



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	25,511	0.3% ▲
Open Interest (OI)	1,79,29,050	0.1% ▲
Change in OI (abs)	1,79,29,050	26,400 ▲
Premium / Discount (Abs)	87	6 ▼
Inference	Long Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	55,880	0.3% ▲
Open interest (OI)	24,02,015	5.6% ▼
Change in OI (abs)	24,02,015	1,41,750 ▼
Premium / Discount (Abs)	152	54 ▼
Inference	Short Covering	

Volatility Insights

	Value	Change
India VIX Index	9.89	0.4 ▼
Nifty ATM IV (%)	6.98	1.9 ▼
Bank Nifty ATM IV (%)	8.90	1.0 ▼
PCR (Nifty)	1.16	0.05 ▼
PCR (Bank Nifty)	1.10	0.01 ▲

The FII Long Ratio in Index Futures **rose** to 14 %, **up** from 13.2 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MANKIND	18,71,325	17.2%	2650.2	2.8%
IEX	5,45,32,500	17.1%	149.28	0.3%
HFCL	12,12,53,550	15.1%	77.98	3.7%
KFINTECH	18,40,950	14.9%	1146.6	2.3%
IREDA	4,30,14,600	12.4%	155.45	0.9%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
INDIANB	73,57,000	17.9%	697.8	-1.2%
SBICARD	1,62,88,000	11.4%	881.1	-1.0%
PIIND	20,19,500	6.1%	3712.4	-1.3%
PIDILITIND	41,47,500	5.6%	3068.2	-0.2%
BANKINDIA	6,44,59,200	4.9%	119.51	-0.6%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
COFORGE	1,03,30,500	-3.6%	1827.9	1.5%
DIXON	16,45,100	-3.3%	18360	1.2%
INFY	6,85,54,000	-3.1%	1547.3	1.5%
FORTIS	84,34,325	-3.0%	970.85	0.5%
LICHSGFIN	2,84,72,000	-2.9%	594.35	3.6%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
SBIN	10,35,08,250	-2.6%	856	-0.5%
MAZDOCK	33,01,200	-1.8%	2987.8	-0.5%
FEDERALBNK	9,37,10,000	-1.8%	198.92	-0.2%
BHARATFORG	95,24,000	-1.4%	1273.7	0.0%
MOTHERSON	17,09,88,450	-1.3%	109.14	-0.5%

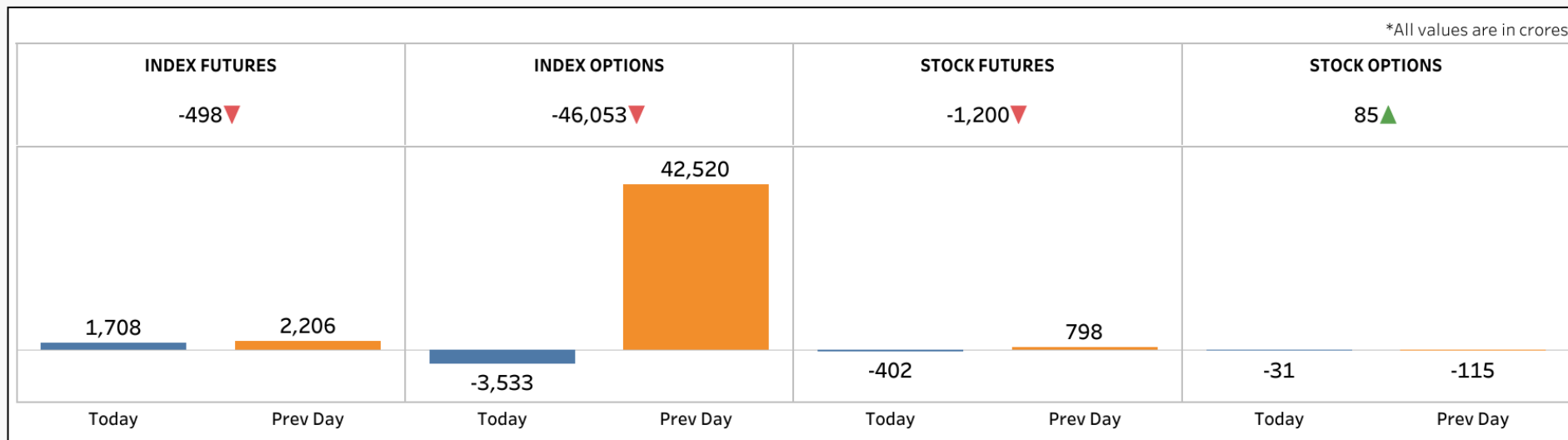
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

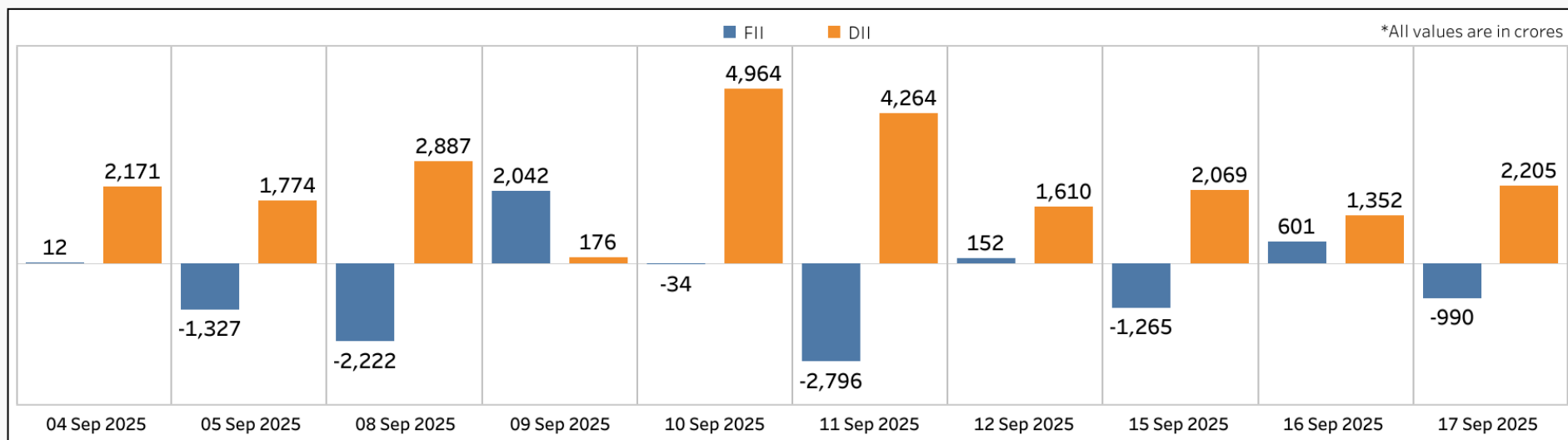
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-26,809 ▼	-2,694 ▼	7,850 ▲	-13,150 ▼	0	-487 ▼	10,400 ▲	11,446 ▲
26,202	8,901	11,595	9,986			10,400	14,472
-607		-18,474	-3,164	0	1,894	0	3,026
		-26,324		0	2,381		
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-10,844	-150,660	242,628	1,328,478	970	41,126	37,845	-4,049,182
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
4,084 ▲	1,687 ▲	-140,256 ▼	-2,035 ▼	22,723 ▲	1,494 ▲	122,004 ▲	3,739 ▲
		115,856		58,700		32,472	
				35,977	-5,873	-7,367	-458
-58,095	-4,922	-24,400	-10,850		-89,532		-4,197
-62,179	-6,609		-8,815				
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-102,782	112,818	-324,242	2,286,373	112,655	-3,284	43,768	434,331
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day

Daily Net Open Interest Change

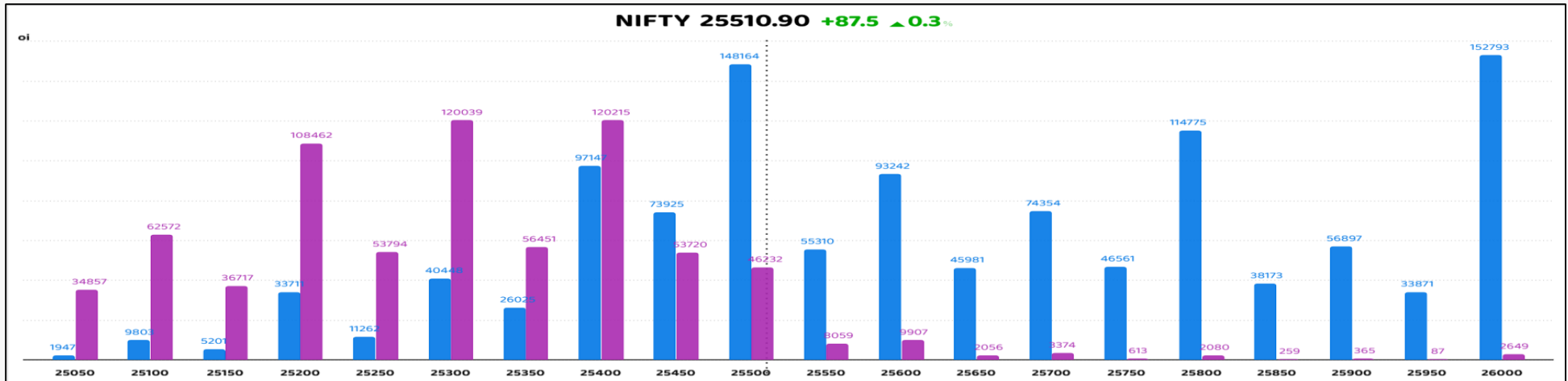


DII and FII Daily Cash Market Flows



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

Call  Put 



For the Nifty, the 26,000 call and the 25,400 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.

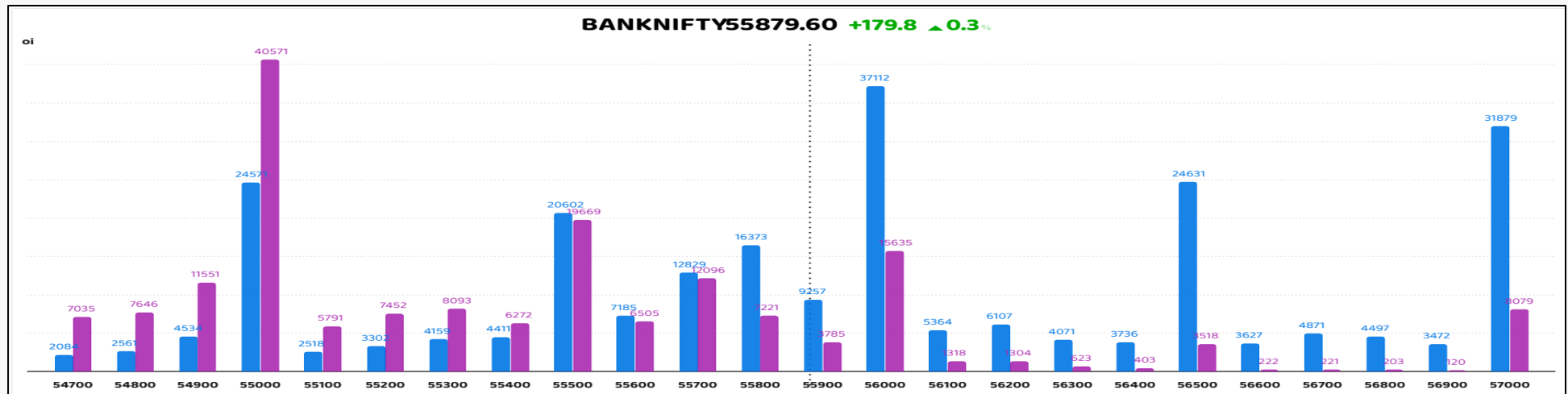
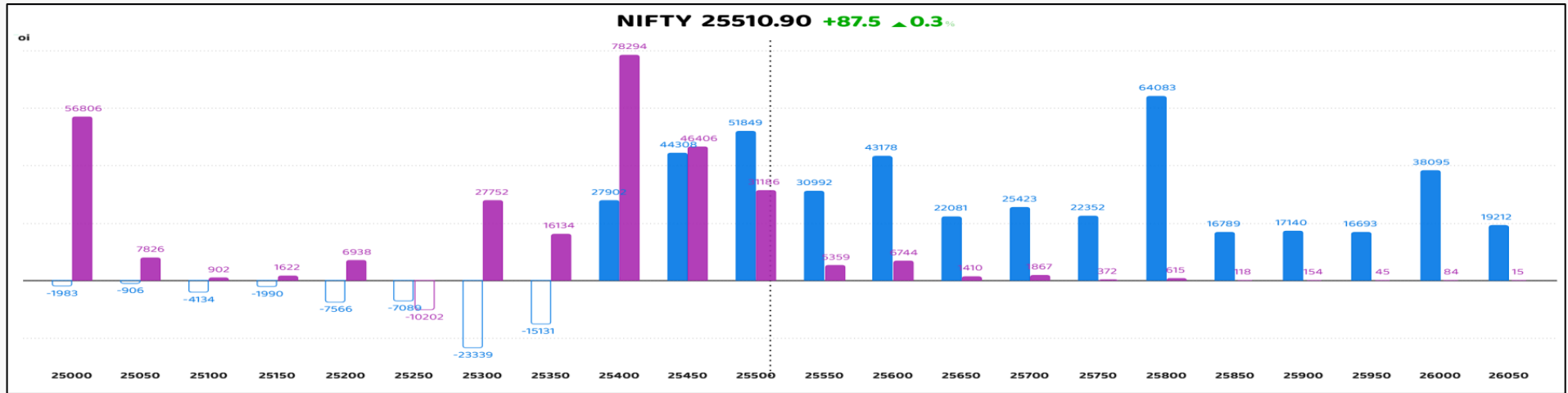


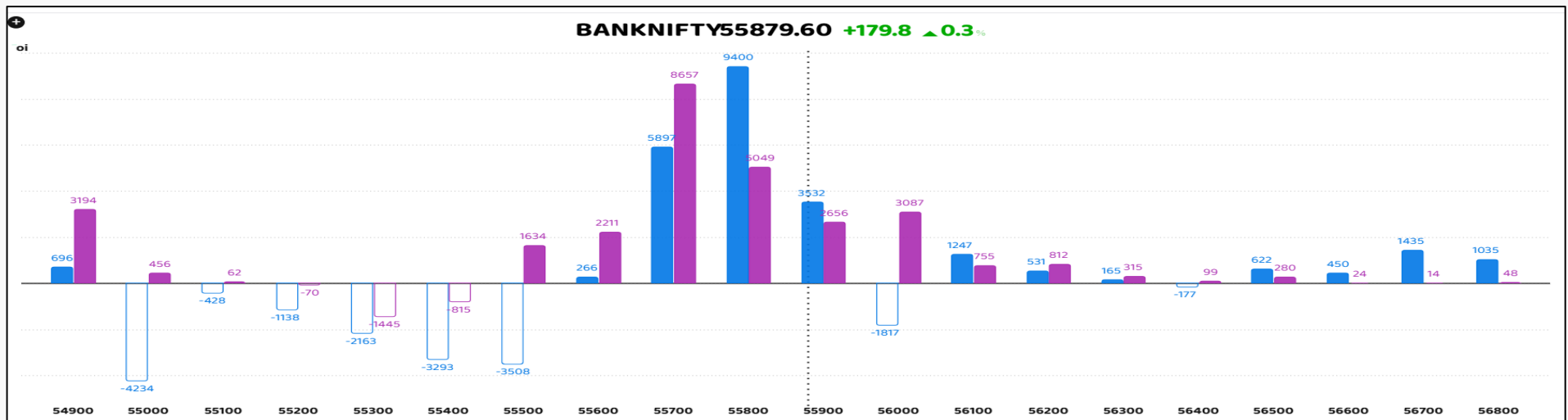
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from the prior trading session

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

Call ■ Put ■

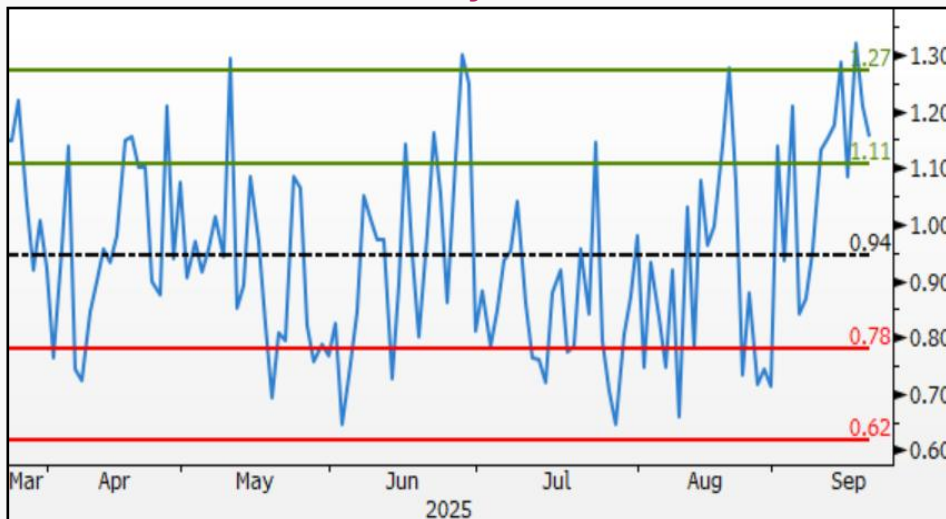


The largest open interest changes (contracts) were seen at the 25,800 call strike and 25,400 put strike.

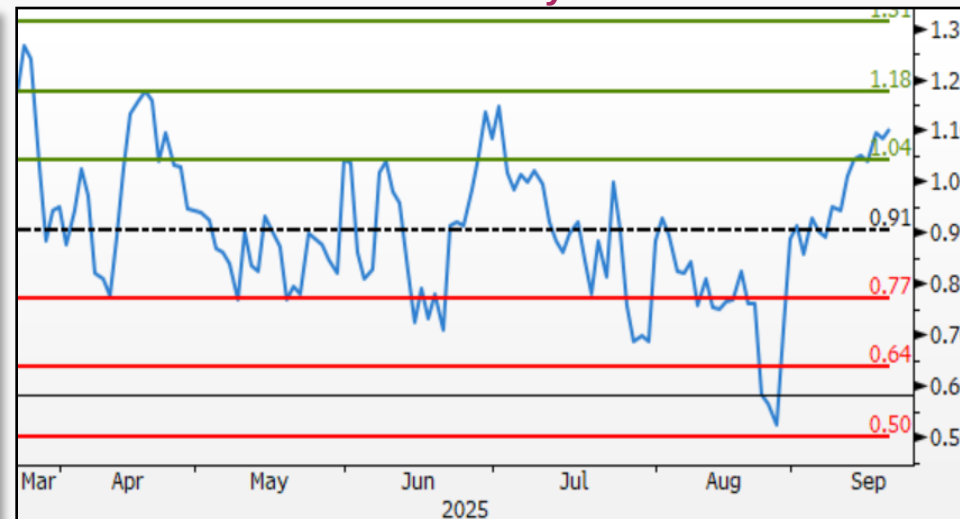


For the Bank Nifty, the biggest open interest changes were seen at the 55,800, Call Strike & 55,700 Put strike.

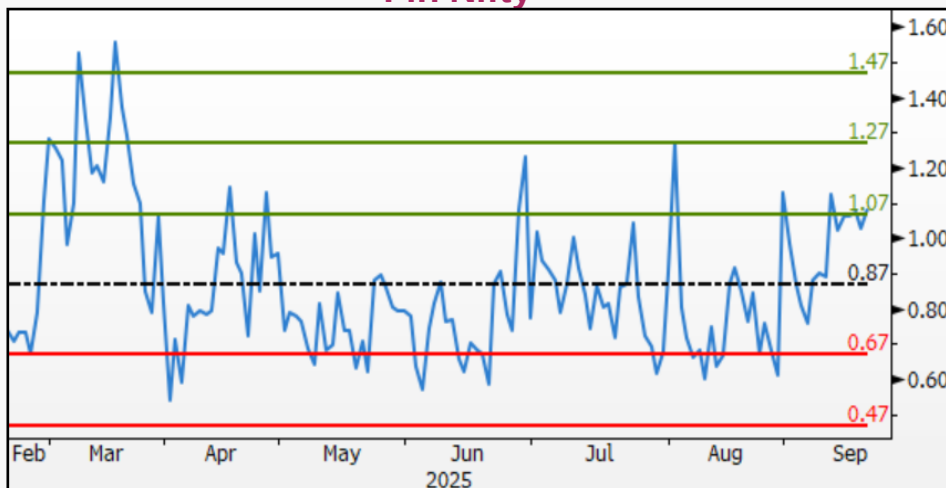
Nifty



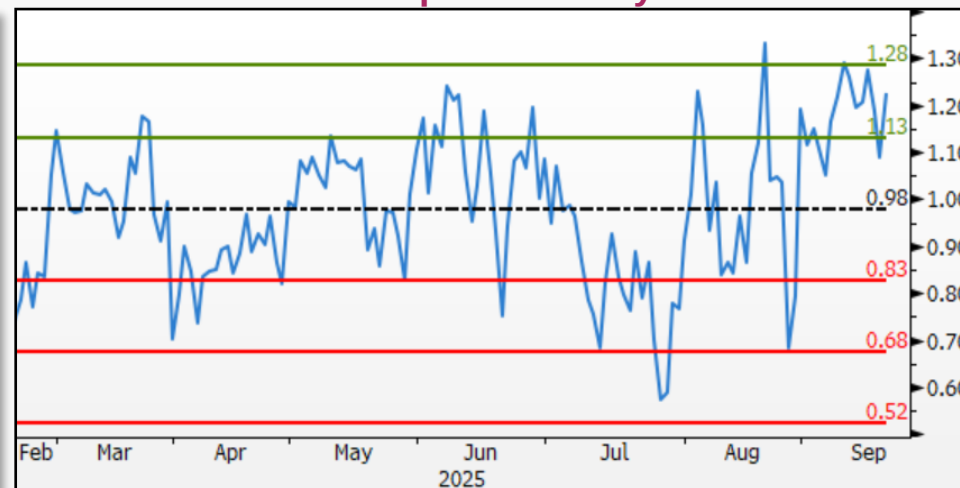
Bank Nifty



Fin Nifty



Midcap Select Nifty



Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
VODAFONE IDEA	7.84	0.9	84.9	88.7	40.4	92.2
SBI CARDS & PAYMENTS	891.7	-0.2	29.0	36.9	4.6	75.4
INDIAN OIL CORP	147.15	0.8	35.8	42.1	18.2	73.7
APOLLO HOSPITALS	7850.5	-0.5	27.5	32.7	12.9	73.6
SHREE CEMENT	29960	0.9	25.5	31.9	7.9	73.5

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
LTIMINDTREE LTD	5524.5	1.9	6.8	43.3	6.8	0.0
EXIDE INDUS LTD	425.15	1.5	24.1	49.6	24.1	0.0
NTPC LTD	336.95	0.2	18.5	116.6	16.7	1.8
CUMMINS INDIA	4101	-0.6	22.9	53.5	22.0	2.8
FED BANK LTD	198.43	-0.3	20.6	130.9	17.1	3.1

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
VODAFONE IDEA	7.84	0.9	84.9	88.7	40.4	99.5
INDIAN OIL CORP	147.15	0.8	35.8	42.1	18.2	97.7
APOLLO HOSPITALS	7850.5	-0.5	27.5	32.7	12.9	91.6
SBI CARDS & PAYMENTS	891.7	-0.2	29.0	36.9	4.6	87.5
RAIL VIKAS NIGAM	362.5	0.5	43.3	50.3	25.1	85.7

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
LTIMINDTREE LTD	5524.5	1.9	6.8	43.3	6.8	0.0
EXIDE INDUS LTD	425.15	1.5	24.1	49.6	24.1	0.0
CUMMINS INDIA	4101	-0.6	22.9	53.5	22.0	1.0
RBL BANK LTD	271.2	2.6	15.1	76.5	10.6	1.1
ONGC	235.59	-0.5	17.5	46.1	6.4	1.2

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PHOENIX MILLS	1626.2	0.8	14299	2066	6.9
KFIN TECHNOLOGIES	1144.8	2.4	15627	2443	6.4
TORRENT POWER LTD	1284.5	1.5	9504	1715	5.5
IIFL FINANCE LTD	449.5	1.4	8042	1525	5.3
KPIT TECHNOLOGIES	1301.4	0.3	39510	7791	5.1

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
PETRONET LNG LTD	279.65	-0.4	3731	3115	0.8
VEDANTA LTD	455.65	-0.1	37057	30273	0.8
BAJAJ FINANCE LTD	996.5	-1.1	55595	42980	0.8
TUBE INVESTMENTS	3389.9	0.1	2552	1934	0.8
MUTHOOT FINANCE	2957.6	0.5	11826	8544	0.7

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
CG POWER	784.55	-0.9	13563	13563	100.0
PHOENIX MILLS	1626.2	0.8	5348	5348	100.0
PIRAMAL PHARMA	203.33	0.1	3910	4042	96.7
NUVAMA WEALTH	6404	0.6	5708	6311	90.5
RAIL VIKAS NIGAM	362.5	0.5	12121	13524	89.6

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
TORRENT POWER LTD	1284.5	1.5	2687	2687	100.0
L&T FINANCE LTD	247.37	1.8	7642	7642	100.0
SONA BLW PRECISION	440.6	1.4	5636	5636	100.0
AMBER ENTERPRISES	8261	-0.3	6853	6853	100.0
BHARAT FORGE	1268.6	0.0	10645	10887	97.8

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
NO STOCK OPTION MET THE CONDITIONS MENTIONED IN THE FOOTNOTE					

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
NO STOCK OPTION MET THE CONDITIONS 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
MANKIND PHARMA	2638.3	2.6	5134	1902	2.7
TATA CHEMICALS	989.25	-1.6	15367	6311	2.4
PAGE INDUSTRIES	44265	-2.4	8496	3836	2.2
DALMIA BHARAT	2448.2	-1.1	4849	2222	2.2
LTIMINDTREE LTD	5524.5	1.9	10029	4842	2.1

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
MANKIND PHARMA	2638.3	2.6	2212	1037	2.1
SAMVARDHANA	108.98	-0.3	10276	5380	1.9
TATA CHEMICALS	989.25	-1.6	6593	3516	1.9
ORACLE FINANCIAL	9175	0.5	12371	6602	1.9
NUVAMA WEALTH	6404	0.6	3575	1938	1.8

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
LIC HOUSING FINANCE	593.2	3.7	64064	8284	7.7
LTIMINDTREE LTD	5524.5	1.9	85446	14002	6.1
HFCL LTD	77.64	3.4	29592	5458	5.4
BIOCON LTD	368.4	4.0	30843	5694	5.4
LAURUS LABS LTD	923.25	3.3	42493	8192	5.2

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
HFCL LTD	77.64	3.4	10793	1898	5.7
LIC HOUSING FINANCE	593.2	3.7	15055	2904	5.2
BIOCON LTD	368.4	4.0	9424	2307	4.1
IREDA	155.53	1.0	7364	1841	4.0
LTIMINDTREE LTD	5524.5	1.9	22808	5737	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	2400	1389000	-0.1%	2402	2400	1023300	-0.1%	ITC	420	8747200	2.1%	412	410	5134400	-0.4%
ADANIPORTS	1420	1349000	0.5%	1413	1400	1334750	-0.9%	JIOFIN	320	12217650	0.8%	317	310	5130050	-2.3%
APOLLOHOSP	7900	177125	0.6%	7851	7900	69625	0.6%	JSWSTEEL	1200	1138725	7.0%	1121	1000	601425	-10.8%
ASIANPAINT	2600	1593000	4.9%	2479	2500	554000	0.9%	KOTAKBANK	2000	1327200	-2.7%	2055	2000	1326000	-2.7%
AXISBANK	1120	2556250	-1.1%	1133	1100	2383750	-2.9%	LT	3600	1261050	-2.3%	3686	3600	791875	-2.3%
BAJAJ-AUTO	9500	382125	4.7%	9075	9000	123675	-0.8%	M&M	3700	943400	1.6%	3642	3600	737000	-1.2%
BAJAJFINSV	2100	1438000	1.5%	2069	2000	813500	-3.3%	MARUTI	16000	483100	1.2%	15817	15000	576600	-5.2%
BAJFINANCE	1000	2217750	0.3%	997	900	1794750	-9.7%	NESTLEIND	1220	838500	0.9%	1209	1200	420500	-0.8%
BEL	420	9279600	2.5%	410	400	6124650	-2.4%	NTPC	340	12738000	0.9%	337	320	2806500	-5.0%
BHARTIARTL	1920	1577000	-1.1%	1941	1900	1158525	-2.1%	ONGC	240	16222500	1.9%	236	235	3321000	-0.3%
CIPLA	1600	1398750	1.4%	1578	1560	282000	-1.2%	POWERGRID	290	4989400	0.3%	289	280	2014000	-3.1%
COALINDIA	400	7925850	1.7%	393	390	2401650	-0.8%	RELIANCE	1500	8119500	6.0%	1415	1400	3578500	-1.1%
DRREDDY	1300	4097500	-1.7%	1323	1300	1300625	-1.7%	SBILIFE	1840	654375	1.0%	1822	1800	215250	-1.2%
EICHERMOT	7000	358575	1.1%	6925	6500	355775	-6.1%	SBIN	860	8085750	0.7%	854	820	5622750	-4.0%
ETERNAL	330	8528725	-2.3%	338	320	7449600	-5.3%	SHRIRAMFIN	630	1148400	0.5%	627	600	990000	-4.3%
GRASIM	2900	381500	0.7%	2879	2800	189500	-2.7%	SUNPHARMA	1620	1380050	-1.7%	1649	1600	862400	-2.9%
HCLTECH	1500	1164800	0.4%	1494	1420	424550	-4.9%	TATACONSUM	1200	716100	6.3%	1129	1100	412500	-2.6%
HDFCBANK	1000	9827400	2.4%	977	970	4755300	-0.7%	TATAMOTORS	720	8702400	1.2%	711	700	3433600	-1.6%
HDFCLIFE	800	2567400	2.0%	785	780	1123100	-0.6%	TATASTEEL	175	18524000	1.7%	172	160	21125500	-7.0%
HEROMOTOCO	5500	488400	2.4%	5370	5000	245700	-6.9%	TCS	3200	2014250	0.7%	3177	3000	904400	-5.6%
HINDALCO	760	2499000	1.3%	750	700	1398600	-6.7%	TECHM	1580	1573200	1.9%	1551	1480	1444200	-4.6%
HINDUNILVR	2700	2146800	4.4%	2587	2600	516000	0.5%	TITAN	3600	1010975	2.5%	3511	3600	368200	2.5%
ICICIBANK	1430	3038000	0.6%	1422	1400	2041200	-1.5%	TRENT	5500	1047000	6.9%	5144	5200	387000	1.1%
INDUSINDBK	750	2676800	2.0%	735	740	1551900	0.6%	ULTRACEMCO	13000	151250	3.0%	12626	12000	43900	-5.0%
INFY	1600	4242000	3.9%	1541	1500	2714000	-2.6%	WIPRO	260	12012000	1.2%	257	250	5844000	-2.7%

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

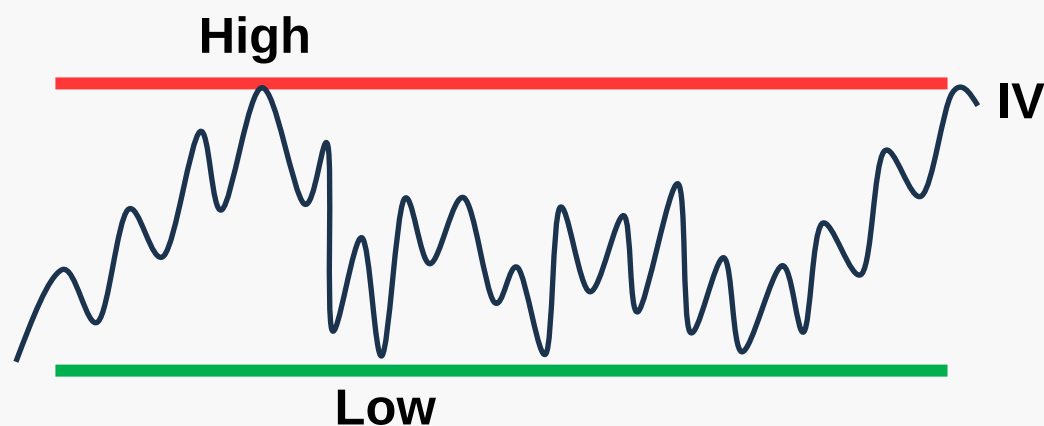
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

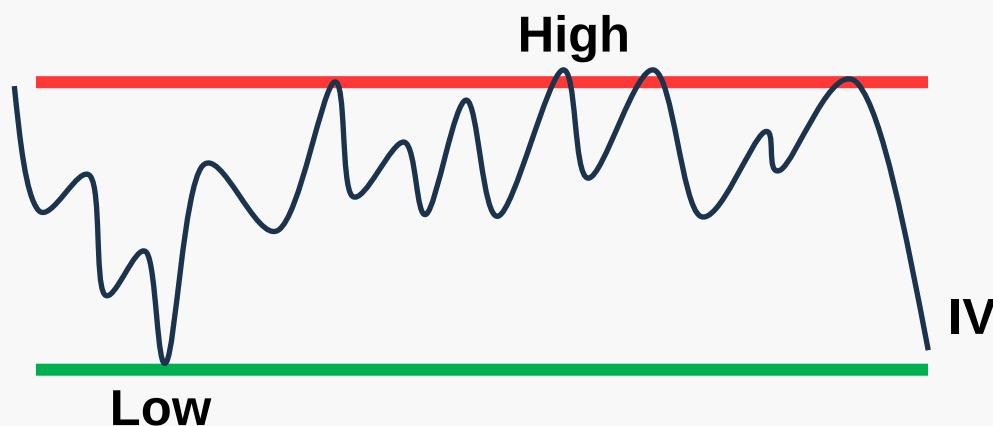
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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 (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

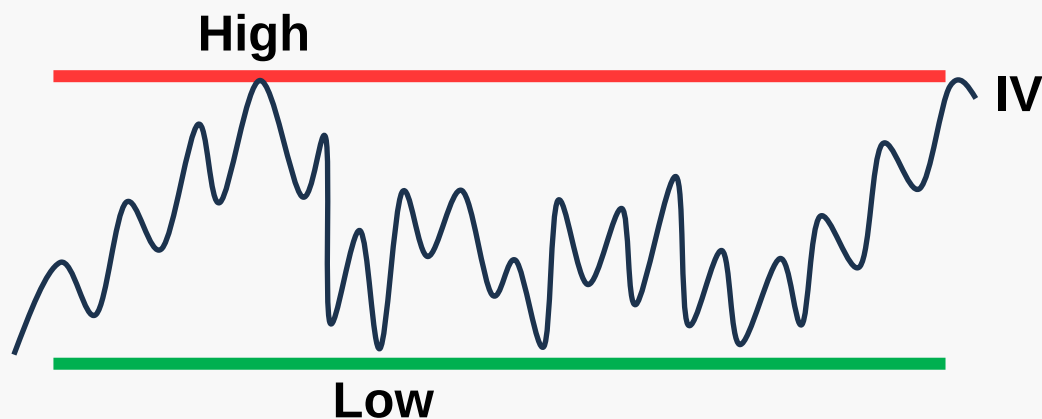


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

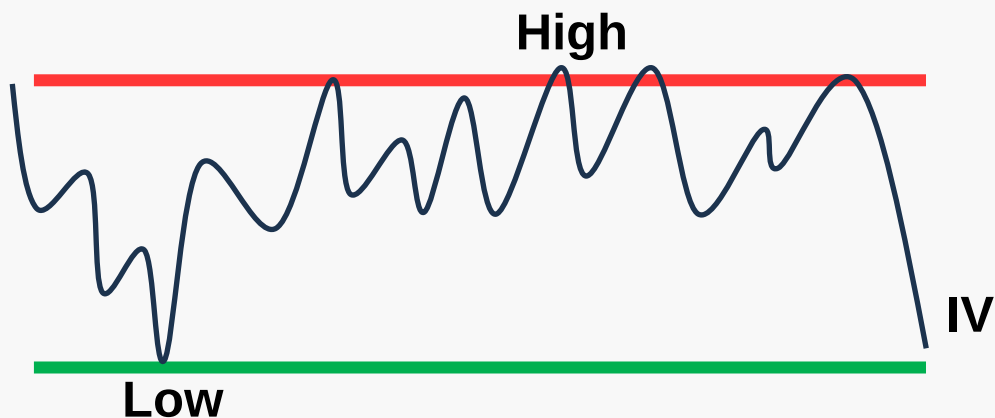


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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