



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	25,274	0.6%▲
Open Interest (OI)	1,89,16,500	1.0%▼
Change in OI (abs)	1,89,16,500	1,83,075▼
Premium / Discount (Abs)	92	18▲
<b>Inference</b>	<b>Short Covering</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	56,413	0.4%▲
Open interest (OI)	18,96,300	1.3%▲
Change in OI (abs)	18,96,300	24,255▲
Premium / Discount (Abs)	221	21▲
<b>Inference</b>	<b>Long Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	10.12	0.19▼
Nifty ATM IV (%)	8.86	0.2▼
Bank Nifty ATM IV (%)	10.24	0.2▼
PCR (Nifty)	1.06	0.26▲
PCR (Bank Nifty)	1.08	0.03▲

The FII Long Ratio in Index Futures **jump** to 7.5 %, **up** from 7.5 % in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
SAIL	19,79,35,800	10.6%	137.22	3.7%
AMBER	5,81,000	9.4%	8138	0.0%
NUVAMA	3,36,825	5.8%	7170	1.8%
MCX	25,83,000	5.2%	8750.5	6.6%
OFSS	10,70,250	5.1%	9365	1.4%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
UNOMINDA	39,85,300	11.6%	1257.5	-3.7%
KAYNES	13,53,100	8.8%	7143.5	-0.8%
SBICARD	1,98,10,400	3.2%	912.75	-0.5%
LICHSGFIN	3,23,42,000	3.1%	563.95	-0.1%
NAUKRI	1,02,67,875	2.9%	1351.8	-1.7%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
TATAMOTORS	5,05,87,200	-12.2%	683.15	0.1%
INOXWIND	4,68,81,216	-7.0%	147.86	4.4%
FEDERALBNK	8,69,05,000	-5.2%	207.92	2.4%
NHPC	4,80,51,200	-3.1%	87.16	1.8%
IREDA	4,33,04,400	-2.8%	149.58	0.9%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MARUTI	26,83,500	-3.6%	16004	-0.2%
POLICYBZR	70,67,550	-3.0%	1743.9	-1.4%
AUBANK	2,04,55,000	-2.1%	762.65	-1.0%
EXIDEIND	2,98,94,400	-1.8%	398.65	-0.2%
TORNTPHARM	23,64,500	-1.7%	3567.5	-0.2%

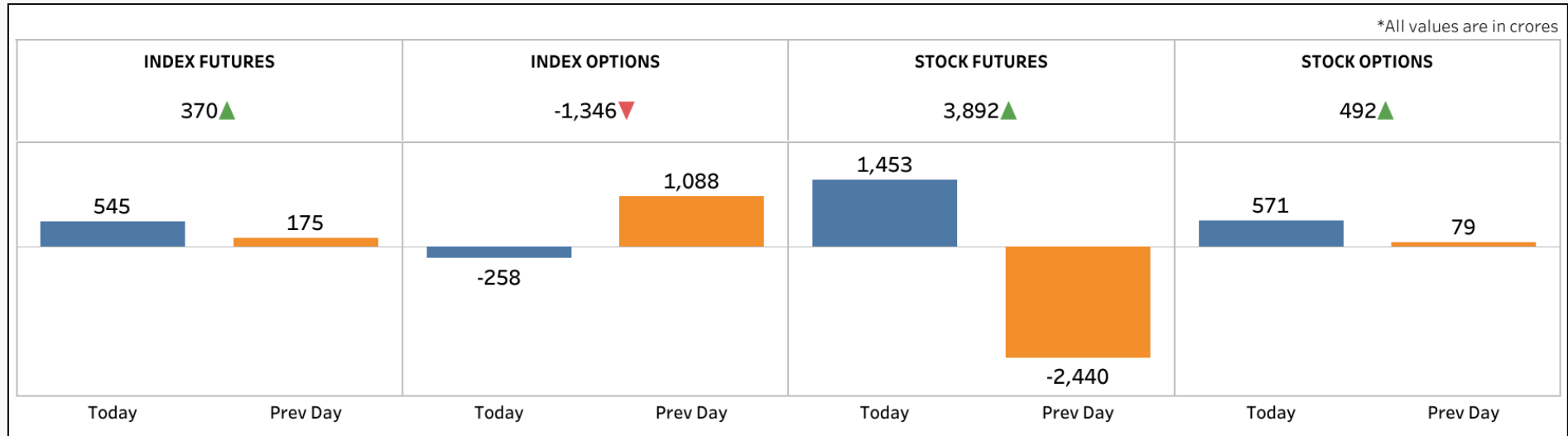
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Trends by Participant

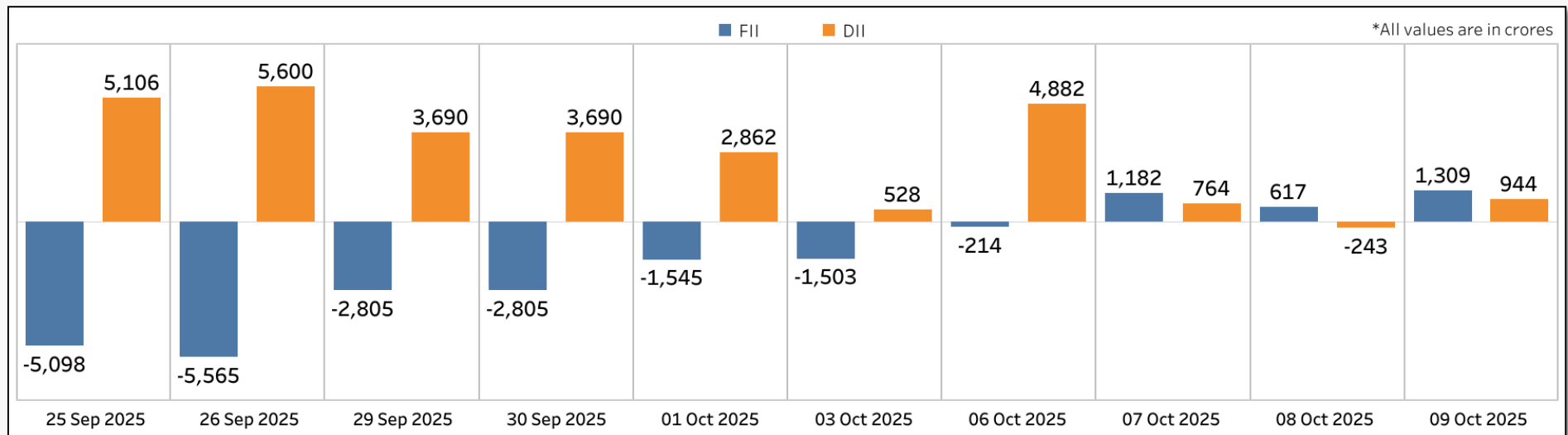
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
44,636 ▲	2,012 ▲	-49,938 ▼	58,028 ▲	700 ▲	-3,755 ▼	125 ▲	-43,750 ▼
23,297	2,866	26,450	21,574	700	1,249	2,100	25,970
-21,339	854	-23,488	-36,454	0	-2,506	1,975	-17,780
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-20,617	-185,810	260,340	1,247,121	11,153	44,930	30,920	-4,155,719
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
-117,636 ▼	-3,355 ▼	199,185 ▲	-27,869 ▼	72,300 ▲	5,098 ▲	-149,373 ▼	13,591 ▲
	942	109,295	16,697	103,396	31,096	61,465	7,378
-9,757	4,297	-89,890	-11,172	-1,302	-6,400	-87,908	-6,213
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-157,713	128,587	-303,871	2,411,346	167,177	12,293	12,611	497,252
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day

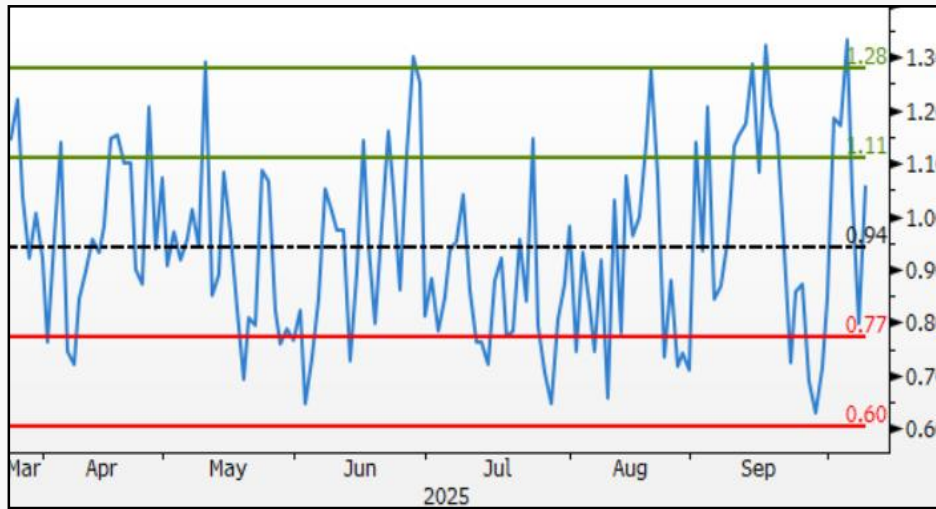
## Daily Net Open Interest Change



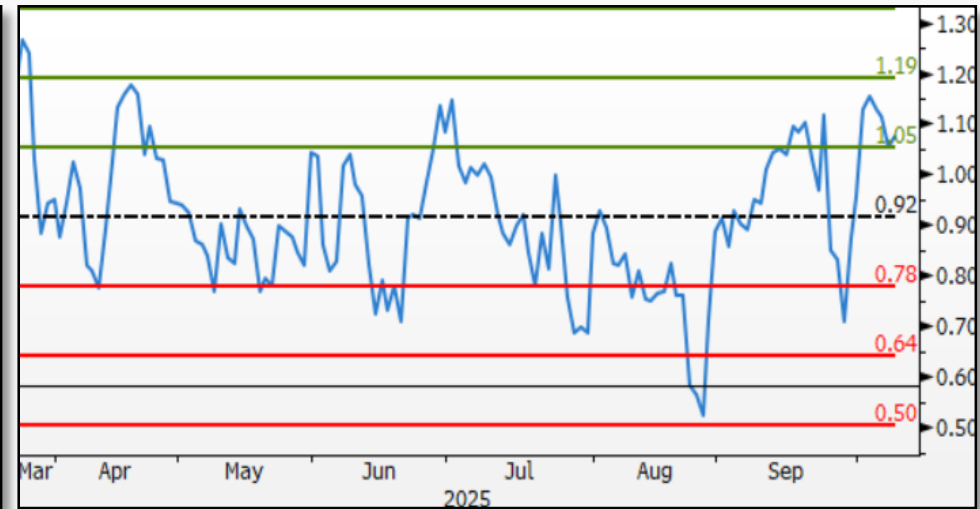
## DII and FII Daily Cash Market Flows



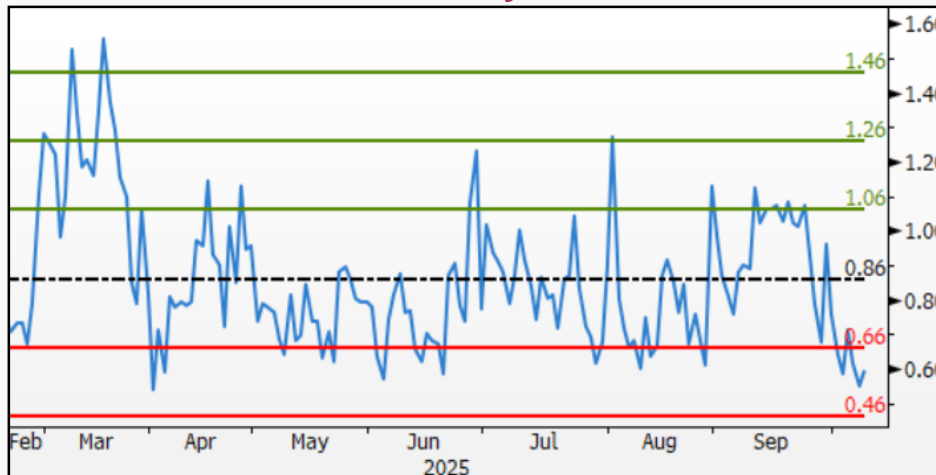
## Nifty



## Bank Nifty



## Fin Nifty

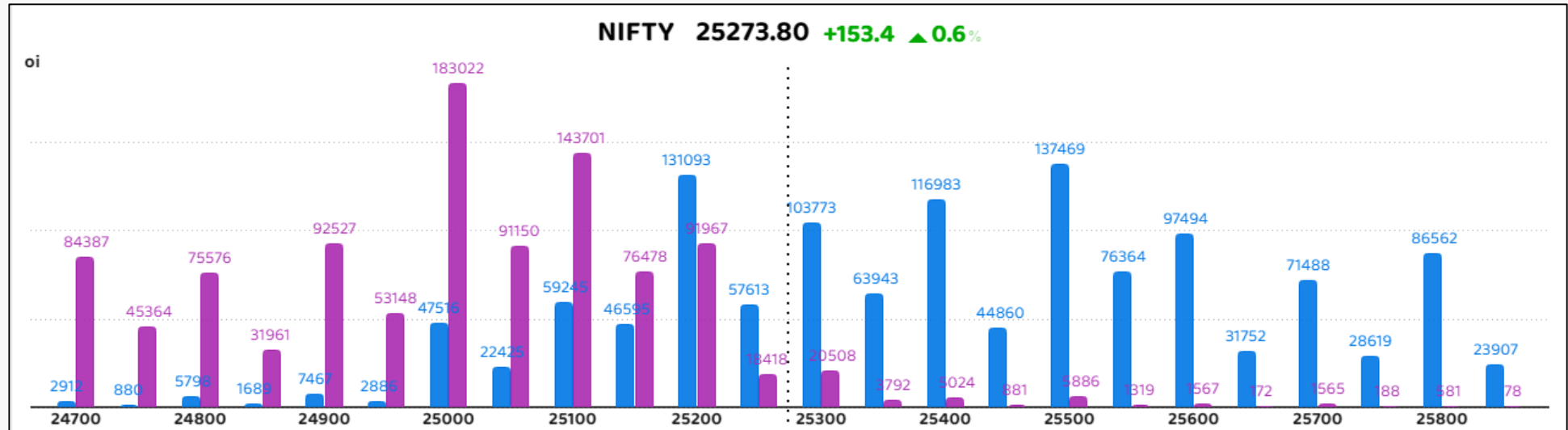


## Midcap Select Nifty



## 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 57,000 Put saw the most amount of open interest.

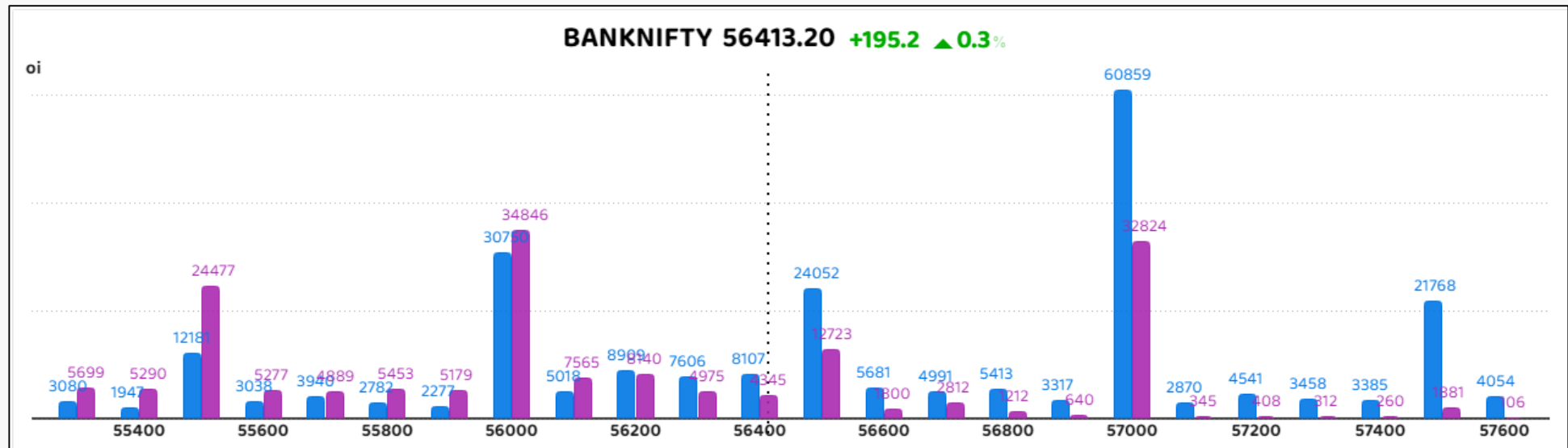
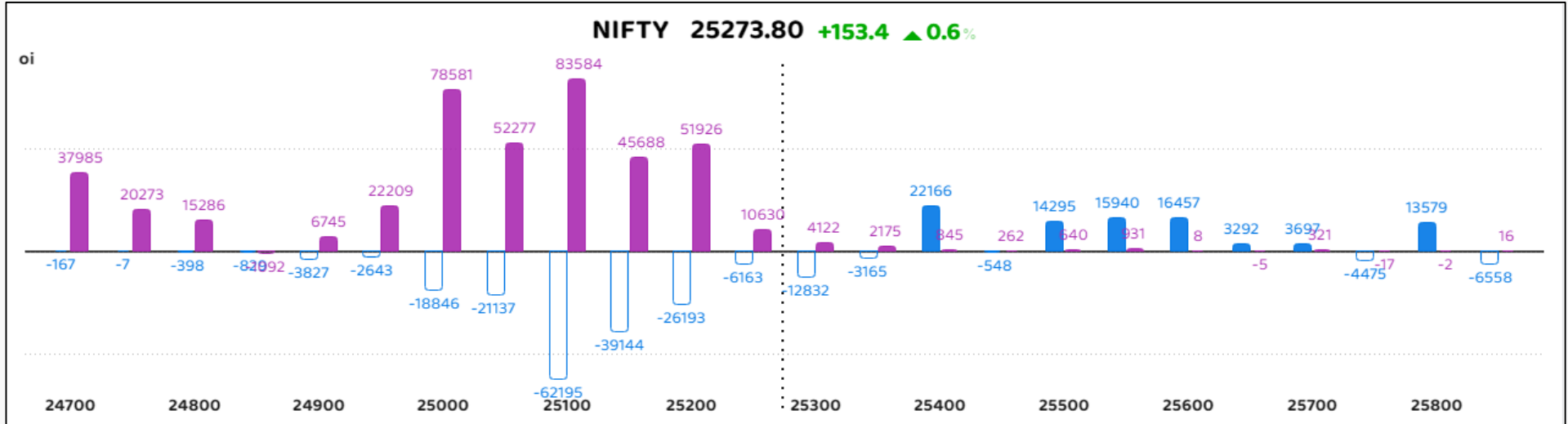


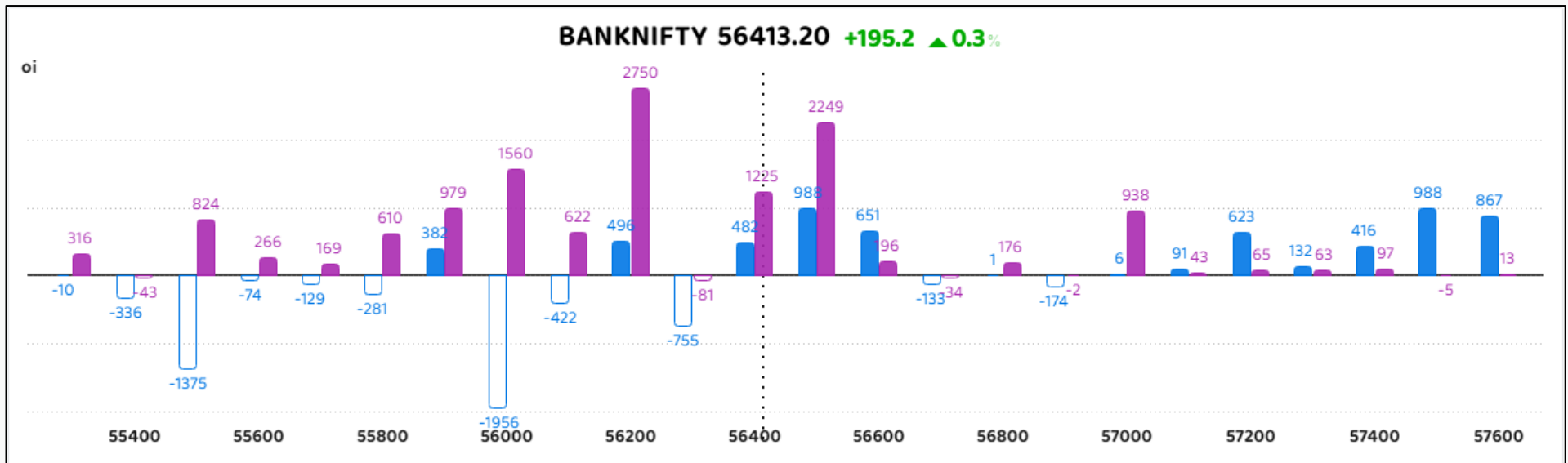
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



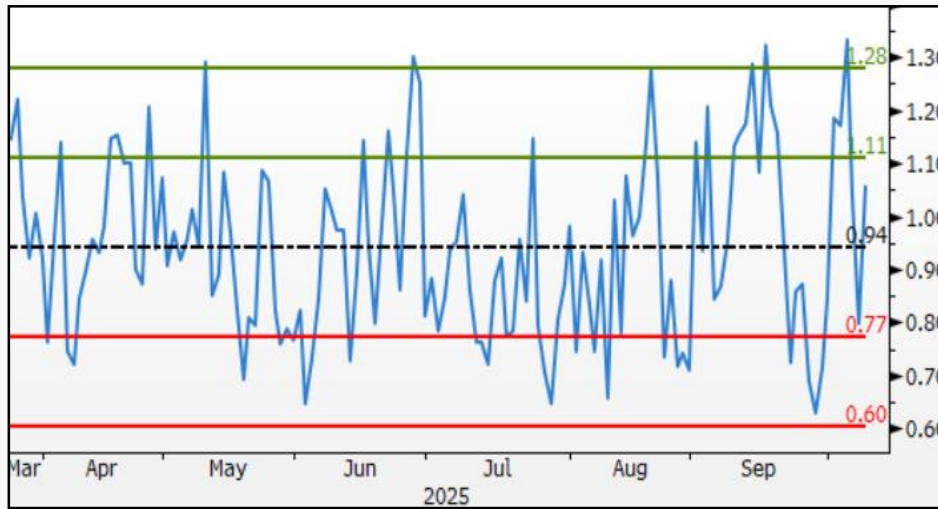
The largest open interest changes (contracts) were seen at the 25,100 Call and the 24,900 Put



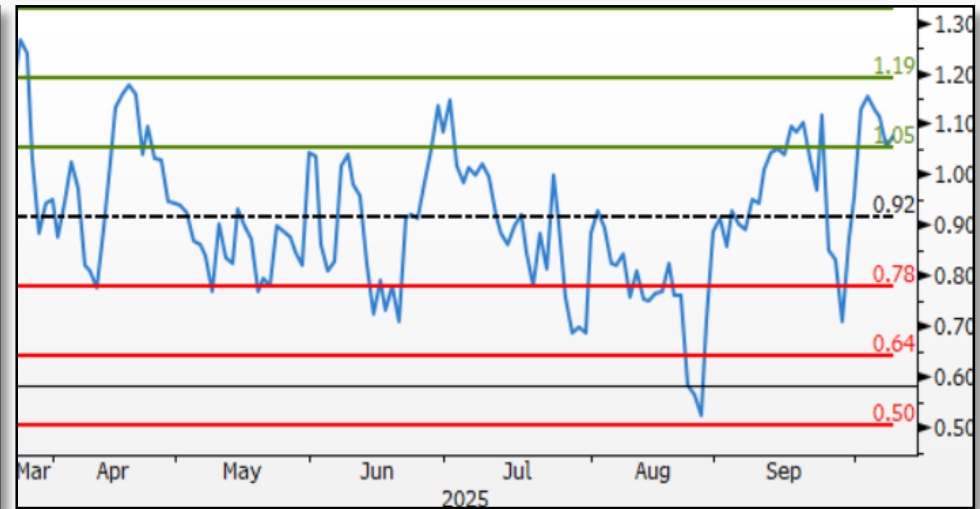
For the Bank Nifty, the biggest open interest changes were seen at the 56,000 Call & the 56,600 Put



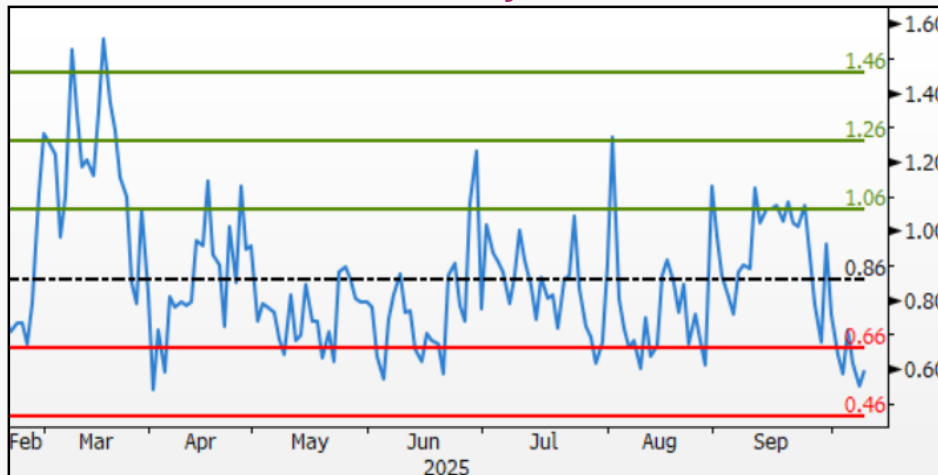
## Nifty



## 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)
HDFC BANK LTD	977.1	-0.2	28.0	28.0	2.5	100.0
SBI CARDS & PAYMENTS	923.1	0.3	32.0	36.9	4.6	84.9
UNO MINDA LTD	1260	-3.9	34.7	43.6	10.9	72.8
BAJAJ AUTO LTD	8810	0.2	24.6	36.4	2.1	65.5
TATA CONSUMER	1118	-0.2	24.4	34.4	5.5	65.3

### Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
NTPC LTD	335.85	0.6	19.2	116.6	16.7	2.5
GAIL INDIA LTD	178.45	0.5	25.3	91.4	22.4	4.2
INTERGLOBE AVIATION	5724.5	1.6	22.1	43.2	21.0	4.9
POWER FINANCE	402.35	0.6	25.3	51.5	23.8	5.3
IDFC FIRST BANK	73.45	2.0	26.9	87.4	21.9	7.5

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
HDFC BANK LTD	977.1	-0.2	28.0	28.0	2.5	100.0
SBI CARDS & PAYMENTS	923.1	0.3	32.0	36.9	4.6	95.6
VODAFONE IDEA LTD	9.03	-0.1	77.3	212.9	29.5	92.6
TCS	3061.7	1.1	23.2	36.2	1.3	85.9
RBL BANK LTD	286.7	0.1	49.5	71.4	10.6	84.5

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
TATA MOTORS LTD	681.1	-0.1	10.7	72.6	3.9	1.4
ALKEM LABORATORIES	5480.5	-0.2	18.7	40.1	13.6	2.1
BLUE STAR LTD	1892.3	0.0	27.2	40.0	23.4	5.4
TORRENT PHARMA	3550.5	-0.5	19.0	34.6	8.3	7.5
INTERGLOBE AVIATION	5724.5	1.6	22.1	43.2	21.0	8.2

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
NBCC INDIA LTD	113.65	2.3	6842	1180	5.8
INDIAN HOTELS	732.15	0.3	8828	1627	5.4
SUZLON ENERGY	53.17	0.8	9299	1889	4.9
ZYDUS LIFESCIENCES	994.45	0.9	11186	2458	4.6
BHARAT DYNAMICS	1520.3	1.7	10750	2364	4.6

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
DALMIA BHARAT LTD	2234.7	0.1	1136	1256	1.1
BOSCH LTD	38465	0.3	2588	2631	1.0
PATANJALI FOODS	594.55	-0.6	3131	2801	0.9
EXIDE INDUS LTD	397.6	-0.2	7336	6527	0.9
L&T FINANCE LTD	260.24	1.8	3837	3056	0.8

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
KAYNES TECHNOLOGIES	7102.5	-1.2	15486	15486	100.0
CROM GREAVES	284.55	-0.5	10232	10232	100.0
UNO MINDA LTD	1260	-3.9	4710	4966	94.8
RAIL VIKAS NIGAM	344.4	-0.6	14429	15727	91.8
DABUR INDIA LTD	485.4	1.1	15173	18278	83.0

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
MAX HEALTHCARE	1155.8	1.0	5351	5571	96.1
LODHA DEVELOPERS	1128.7	0.0	4843	5360	90.4
TRENT LTD	4660.9	1.0	31571	35330	89.4
BHARAT DYNAMICS	1520.3	1.7	6004	7218	83.2
FSN E-COMMERCE	264.11	2.6	3209	3944	81.4

## Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
NO STOCK OPTION MET THE CONDITION MET 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 CONDITION MET 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
UNO MINDA LTD	1260	-3.9	4710	2670	1.8
TATA MOTORS LTD	681.1	-0.1	164778	100521	1.6
INDRAPRASTHA GAS	218.52	0.5	6070	3782	1.6
CROM GREAVES	284.55	-0.5	10232	6811	1.5
HPCL	458	0.2	11231	7620	1.5

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
TATA ELXSI LTD	5573	2.1	8225	4339	1.9
FORTIS HEALTHCARE	1068.85	1.3	3891	2354	1.7
INDRAPRASTHA GAS	218.52	0.5	3621	2242	1.6
UNO MINDA LTD	1260	-3.9	2660	1693	1.6
TITAN CO LTD	3550.6	-0.4	17646	11621	1.5



### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
PG ELECTROPLAST	553.15	7.5	69583	10085	6.9
PRESTIGE ESTATES	1582.9	4.6	28891	6162	4.7
LUPIN LTD	1957.6	2.7	47655	16481	2.9
TATA ELXSI LTD	5573	2.1	45000	15686	2.9
TATA STEEL LTD	176.42	2.6	91976	33243	2.8

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
PG ELECTROPLAST	553.15	7.5	22844	3871	5.9
PRESTIGE ESTATES	1582.9	4.6	12293	2978	4.1
TATA ELXSI LTD	5573	2.1	18400	5011	3.7
UNO MINDA LTD	1260	-3.9	6346	2189	2.9
HINDUSTAN ZINC	512.25	4.4	23139	8172	2.8

## 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	2020200	2.3%	2542	2500	701400	-1.7%	JIOFIN	320	9573900	4.1%	307	300	6815000	-2.4%
ADANIPTS	1500	1311000	7.5%	1396	1400	1285825	0.3%	JSWSTEEL	1300	996975	10.6%	1175	1100	547425	-6.4%
APOLLOHOSP	8000	103500	4.0%	7695	7700	68000	0.1%	KOTAKBANK	2100	1096800	-2.1%	2145	2100	1486400	-2.1%
ASIANPAINT	2500	1161750	7.0%	2336	2300	476750	-1.6%	LT	3800	1209250	0.8%	3769	3700	399000	-1.8%
AXISBANK	1250	4559375	7.1%	1167	1180	1186250	1.1%	M&M	3600	1197200	4.6%	3443	3400	529400	-1.2%
BAJAJ-AUTO	9000	219000	2.2%	8810	8800	97800	-0.1%	MARUTI	17000	388000	6.3%	15985	15000	255300	-6.2%
BAJAJFINSV	2080	683000	3.2%	2015	1800	817500	-10.7%	MAXHEALTH	1200	499800	3.8%	1156	1060	489825	-8.3%
BAJFINANCE	1100	2168250	7.4%	1024	1000	1391250	-2.4%	NESTLEIND	1200	790500	1.0%	1188	1180	336500	-0.7%
BEL	420	8769450	2.6%	409	410	5548950	0.2%	NTPC	340	6918000	1.2%	336	380	1824000	13.1%
BHARTIARTL	1960	2617250	0.9%	1942	1900	825550	-2.2%	ONGC	250	19113750	2.7%	243	240	3120750	-1.4%
CIPLA	1600	801750	5.7%	1513	1500	323625	-0.9%	POWERGRID	300	7366300	4.8%	286	290	2148900	1.3%
COALINDIA	395	4348350	3.0%	383	380	2338200	-0.9%	RELIANCE	1400	10565500	1.6%	1378	1400	3907500	1.6%
DRREDDY	1320	1025625	5.9%	1246	1200	338125	-3.7%	SBILIFE	1800	603375	-0.5%	1810	1800	181125	-0.5%
EICHERMOT	7000	301700	1.5%	6897	6500	182525	-5.7%	SBIN	900	7362750	4.4%	862	870	3342000	0.9%
ETERNAL	335	10463875	-3.0%	346	320	5495050	-7.4%	SHRIRAMFIN	700	1136850	4.6%	669	660	895950	-1.4%
GRASIM	2900	350000	3.2%	2811	2700	145500	-3.9%	SUNPHARMA	1680	1253700	1.3%	1659	1500	672000	-9.6%
HCLTECH	1500	1034950	0.9%	1487	1400	480200	-5.8%	TATACONSUM	1240	427900	10.9%	1118	1100	196350	-1.6%
HDFCBANK	1000	5391100	2.3%	977	970	2228600	-0.7%	TATAMOTORS	720	14620000	5.7%	681	650	3957600	-4.6%
HDFCLIFE	800	1706100	6.1%	754	740	676500	-1.9%	TATASTEEL	180	22874500	2.0%	176	170	10725000	-3.6%
HINDALCO	800	3628800	3.3%	774	750	1643600	-3.1%	TCS	3100	3039925	1.3%	3062	3000	1799875	-2.0%
HINDUNILVR	2600	897900	3.3%	2518	2500	376200	-0.7%	TECHM	1500	567000	2.3%	1467	1400	672000	-4.5%
ICICIBANK	1400	4314100	1.7%	1376	1400	2396100	1.7%	TITAN	3400	595350	-4.2%	3551	3500	515725	-1.4%
INDIGO	6000	413250	4.8%	5725	5500	186600	-3.9%	TRENT	5000	1059500	7.3%	4661	4700	450400	0.8%
INFY	1500	3929600	-0.6%	1509	1500	2137200	-0.6%	ULTRACEMCO	13000	136550	6.6%	12192	12000	54250	-1.6%
ITC	410	9036800	2.5%	400	400	4633600	0.0%	WIPRO	250	6429000	1.5%	246	240	4281000	-2.6%

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

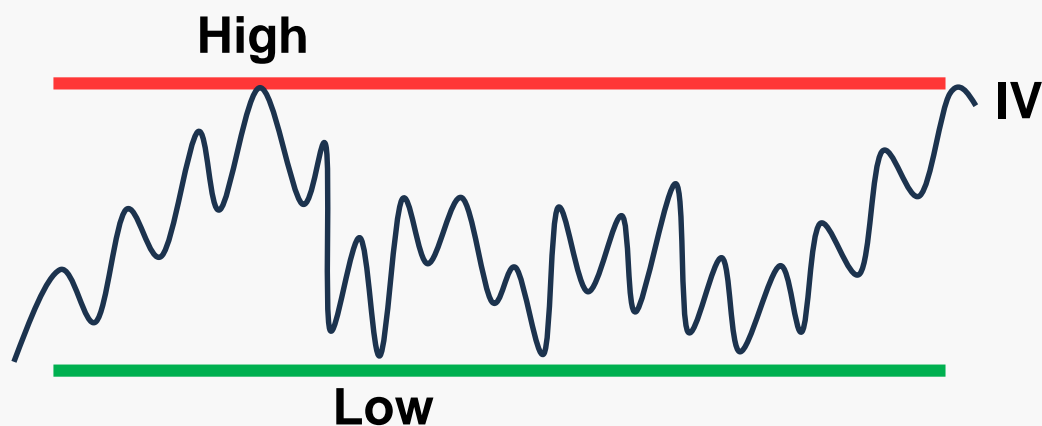
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

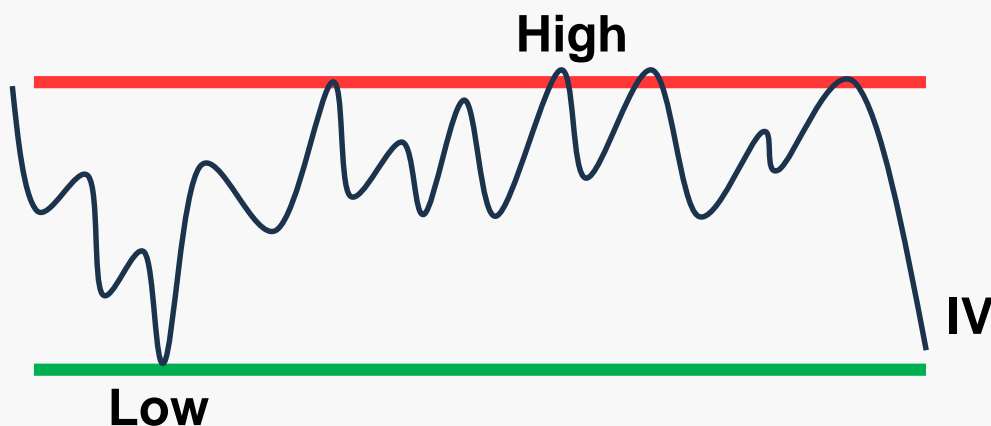
*\*ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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)s, 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

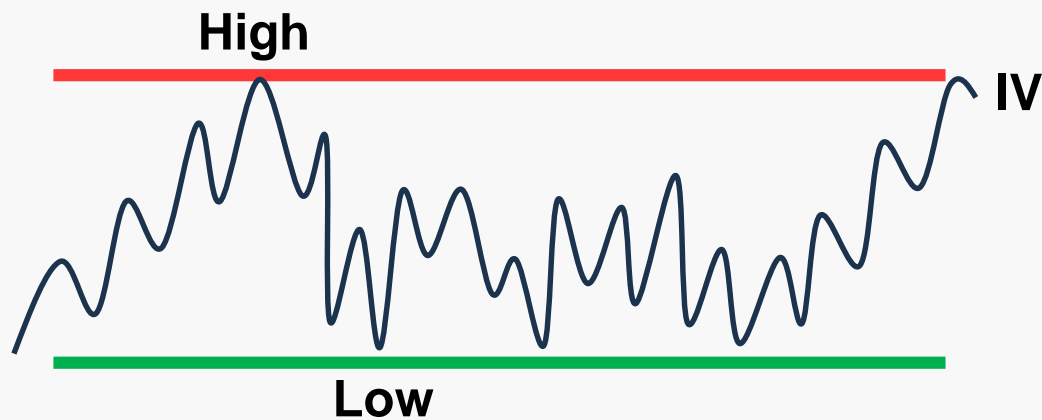


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

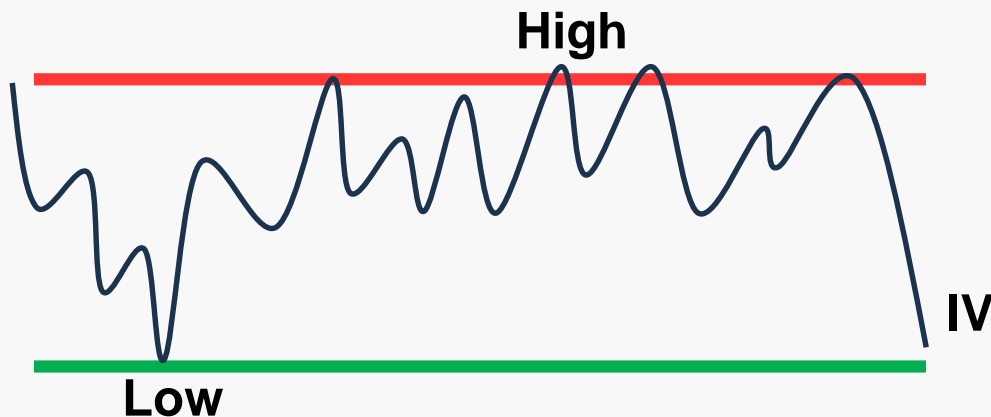


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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.



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