	3.7%	675	600	866250	-11.1%
GRASIM	3120	318750	10.5%	2825	2340	127000	-17.2%	SUNPHARMA	1900	2158450	9.2%	1740	1700	774900	-2.3%
HCLTECH	1700	1157100	0.2%	1696	1200	827750	-29.2%	TATACONSUM	1300	783408	13.3%	1147	1100	465576	-4.1%
HDFCBANK	2000	4807550	3.4%	1934	1800	2385350	-6.9%	TATAMOTORS	800	6717150	9.9%	728	700	4868050	-3.9%
HDFCLIFE	800	2160400	6.5%	751	720	1725900	-4.2%	TATASTEEL	160	24530000	1.7%	157	155	12243000	-1.5%
HEROMOTOCO	4500	459900	4.0%	4325	4200	324600	-2.9%	TCS	3600	891275	0.6%	3580	3400	497875	-5.0%
HINDALCO	680	2408000	2.8%	661	650	1663200	-1.7%	TECHM	1600	795600	-1.8%	1629	1500	621000	-7.9%
HINDUNILVR	2500	1407600	6.1%	2355	2400	577800	1.9%	TITAN	3500	355425	-3.8%	3637	3500	614425	-3.8%
ICICIBANK	1460	4235700	0.6%	1451	1400	2333100	-3.5%	TRENT	5700	519300	2.2%	5578	5200	416300	-6.8%
INDUSINDBK	850	2999500	8.9%	781	800	2349000	2.5%	ULTRACEMCO	13000	310500	9.3%	11894	10000	89250	-15.9%
INFY	1600	2342400	-0.8%	1613	1500	1288000	-7.0%	WIPRO	300	9978000	16.9%	257	240	2595000	-6.5%

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

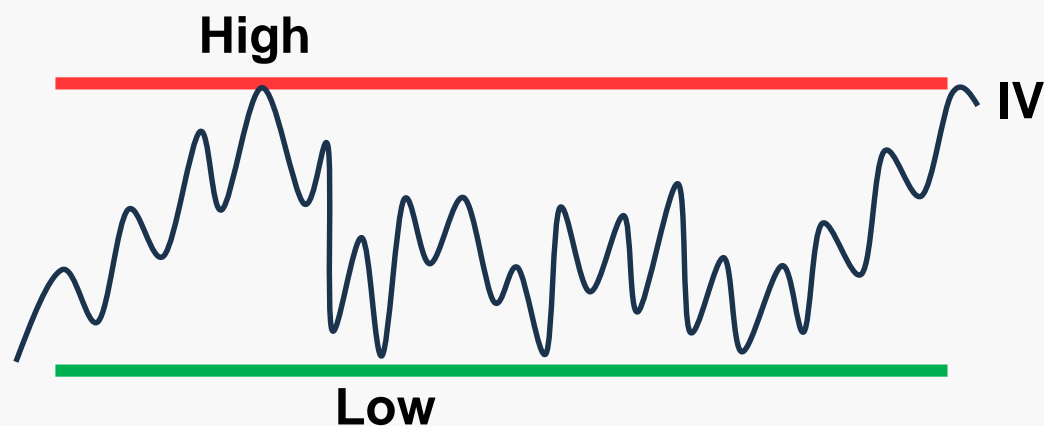
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

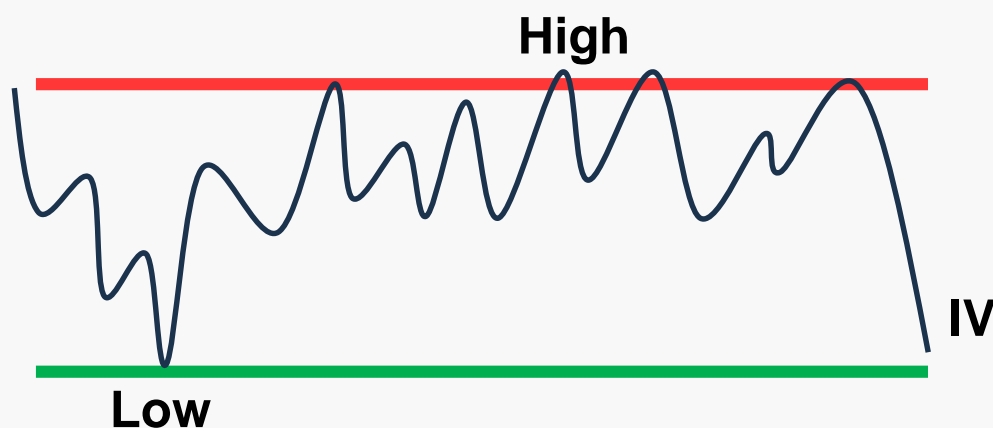
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

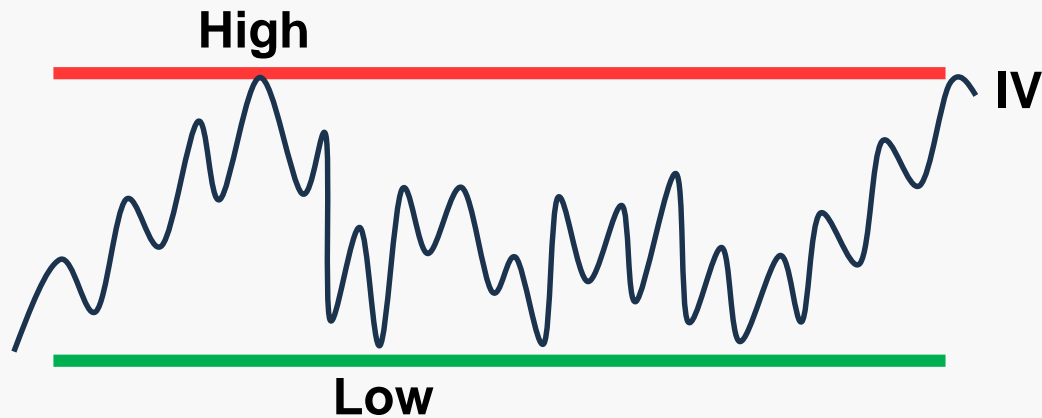


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

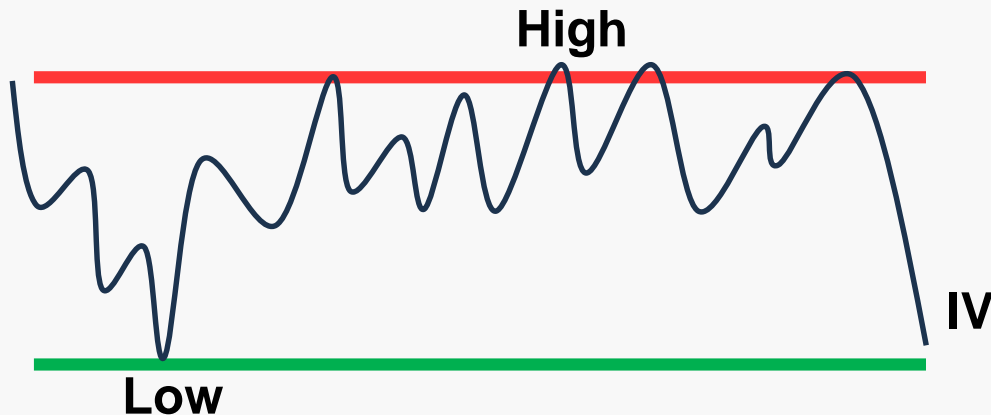


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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