



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	25,007	0.2%▲
Open Interest (OI)	1,92,47,475	4.3%▲
Change in OI (abs)	1,92,47,475	7,96,725▲
Premium / Discount (Abs)	112	19▼
<b>Inference</b>	<b>Long Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	55,854	0.3%▲
Open interest (OI)	21,09,065	2.0%▲
Change in OI (abs)	21,09,065	40,250▲
Premium / Discount (Abs)	265	50▼
<b>Inference</b>	<b>Long Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	10.06	0.23▼
Nifty ATM IV (%)	9.17	0.3▼
Bank Nifty ATM IV (%)	10.23	0.4▼
PCR (Nifty)	1.17	0.01▼
PCR (Bank Nifty)	1.15	0.02▲

The FII Long Ratio in Index Futures **jump** to 6.7 %, **up** from 6.8 % in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
POWERINDIA	13,700	138.3%	18290	0.2%
INDIANB	75,21,000	15.6%	755.4	2.2%
DELHIVERY	1,62,38,950	15.3%	440.3	0.7%
HFCL	11,27,20,200	10.4%	76.36	3.3%
KEI	14,08,050	7.6%	4070.5	0.2%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
SBICARD	1,75,44,800	10.7%	866.3	-0.3%
LODHA	1,04,63,400	6.7%	1120.4	-2.4%
TECHM	1,58,23,200	6.0%	1399.7	-1.0%
COLPAL	52,93,125	5.4%	2226.4	-0.4%
IGL	1,45,22,750	5.4%	210.45	0.0%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
TATATECH	96,04,000	-6.7%	708.1	3.0%
POWERGRID	7,51,14,600	-4.7%	290.3	2.8%
RBLBANK	9,13,03,475	-3.9%	277.25	0.1%
DRREDDY	1,20,68,125	-3.4%	1254.7	0.2%
HEROMOTOCO	48,73,500	-3.2%	5581	2.3%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
SAMMAANCAP	8,80,46,800	-5.4%	166.04	-2.4%
EICHERMOT	38,12,025	-3.8%	6965	-0.9%
ITC	11,01,42,400	-3.3%	406.15	-0.3%
HDFCBANK	21,72,12,600	-3.1%	968.6	-0.1%
SUNPHARMA	1,61,18,900	-2.3%	1641.2	-0.4%

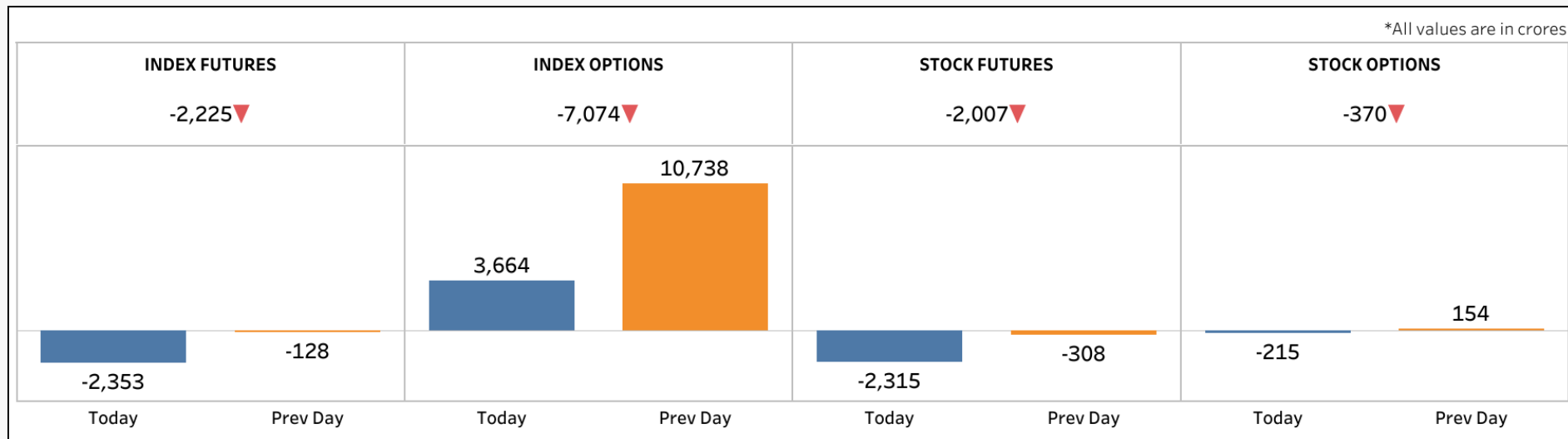
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Trends by Participant

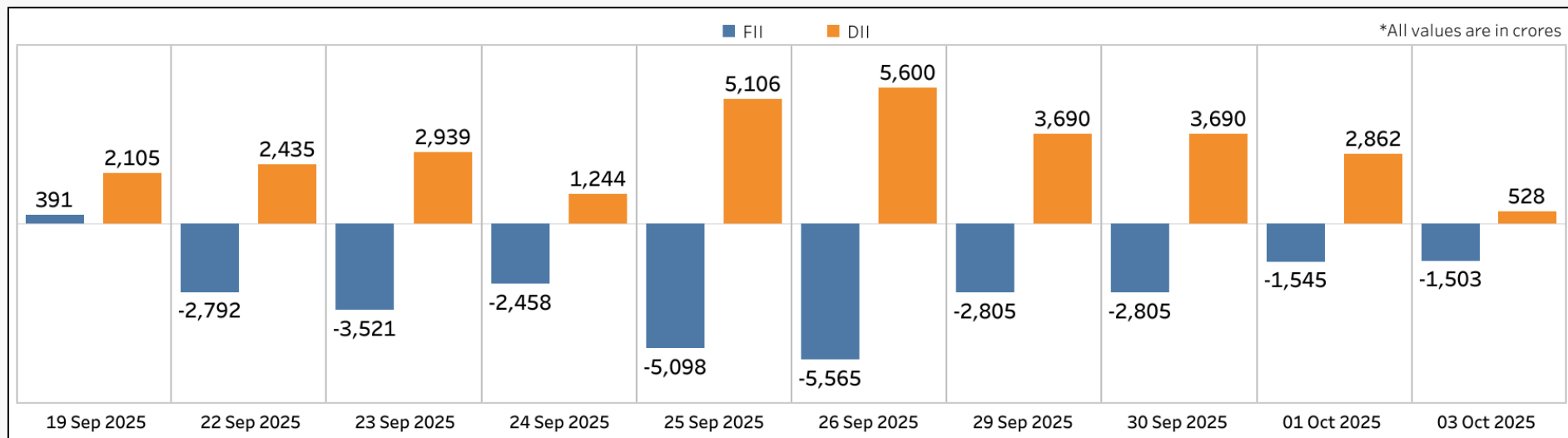
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-38,339 ▼	-11,766 ▼	-254 ▼	-22,139 ▼	-1,140 ▼	-942 ▼	0	14,448 ▲
10,148	48,487	9,486	9,740	0	1,140	209	1,151
-12,586	-820	-28,664	-6,525	0	0	0	7,447
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-4,659	-189,496	290,735	1,291,571	10,603	51,503	25,645	-4,160,738
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
16,359 ▲	2,222 ▲	-109,522 ▼	20,696 ▲	23,122 ▲	10,486 ▲	109,777 ▲	-13,005 ▼
-119,315	9,361	46,931	33,137	109,168	86,046	53,105	1,085
-62,591	7,139	-62,591	12,441	-7,470	-56,672	-11,920	
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-209,198	141,923	-406,521	2,361,315	203,254	-3,930	90,141	507,852
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day

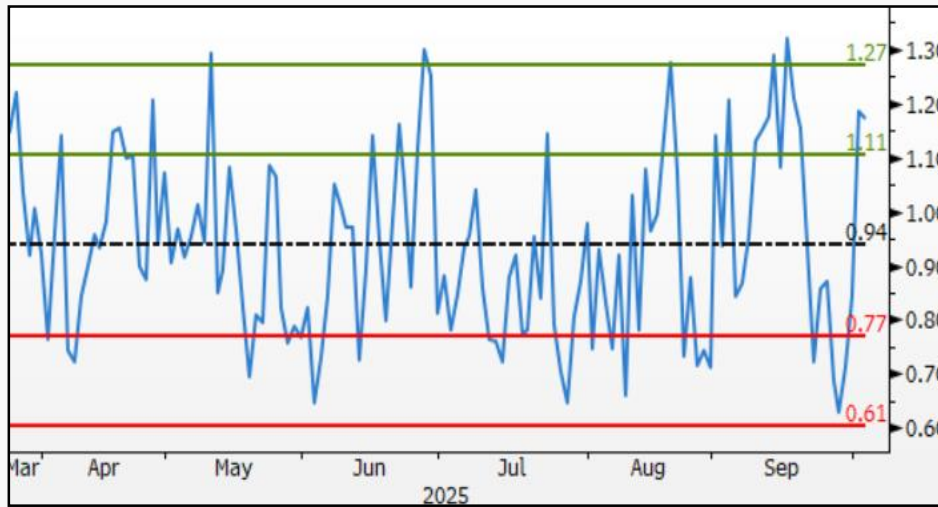
## Daily Net Open Interest Change



## DII and FII Daily Cash Market Flows



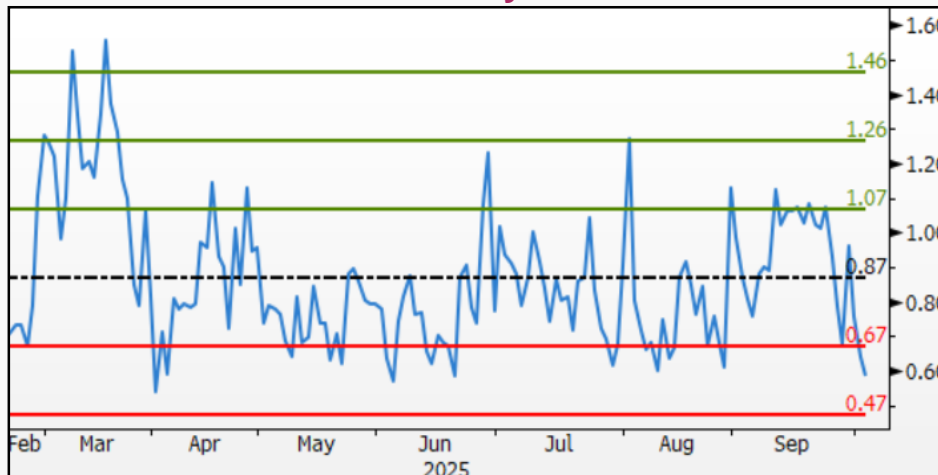
## Nifty



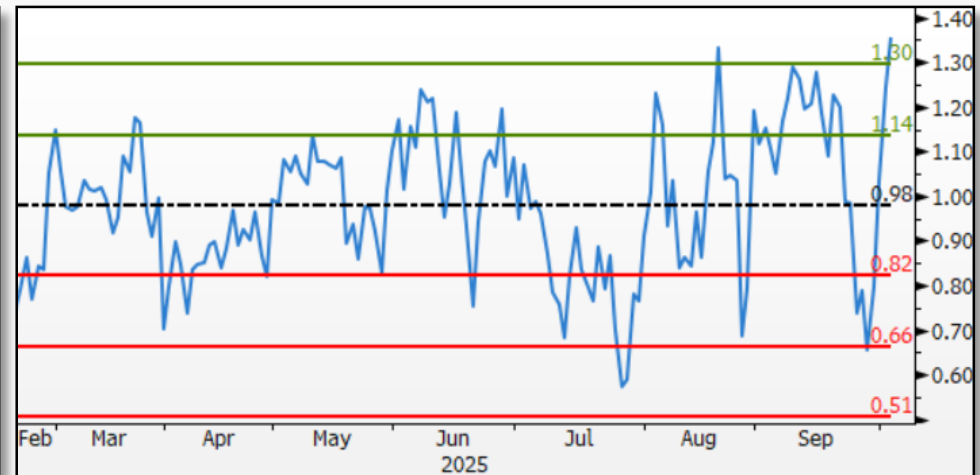
## Bank Nifty



## Fin Nifty

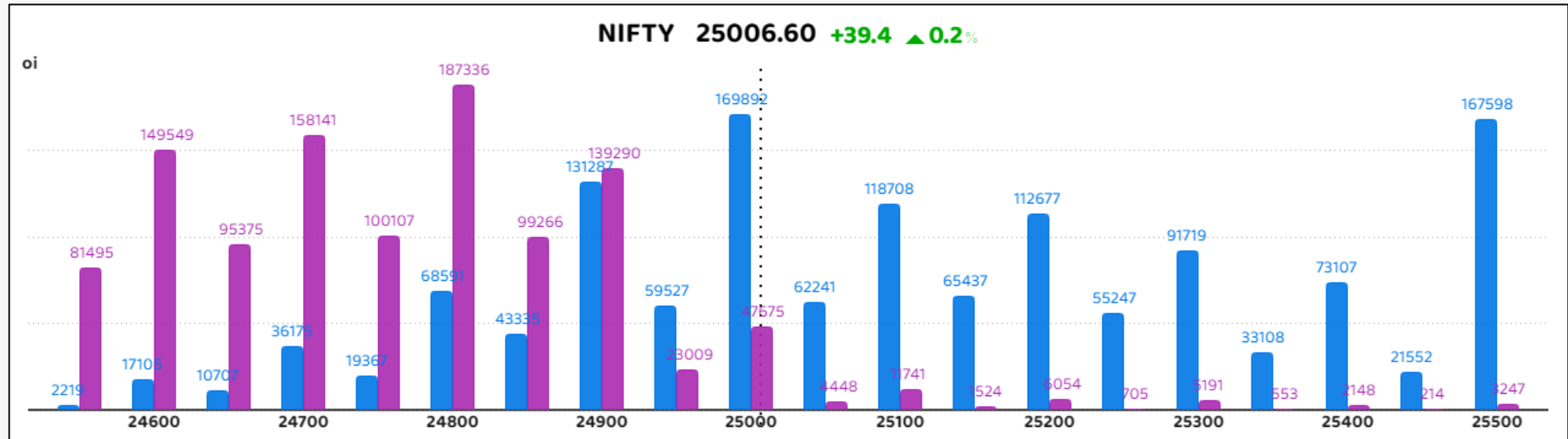


## Midcap Select Nifty



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

Call  Put 



For the Nifty, the 25,000 Call and the 24,800 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.

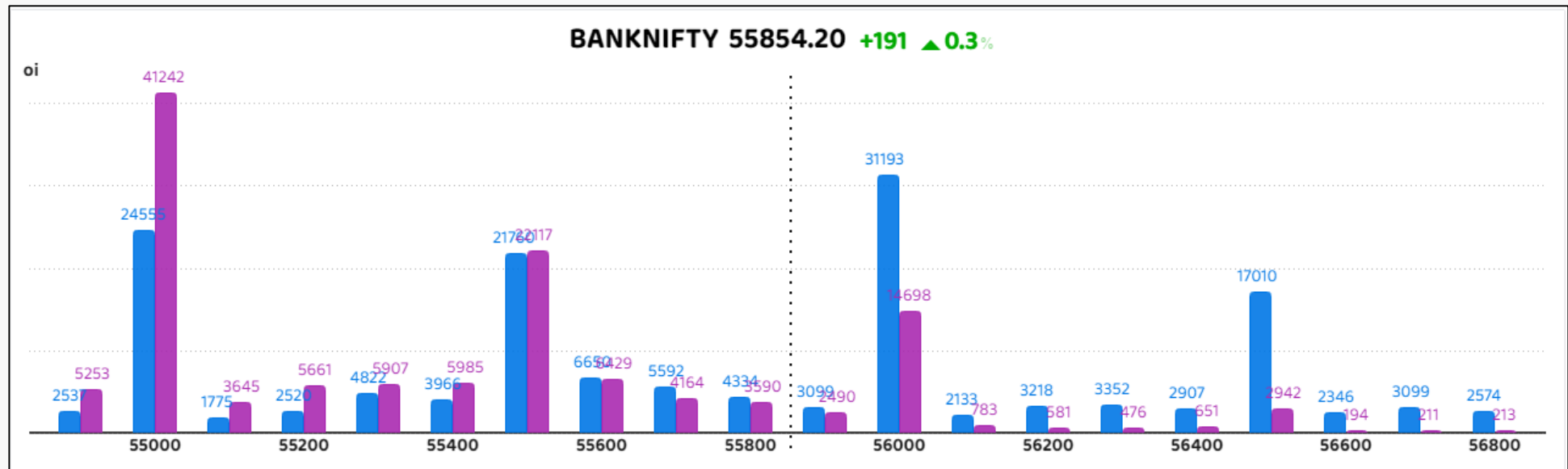
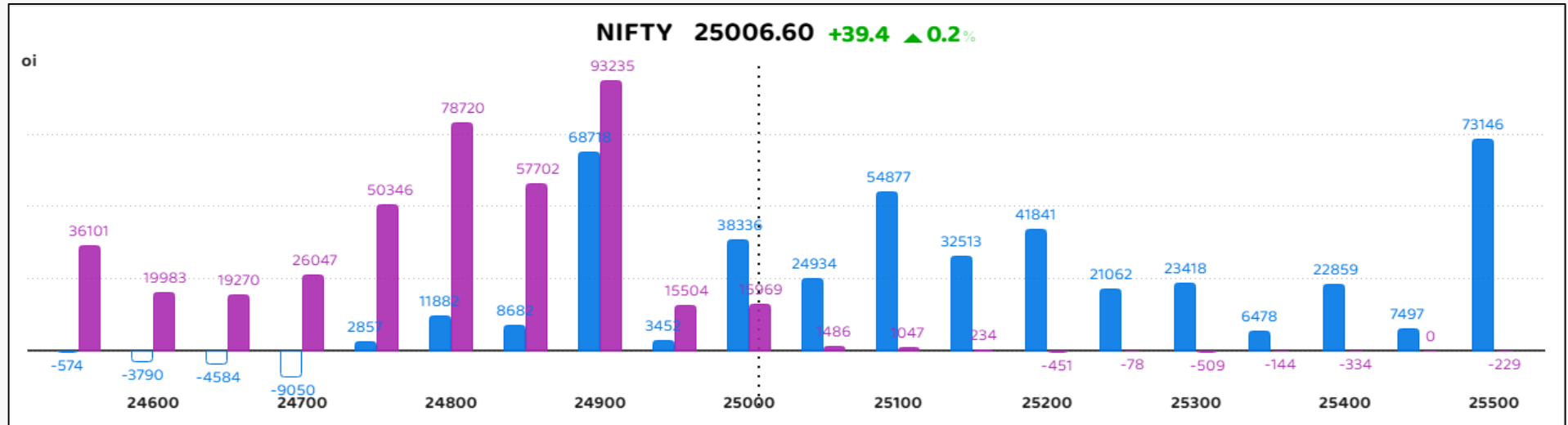


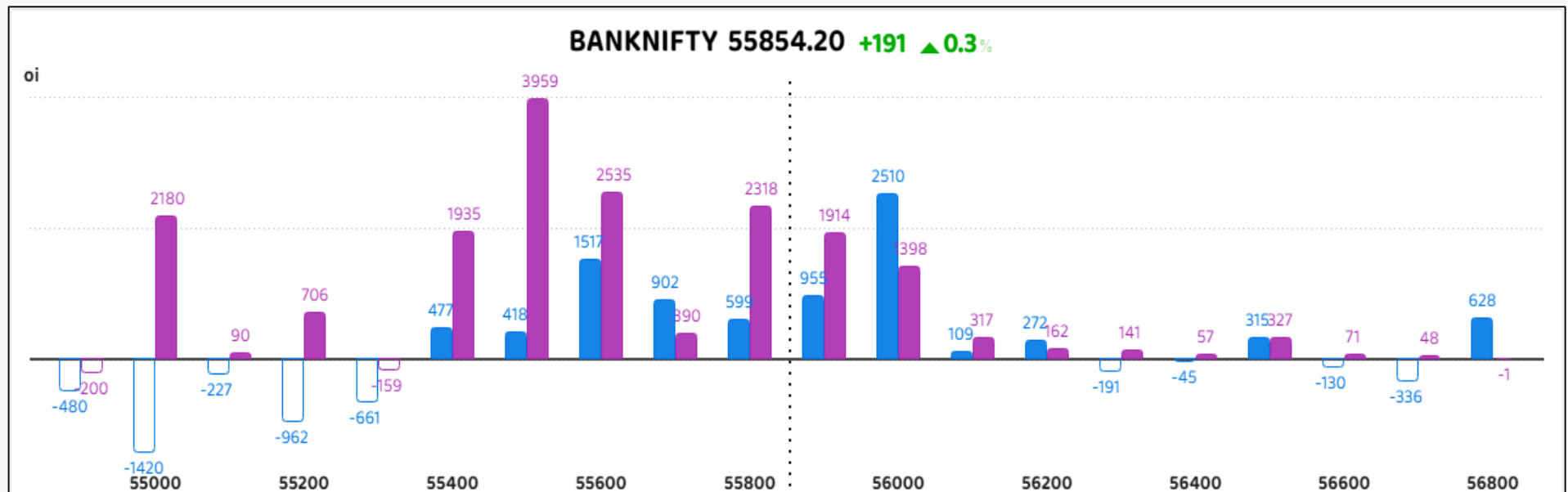
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,900 Call and the 25,500 Put



For the Bank Nifty, the biggest open interest changes were seen at the 56,500 Call & the 55,500 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
SBI CARDS & PAYMENTS	892.05	1.9	36.7	36.9	4.6	99.2
HDFC BANK LTD	965.15	0.0	23.8	26.8	5.1	86.0
BAJAJ AUTO LTD	8679.5	0.6	25.7	36.4	2.1	68.8
LTIMINDTREE LTD	5120	-0.1	30.5	43.3	6.8	65.0
RBL BANK LTD	275.9	0.3	49.8	71.4	10.6	64.6

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INTERGLOBE AVIATION	5657	0.9	21.4	43.2	21.0	1.9
GAIL INDIA LTD	177.36	1.6	24.2	91.4	22.4	2.6
POWER FINANCE	412.2	0.3	24.8	51.5	23.8	3.7
NTPC LTD	342	0.5	20.5	116.6	16.7	3.8
ADANI PORTS	1419.1	-0.3	23.7	99.7	19.8	4.9



### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
SBI CARDS & PAYMENTS	892.05	1.9	36.7	36.9	4.6	99.9
HDFC BANK LTD	965.15	0.0	23.8	26.8	5.1	98.4
CHOLAMANDALAM	1570.9	-2.1	38.0	47.2	23.4	94.1
VODAFONE IDEA LTD	8.82	3.5	74.4	136.3	29.5	89.6
TECH MAHINDRA LTD	1400.6	-1.1	29.8	44.2	19.9	85.2

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
KPIT TECHNOLOGIES	1157.7	0.4	27.1	57.1	25.3	1.3
TATA MOTORS LTD	716.1	-0.3	20.6	72.6	3.9	2.2
INTERGLOBE AVIATION	5657	0.9	21.4	43.2	21.0	2.6
BIOCON LTD	352.25	1.7	25.9	55.0	23.9	3.8
BLUE STAR LTD	1899.2	1.1	27.5	40.0	23.4	5.1

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
VODAFONE IDEA LTD	8.82	3.5	22386	4006	5.6
HINDUSTAN AERONATICS	4870.4	1.4	49462	10794	4.6
CG POWER	747.5	1.0	4378	1009	4.3
UNITED SPIRITS	1362.6	1.2	12097	2805	4.3
RAIL VIKAS NIGAM	347.05	0.8	7971	1912	4.2

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
PB FINTECH LTD	1675.8	1.5	4986	7144	1.4
DALMIA BHARAT LTD	2229.4	1.1	1213	1478	1.2
SUN PHARMA	1636.2	-0.3	21855	19297	0.9
MAX HEALTHCARE	1113.2	-4.0	25398	21432	0.8
EICHER MOTORS	7021.5	-1.1	26659	21452	0.8

## Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
MAX HEALTHCARE	1113.2	-4.0	9416	9416	100.0

## Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
MAX HEALTHCARE	1069.2	-4.0	4695	5493	85.5

## 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
MAX HEALTHCARE	1069.2	-4.0	21432	25900	82.8

## Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
RBL BANK LTD	275.9	0.3	8266	5718	1.4
MAX HEALTHCARE	1069.2	-4.0	9416	7069	1.3
HPCL	446.3	2.7	7893	6763	1.2
STEEL AUTHORITY	134.96	0.0	7805	6883	1.1
TATA CHEMICALS	925.5	0.9	11813	10436	1.1

## Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
TATA MOTORS LTD	716.1	-0.3	57552	44028	1.3
MAX HEALTHCARE	1069.2	-4.0	4695	3614	1.3
TITAN CO LTD	3453.3	1.3	11747	9696	1.2
KPIT TECHNOLOGIES	1157.7	0.4	4563	3797	1.2
POWER GRID CORP	289.7	3.2	7875	6903	1.1

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
IIFL FINANCE LTD	457.2	1.1	10552	3705	2.8
MAX HEALTHCARE	1069.2	-4.0	25398	9490	2.7
NATIONAL ALUMINIUM	221.16	3.1	33137	13248	2.5
HINDALCO INDS	780.35	1.9	47630	19187	2.5
KALYAN JEWELLERS	492.15	5.8	41002	18332	2.2

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
MAX HEALTHCARE	1069.2	-4.0	21432	4376	4.9
IIFL FINANCE LTD	457.2	1.1	2644	1146	2.3
TATA MOTORS LTD	716.1	-0.3	160689	72114	2.2
HFCL LTD	75.87	3.3	4837	2278	2.1
NATIONAL ALUMINIUM	221.16	3.1	14529	7227	2.0

## 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	925200	0.4%	2590	2500	621300	-3.5%	ITC	410	7675200	1.4%	404	410	3230400	1.4%
ADANIPTS	1500	1031700	5.7%	1419	1400	1096300	-1.3%	JIOFIN	320	8131000	6.1%	302	300	6333250	-0.6%
APOLLOHOSP	8000	119750	7.4%	7450	7400	54375	-0.7%	JSWSTEEL	1200	733050	3.3%	1162	1100	445500	-5.3%
ASIANPAINT	2500	848500	6.0%	2358	2300	457750	-2.5%	KOTAKBANK	2100	1182400	0.0%	2101	2060	1038800	-1.9%
AXISBANK	1160	3997500	-1.8%	1181	1160	1119375	-1.8%	LT	3800	800275	1.8%	3733	3700	457625	-0.9%
BAJAJ-AUTO	9000	249000	3.7%	8680	8500	96675	-2.1%	M&M	3500	833800	1.1%	3462	3400	418200	-1.8%
BAJAJFINSV	2100	478000	5.0%	2001	1800	311000	-10.0%	MARUTI	17000	386800	7.6%	15806	15000	253400	-5.1%
BAJFINANCE	1000	1908000	1.0%	990	1000	1110000	1.0%	NESTLEIND	1180	563000	0.9%	1170	1180	232500	0.9%
BEL	410	5862450	-0.6%	413	400	5035950	-3.1%	NTPC	350	4893000	2.3%	342	340	1951500	-0.6%
BHARTIARTL	1900	1382725	0.2%	1897	1900	795625	0.2%	ONGC	250	10320750	2.6%	244	240	5037750	-1.5%
CIPLA	1600	435750	5.4%	1518	1500	332250	-1.2%	POWERGRID	300	4580900	3.6%	290	280	2652400	-3.3%
COALINDIA	400	3840750	4.3%	383	450	2087100	17.4%	RELIANCE	1400	7279000	2.7%	1363	1400	3224000	2.7%
DRREDDY	1300	583750	4.2%	1248	1200	321875	-3.9%	SBILIFE	1800	570000	0.8%	1785	1800	102000	0.8%
EICHERMOT	7000	269325	0.9%	6941	6200	174475	-10.7%	SBIN	880	6491250	1.5%	867	820	2849250	-5.5%
ETERNAL	320	14188675	-2.6%	328	320	7711500	-2.6%	SHRIRAMFIN	650	968550	0.7%	646	640	638550	-0.9%
GRASIM	2900	298500	3.9%	2791	2700	149500	-3.3%	SUNPHARMA	1700	456750	4.2%	1631	1500	658700	-8.0%
HCLTECH	1500	896000	7.6%	1394	1400	635600	0.5%	TATACONSUM	1150	374000	1.1%	1138	1100	185350	-3.3%
HDFCBANK	1000	6254600	3.6%	965	900	2808300	-6.8%	TATAMOTORS	800	10803200	11.7%	716	700	5405600	-2.2%
HDFCLIFE	800	1324400	5.4%	759	760	600600	0.1%	TATASTEEL	180	16142500	3.9%	173	170	8877000	-1.9%
HEROMOTOCO	6000	333450	8.1%	5551	5400	255150	-2.7%	TCS	3000	2225475	3.4%	2902	2900	1435350	-0.1%
HINDALCO	800	2665600	2.5%	780	750	1507800	-3.9%	TECHM	1500	705000	7.1%	1401	1400	599400	0.0%
HINDUNILVR	2600	723600	2.2%	2545	2500	416400	-1.8%	TITAN	3500	556500	1.4%	3453	3400	505225	-1.5%
ICICIBANK	1400	3560900	2.5%	1365	1400	2021600	2.5%	TRENT	5000	489100	3.8%	4816	4800	335200	-0.3%
INDUSINDBK	800	1486100	7.0%	747	700	1632400	-6.3%	ULTRACEMCO	13000	104450	8.2%	12019	12000	48200	-0.2%
INFY	1500	3321600	3.7%	1447	1500	1941600	3.7%	WIPRO	250	6798000	3.7%	241	240	2790000	-0.4%

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

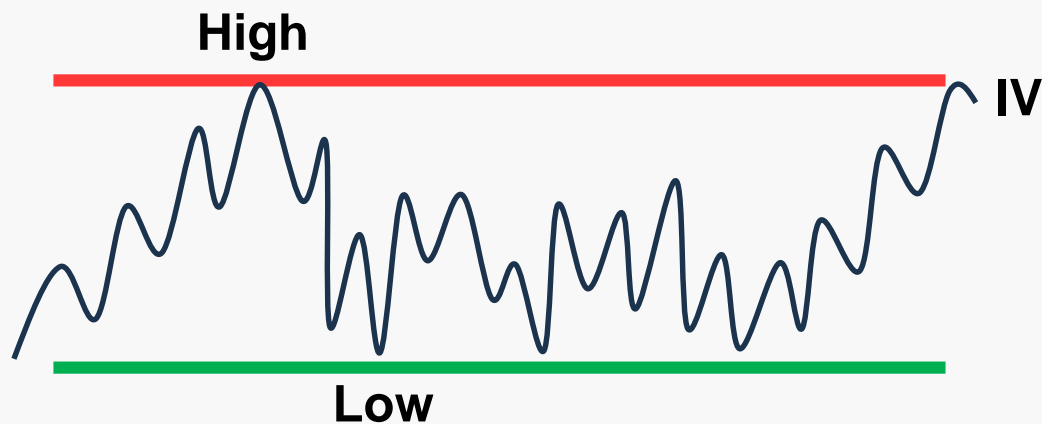
- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating 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*

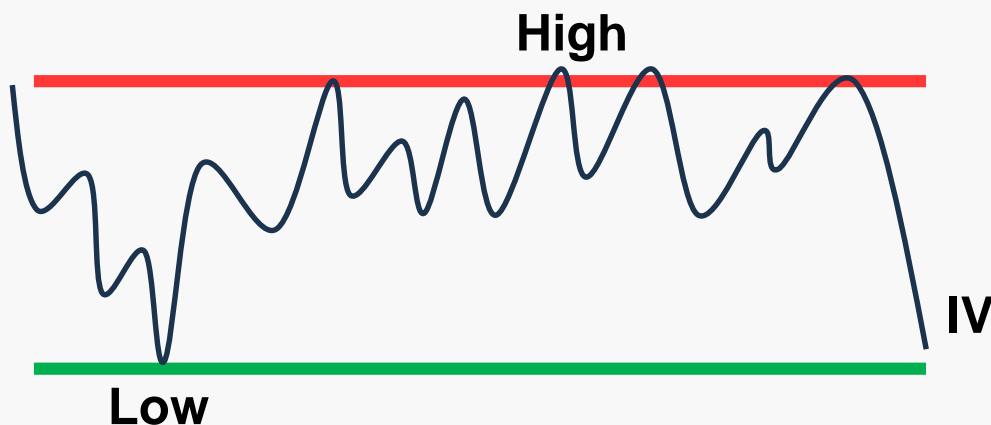


- **Volume:** Number of contracts traded for the day. If A bought 10 calls & B sold 10 calls, the volume for the day is 10 contracts
- **Open Interest:** The number of derivatives contracts that are open (have not been closed out). If A bought 10 calls, B bought another 10 calls and C sold 20 calls, 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](http://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.

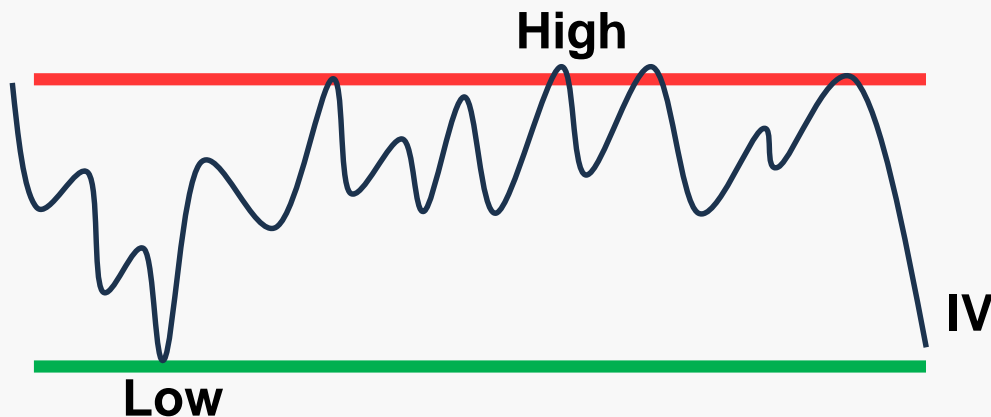


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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.

## Disclaimer & Disclosures

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