



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	25,072	0.3%▲
Open Interest (OI)	1,94,99,325	5.0%▲
Change in OI (abs)	1,94,99,325	9,20,025▲
Premium / Discount (Abs)	27	6▲
Inference	Long Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	56,501	0.7%▲
Open interest (OI)	22,30,890	1.5%▼
Change in OI (abs)	22,30,890	34565▼
Premium / Discount (Abs)	39	0▲
Inference	Short Covering	

Volatility Insights

	Value	Change
India VIX Index	13.64	0.41▼
Nifty ATM IV (%)	13.91	1.0▼
Bank Nifty ATM IV (%)	14.70	0.7▼
PCR (Nifty)	0.85	0.19▼
PCR (Bank Nifty)	0.92	0.01▲

The FII Long Ratio in Index Futures **rose** to 22.9%, **up** from 22.7% in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KAYNES	7,83,600	12.4%	5807.5	0.3%
MANKIND	9,43,650	12.1%	2314.1	0.5%
BPCL	5,13,70,350	11.3%	319.4	1.9%
DALBHARAT	36,96,950	8.7%	2078.4	0.1%
MGL	32,26,000	7.3%	1412.8	0.7%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KPITTECH	49,58,400	38.6%	1298	-6.8%
OIL	2,09,50,525	34.0%	447.25	-5.6%
NTPC	14,86,54,500	18.4%	330.4	-1.1%
JSL	66,46,175	11.2%	678.15	-1.5%
POWERGRID	9,73,70,100	9.5%	286.6	-1.7%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
IGL	1,80,48,250	-12.0%	207.05	0.3%
NMDC	24,61,45,500	-11.3%	69.42	2.2%
IEX	4,55,40,000	-11.0%	187.74	2.9%
HINDCOPPER	3,18,95,400	-9.9%	258.19	2.6%
IREDA	4,34,67,100	-9.5%	166.2	0.2%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MANAPPURAM	3,18,87,000	-9.4%	269.84	-0.3%
MCX	20,93,450	-6.6%	8229.5	-0.7%
BIOCON	3,59,45,000	-6.3%	350.8	-0.6%
BEL	10,16,31,000	-4.2%	418	-0.6%
ABFRL	5,38,38,200	-4.0%	74.17	-1.1%

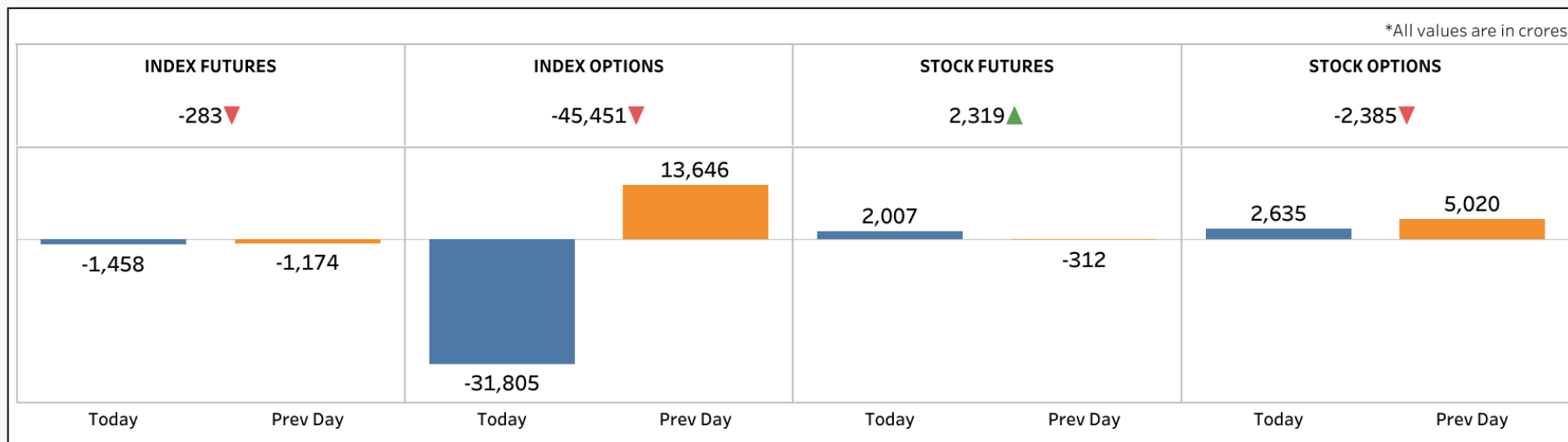
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

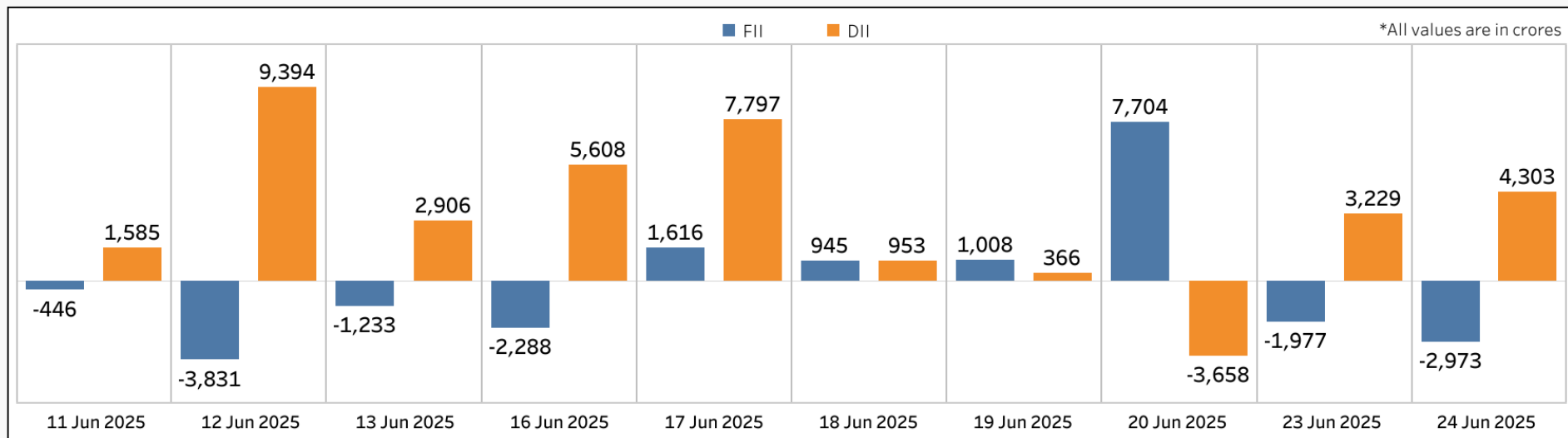
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-124,327 ▼	-425 ▼	-132,671 ▼	3,820 ▲	0	211 ▲	-5,900 ▼	31,923 ▲
24,018	-6,764	48,694	18,948	0	2,082	7,600	18,735
-100,309	-6,339	-83,977	15,128	0	1,871		-13,188
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
78,432	-109,471	132,427	1,508,636	70	34,509	25,187	-3,941,349
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
29,319 ▲	-6,447 ▼	132,683 ▲	-17,411 ▼	95,007 ▲	6,661 ▲	5,891 ▲	-18,332 ▼
61,433	3,798	45,963	9,996	38,876	884	36,315	30,424
32,114	10,245	-86,720	-7,415	-56,131	-5,777	-30,268	-11,936
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-385,436	71,798	-284,895	2,056,841	306,935	3,164	127,281	375,872
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



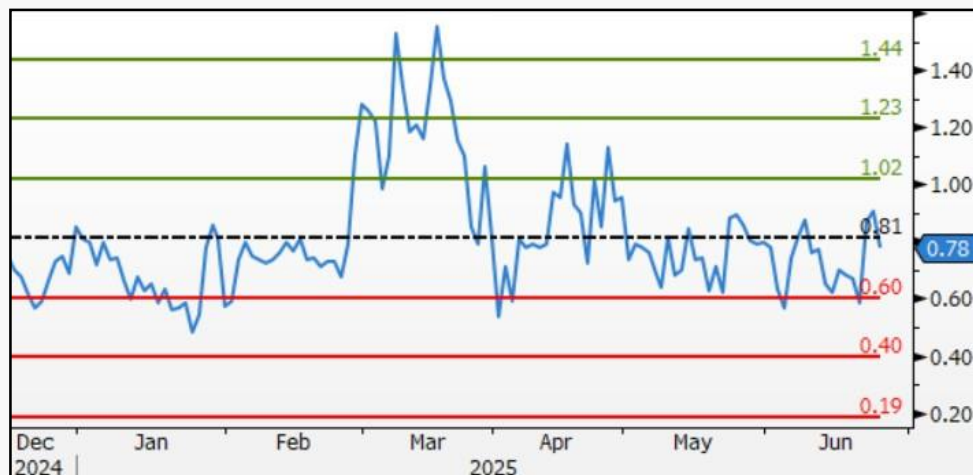
Nifty



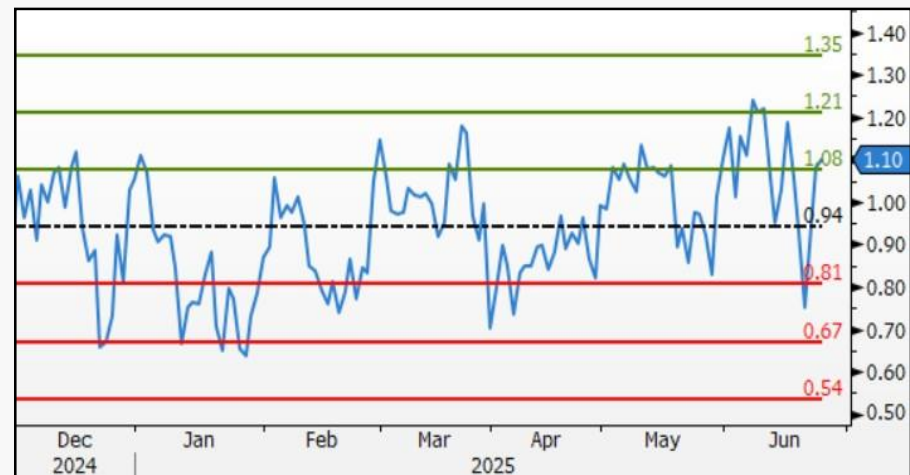
Bank Nifty



Fin Nifty

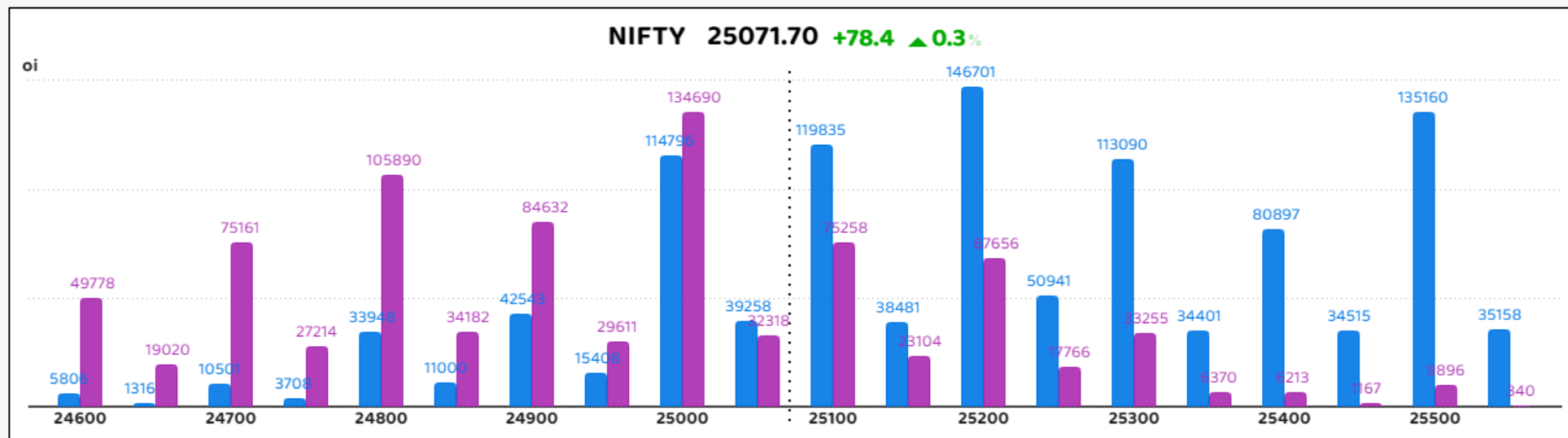


Midcap Select Nifty



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

Call  Put 



For the Nifty, the 25,200 Call and the 25,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 57,000 Call and the 56,000 Put saw the most amount of open interest.

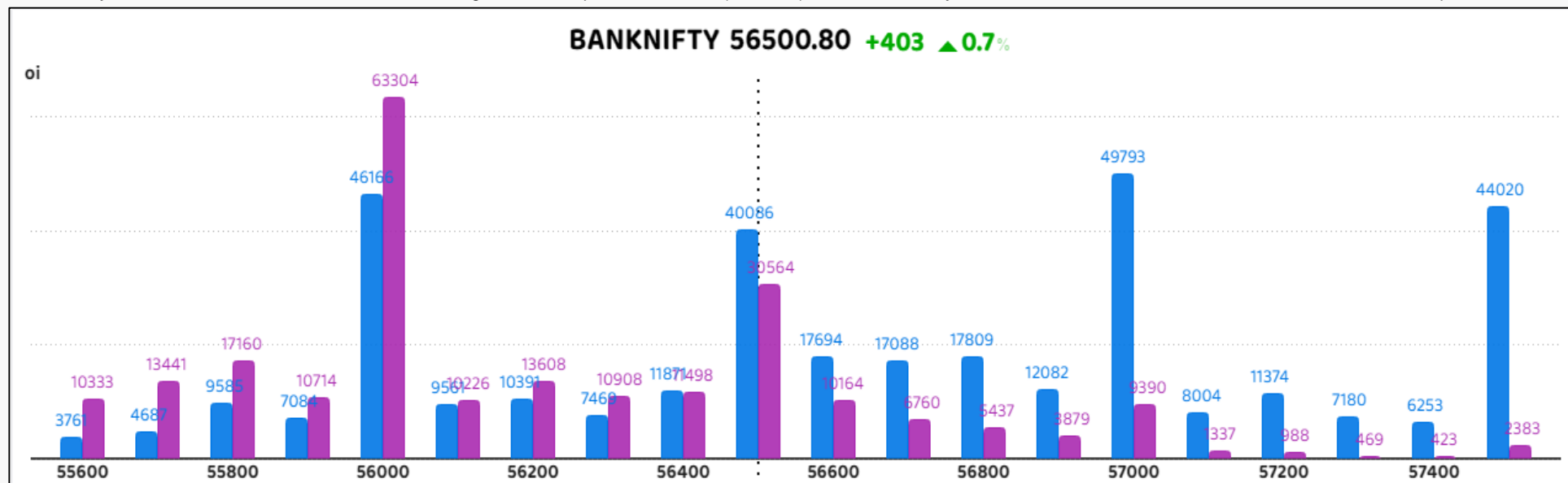
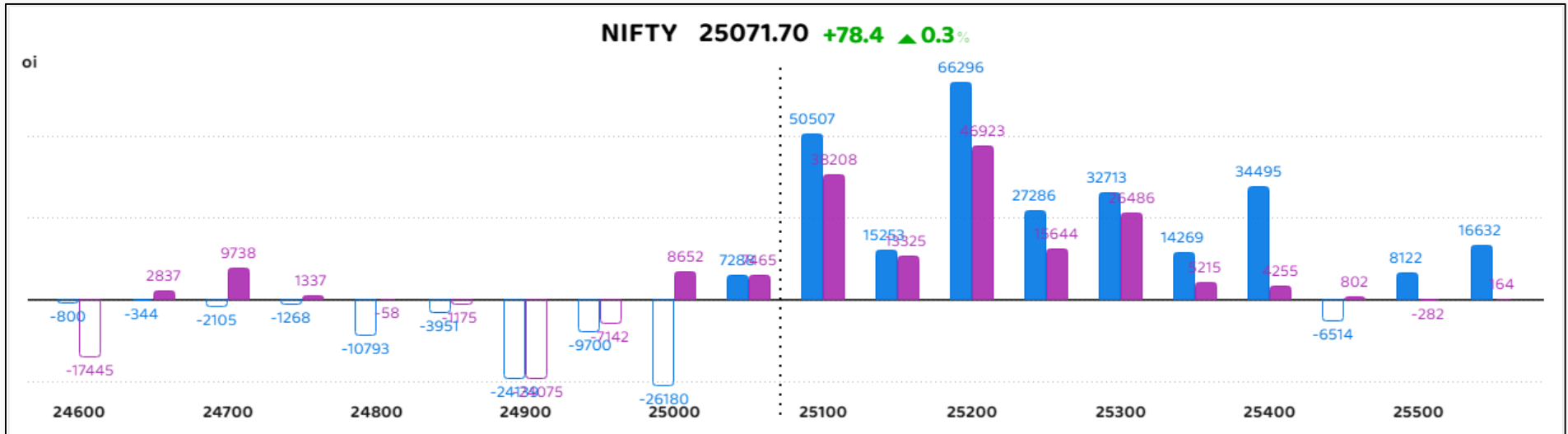


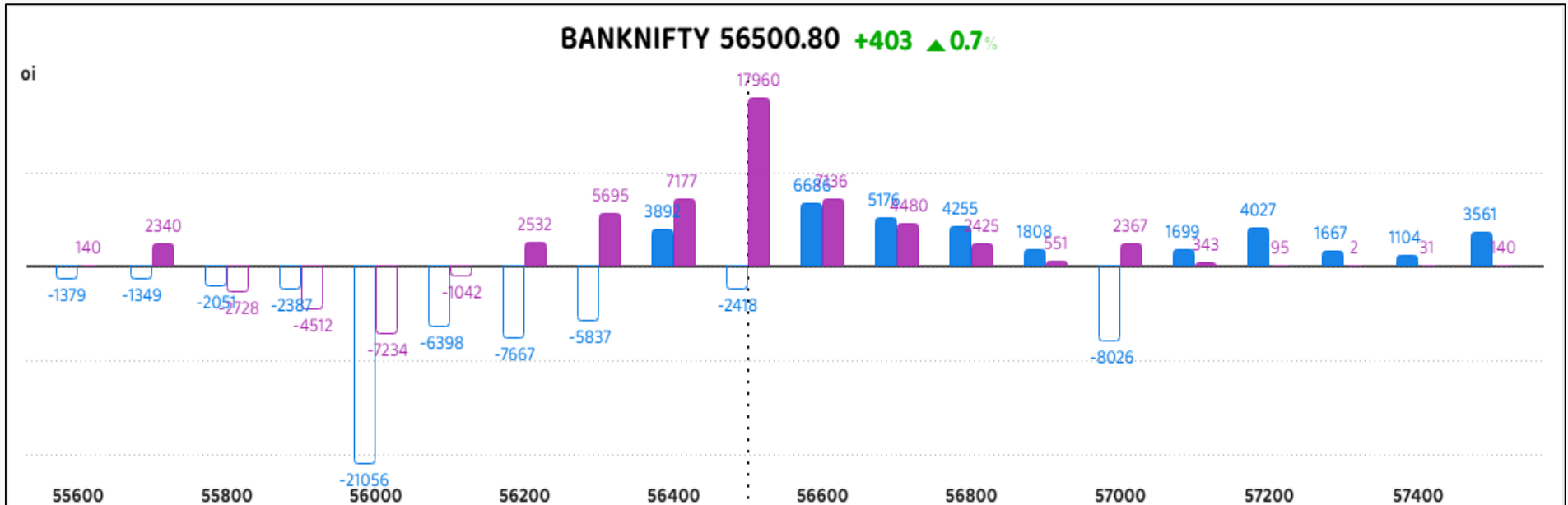
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,200 Call and the 25,200 Put



For the Bank Nifty, the biggest open interest changes were seen at the 56,000 Call & the 56,500 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ASTRAL LTD	1501	0.2	31.0	38.4	2.9	79.1
POWER GRID CORP	285.95	-1.5	23.3	34.5	1.2	66.3
MARUTI SUZUKI	12611	-0.7	19.8	29.9	0.4	65.8
DIXON TECHNOLOGIES	14506	-0.4	35.1	53.0	1.8	65.0
BOSCH LTD	31500	-0.2	23.7	34.9	3.3	64.5

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HINDUSTAN ZINC	442.9	0.5	31.2	54.2	31.2	0.0
POWER FINANCE	413.7	0.7	27.5	51.5	27.5	0.0
RAIL VIKAS NIGAM	398	1.7	33.9	45.7	33.9	0.0
IRCTC	762	0.5	21.9	44.6	21.9	0.0
ONE 97 COMMUNICATIONS	898.5	1.7	36.8	59.8	36.8	0.0

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
L&T FINANCE LTD	200.06	3.5	35.1	67.0	5.4	69.5
ASTRAL LTD	1501	0.2	31.0	38.4	2.9	68.0
INDUSIND BANK	831.95	-0.9	32.1	77.2	0.5	67.3
OBEROI REALTY	1988	2.7	35.6	50.6	23.1	66.5
HCL TECH LTD	1691.8	-0.7	25.2	46.0	17.9	66.1

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
HINDUSTAN ZINC	442.9	0.5	31.2	54.2	31.2	0.0
POWER FINANCE	413.7	0.7	27.5	51.5	27.5	0.0
RAIL VIKAS NIGAM	398	1.7	33.9	45.7	33.9	0.0
IRCTC	762	0.5	21.9	44.6	21.9	0.0
ONE 97 COMMUNICATIONS	898.5	1.7	36.8	59.8	36.8	0.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
TUBE INVESTMENTS	2856.7	-0.4	8911	1079	8.3
RAIL VIKAS NIGAM	398	1.7	13695	2393	5.7
ALKEM LABORATORIES	4811	1.1	8563	1518	5.6
KAYNES TECHNOLOGY	5798	0.3	15330	3220	4.8
BOSCH LTD	31500	-0.2	7894	1741	4.5

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
FORTIS HEALTHCARE	765.4	1.4	2986	3234	1.1
INDUSIND BANK	831.95	-0.9	96321	82206	0.9
MCX INDIA LTD	8216	-0.9	132377	112323	0.8
COLGATE PALMOLIVE	2424.8	0.6	10669	7999	0.7
BHARAT ELECTRONICS	418.5	-0.6	79942	57548	0.7

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
MANKIND PHARMA	2307.5	0.3	4217	4217	100.0
OIL INDIA LTD	445.85	-5.6	11801	11801	100.0
SUPREME INDS LTD	4472.9	-0.2	5712	5712	100.0
GLENMARK PHARMA	1683.1	-0.1	12143	12143	100.0
KAYNES TECHNOLOGY	5798	0.3	4010	4010	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
BHARAT DYNAMICS	1851.7	-4.1	6326	6326	100.0
L&T FINANCE LTD	200.06	3.5	7101	7101	100.0
BLUE STAR LTD	1631	1.2	1817	1817	100.0
POONAWALLA FINCORP	444.05	1.5	3550	3550	100.0
GLENMARK PHARMA	1683.1	-0.1	10470	10566	99.1

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
POONAWALLA FINCORP	444.05	1.5	25509	25509	100.0
PIRAMAL PHARMA	199.97	2.9	4457	4617	96.5
JIO FINANCIAL	300.8	2.6	99999	104205	96.0

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
KPIT TECHNOLOGIES	1306.1	-6.1	11511	4129	2.8
KAYNES TECHNOLOGY	5798	0.3	4010	2093	1.9
MANKIND PHARMA	2307.5	0.3	4217	2234	1.9
SUPREME INDS LTD	4472.9	-0.2	5712	3066	1.9
HINDUSTAN ZINC	442.9	0.5	31399	16983	1.8

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
KPIT TECHNOLOGIES	1306.1	-6.1	5040	1962	2.6
POLYCAB INDIA LTD	6343.5	0.9	10397	4178	2.5
FORTIS HEALTHCARE	765.4	1.4	2729	1256	2.2
HINDUSTAN ZINC	442.9	0.5	15276	7703	2.0
KEI INDUS LTD	3839.6	2.1	2694	1416	1.9

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
AMBUJA CEMENTS	554.2	3.5	46094	8370	5.5
TITAGARH RAIL	922.85	5.4	67223	13689	4.9
ADANI PORTS	1389.5	2.6	179807	42404	4.2
SIEMENS LTD	3159.8	2.2	178907	42924	4.2
DELHIVERY LTD	377.05	4.6	27565	6797	4.1

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
PAGE INDUSTRIES	46270	1.8	5580	1117	5.0
KPIT TECHNOLOGIES	1306.1	-6.1	21004	4323	4.9
TITAGARH RAIL	922.85	5.4	21331	4415	4.8
AMBUJA CEMENTS	554.2	3.5	15316	3280	4.7
POONAWALLA FINCORP	444.05	1.5	9513	2063	4.6

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	2600	1219500	3.8%	2506	2800	492900	11.7%	ITC	430	7873600	3.8%	414	420	3449600	1.4%
ADANIPTS	1500	1470800	8.0%	1390	1400	908000	0.8%	JIOFIN	310	5086950	3.1%	301	290	4489650	-3.6%
APOLLOHOSP	7200	246625	2.8%	7006	6800	117375	-2.9%	JSWSTEEL	1020	969300	1.3%	1007	980	689175	-2.7%
ASIANPAINT	2280	1661000	0.2%	2275	2260	802400	-0.7%	KOTAKBANK	2300	697200	3.4%	2224	2100	612400	-5.6%
AXISBANK	1220	4552500	-0.1%	1221	1200	1295000	-1.7%	LT	3740	1183800	3.8%	3605	3600	475350	-0.1%
BAJAJ-AUTO	8790	425550	4.9%	8377	8390	127350	0.2%	M&M	3200	968275	1.6%	3150	3000	834750	-4.8%
BAJAJFINSV	2100	1686000	4.5%	2009	2000	471000	-0.5%	MARUTI	13000	382800	3.1%	12611	12500	164200	-0.9%
BAJFINANCE	1000	5661250	9.1%	917	880	2833750	-4.0%	NESTLEIND	2380	293400	0.6%	2366	2200	184200	-7.0%
BEL	430	5811150	2.7%	419	400	7387200	-4.4%	NTPC	340	10249500	3.0%	330	340	2757000	3.0%
BHARTIARTL	1880	2888000	-2.8%	1934	1880	2019700	-2.8%	ONGC	255	18385675	4.5%	244	240	2412025	-1.6%
CIPLA	1600	885625	6.5%	1502	1320	545350	-12.1%	POWERGRID	300	6775200	4.9%	286	270	1585800	-5.6%
COALINDIA	400	5767650	1.9%	393	400	2768850	1.9%	RELIANCE	1500	4678500	3.4%	1451	1420	2097000	-2.1%
DRREDDY	1300	1158750	-2.8%	1337	1300	957500	-2.8%	SBILIFE	1860	1137375	0.9%	1843	1800	462000	-2.3%
EICHERMOT	5500	202475	-2.3%	5629	5500	201250	-2.3%	SBIN	820	9743250	3.1%	795	800	4878750	0.6%
ETERNAL	270	8140000	5.9%	255	240	5460000	-5.9%	SHRIRAMFIN	700	1425000	3.5%	676	660	774000	-2.4%
GRASIM	2700	185750	-2.9%	2781	2700	231250	-2.9%	SUNPHARMA	1700	2267650	2.3%	1662	1680	645750	1.1%
HCLTECH	1720	1154300	1.7%	1692	1640	451500	-3.1%	TATACONSUM	1200	836304	8.3%	1108	1080	190608	-2.5%
HDFCBANK	2000	6109400	2.0%	1961	1940	2758250	-1.1%	TATAMOTORS	700	6144050	3.9%	674	650	2309450	-3.5%
HDFCLIFE	800	2501400	2.6%	780	780	892100	0.0%	TATASTEEL	161.4	15163500	4.3%	155	146.4	6336000	-5.4%
HEROMOTOCO	4400	677250	2.5%	4293	4200	171300	-2.2%	TCS	3500	1820525	3.2%	3390	3400	697025	0.3%
HINDALCO	700	2422000	4.6%	669	650	1146600	-2.9%	TECHM	1700	874800	1.4%	1677	1600	756000	-4.6%
HINDUNILVR	2400	2004000	6.0%	2263	2300	582000	1.6%	TITAN	3600	331800	2.1%	3526	3400	310625	-3.6%
ICICIBANK	1470	4239200	3.2%	1424	1450	1502900	1.8%	TRENT	6200	378300	2.4%	6058	5800	306600	-4.3%
INDUSINDBK	820	3733500	-1.4%	832	800	2620000	-3.8%	ULTRACEMCO	12000	175200	3.6%	11579	9800	117350	-15.4%
INFY	1640	2356800	3.7%	1582	1600	1268400	1.2%	WIPRO	270	6096000	1.9%	265	260	4947000	-1.9%

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

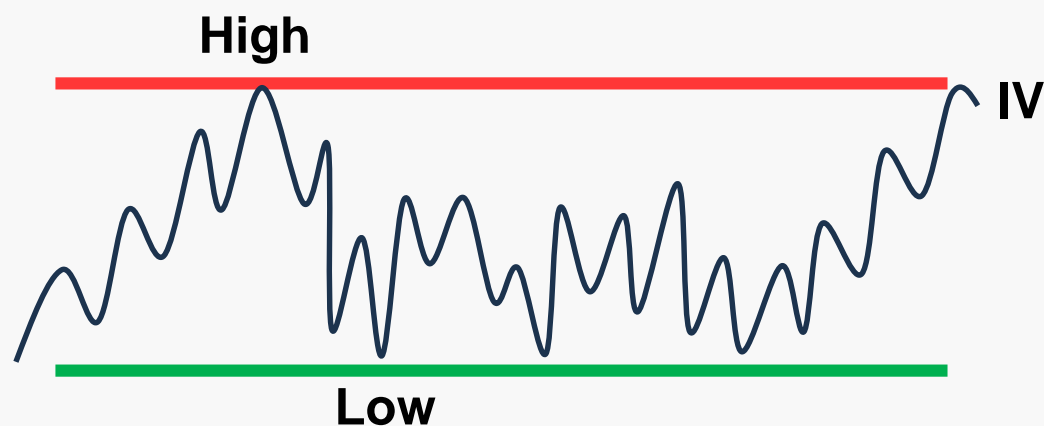
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

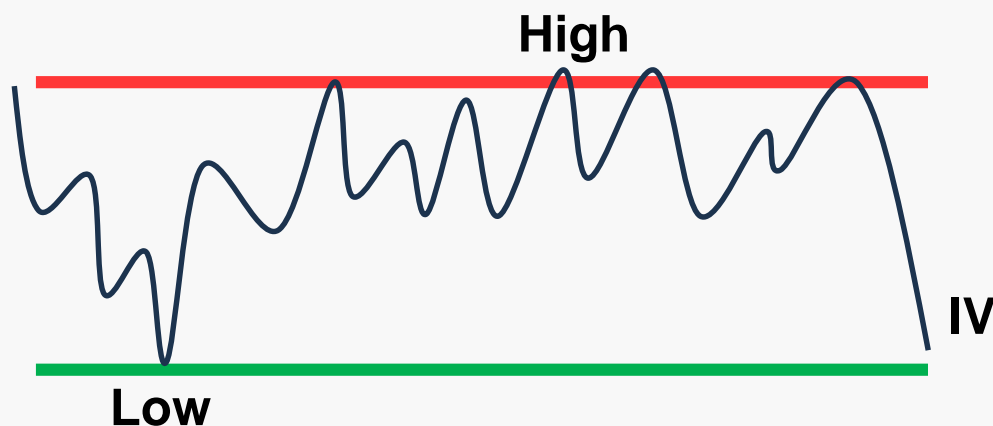
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

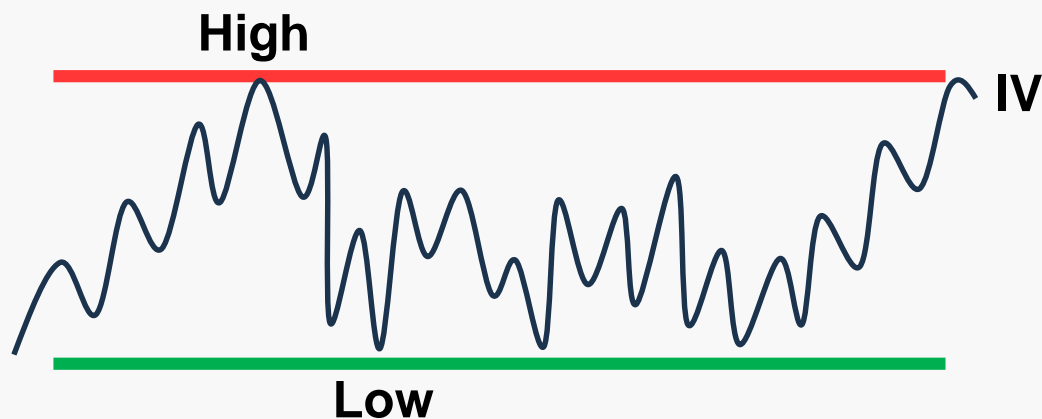


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

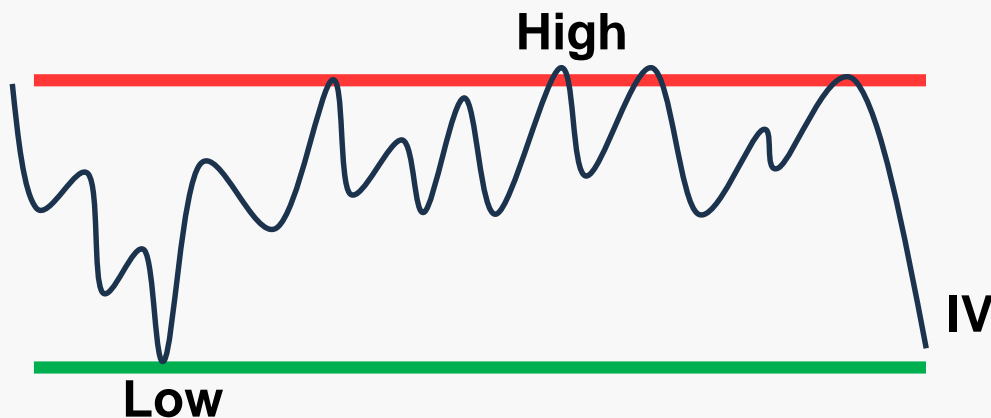


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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