



Daily Derivatives Report

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Nifty Futures		Bank Nifty Futures			Volatility Insig	yhts		
	Value	Change		Value	Change		Value	Change
Most recent settlement	25,266	0.4%▲	Most recent settlement	57,233	0.4%▲	India VIX Index	11.48	0.50▼
Open Interest (OI)	1,86,04,050	0.3%▲	Open interest (OI)	25,07,960	3.4%▲	Nifty ATM IV (%)	10.11	0.7▼
Change in OI (abs)	1,86,04,050	63,225▲	Change in OI (abs)	25,07,960	83,090▲	Bank Nifty ATM IV (%)	11.75	0.5▼
Premium / Discount (Abs)	70	15▼	Premium / Discount (Abs)	226	11▼	PCR (Nifty)	0.88	0.16▲
Inference	Long Buil	d Up	Inference	Long B	uild Up	PCR (Bank Nifty)	0.90	0.04 🛦

The FII Long Ratio in Index Futures jump to 18.6%, up from 18.3% in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)			Short Buildup (Open Interest Higher + Price Lower))		
Symbol	Open Interest	Chg (%)	Price	Chg (%)		Symbol	Open Interest	Chg (%)	Price	Chg (%)
PPLPHARMA	1,75,90,000	30.3%	217.21	4.1%		HCLTECH	1,90,99,150	18.8%	1561.2	-3.2%
PGEL	48,94,400	11.6%	812.4	3.2%		INOXWIND	4,66,59,300	15.8%	165.11	-6.6%
AMBER	2,25,400	11.1%	7874.5	2.7%		ABB	26,75,875	9.0%	5612.5	-0.9%
BOSCHLTD	3,53,800	7.2%	37885	1.2%		PRESTIGE	49,22,550	8.9%	1731.7	-0.1%
HDFCAMC	29,08,500	6.6%	5306	3.9%		ICICIPRULI	1,46,66,800	7.3%	672.15	-0.5%

Short Covering (Open Interest Lower + Price Higher)								
Symbol	Open Interest	Chg (%)	Price	Chg (%)				
PEL	69,03,000	-9.9%	1325.8	2.3%				
BSE	1,37,64,000	-8.0%	2555.1	3.7%				
BSOFT	91,09,100	-7.1%	427.65	2.7%				
NCC	1,58,89,500	-6.7%	229.69	1.6%				
CAMS	24,74,100	-6.7%	4266	3.4%				

Long Unwinding (Open Interest Lower + Price Lower)								
Symbol	Open Interest	Chg (%)	Price	Chg (%)				
ETERNAL	14,79,71,075	-3.7%	266.85	-1.6%				
KAYNES	6,51,400	-3.4%	5981	-1.1%				
M&MFIN	2,46,24,712	-2.9%	266.6	-0.7%				
NYKAA	5,04,75,000	-2.7%	216.45	-1.4%				
OIL	1,55,59,600	-1.2%	446.45	-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

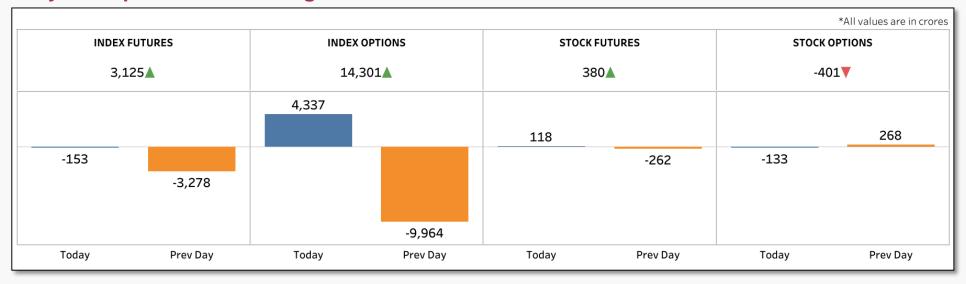


Open Interest Trends by Participant

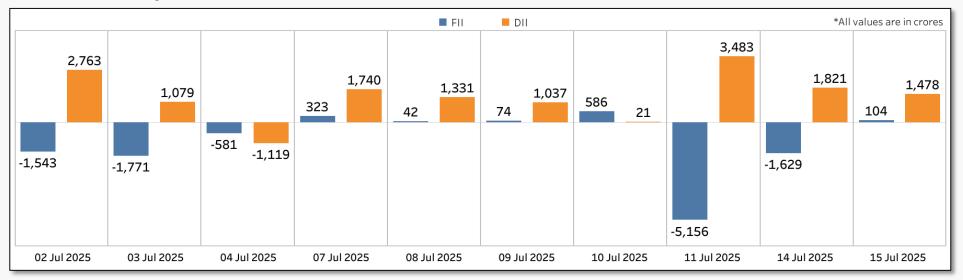
▲ and ▼ indicate posit		ute changes, respectivel	y				
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
48,483 🔺	16,544 🔺	27,148	3,127 🔺	0	-1,463 🔻	-501 🔻	19,939 🔺
22,947				0 0	153 1,616		
		1,060	3,122			-2,053 -1,552	-7,470
-25,536	-758 -17,302	-26,088	-5				-27,409
Net O/S 6,096 Today Prev Day	Net O/S - <mark>121,820</mark> Today Prev Day	Net O/S 149,976 Today Prev Day	Net O/S 1,432,071 Today Prev Day	Net O/S 70 Today Prev Day	Net O/S 35,932 Today Prev Day	Net O/S 13,283 Today Prev Day	Net O/S - <mark>3,969,526</mark> Today Prev Day
		ents				ro	
							STK FUT
24,853 🔺	-8,504 🔻	66,974 🔺	-91 🔻	-73,336 🔻	-6,577 🔻	-93,622 🔻	-22,975 🔻
		57,137		77,293			
	3,320 11,824		15,108 15,199	3,957	3,862	37,478	12,215
-26,904		-9,837			-2,715		-10,760
-51,757						-56,144	
Net O/S	Net O/S 83,167	Net O/S -345,511	Net O/S 2,125,039	Net O/S 97,492	Net O/S 2,721	Net O/S 182,253	Net O/S 412,416



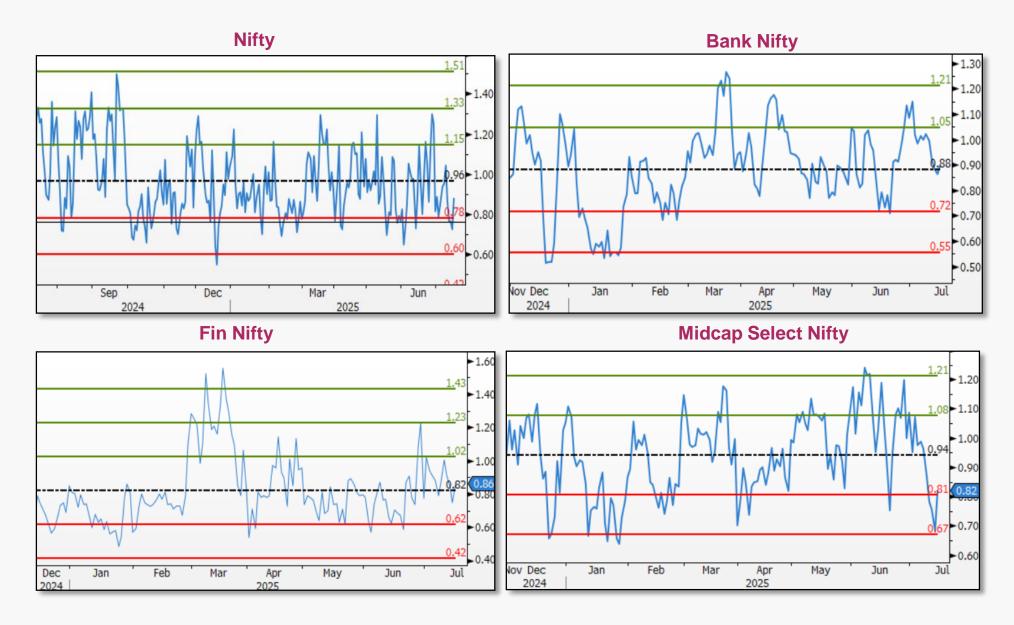
Daily Net Open Interest Change



DII and FII Daily Cash Market Flows

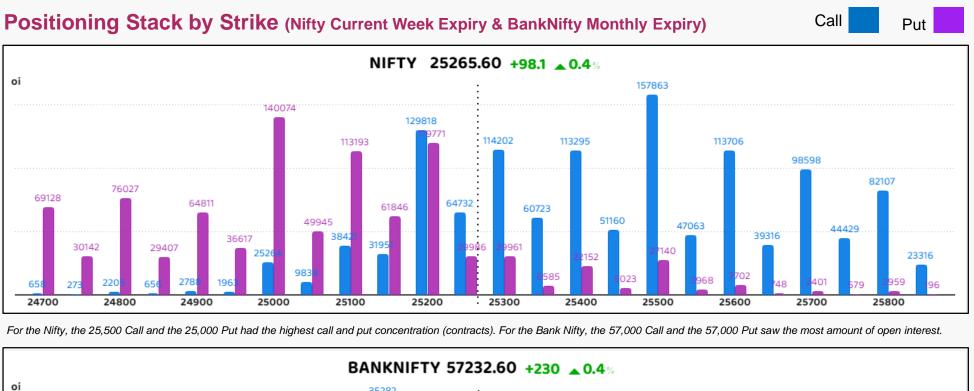






On the day immediately post expiration, PCR values will differ due to the way open interest data for the expired series is treated for the PCR calculation





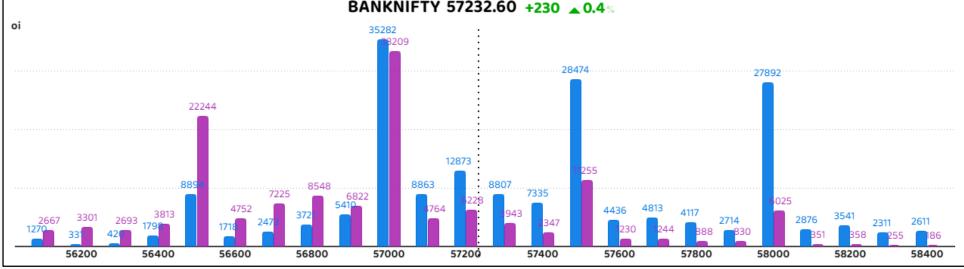


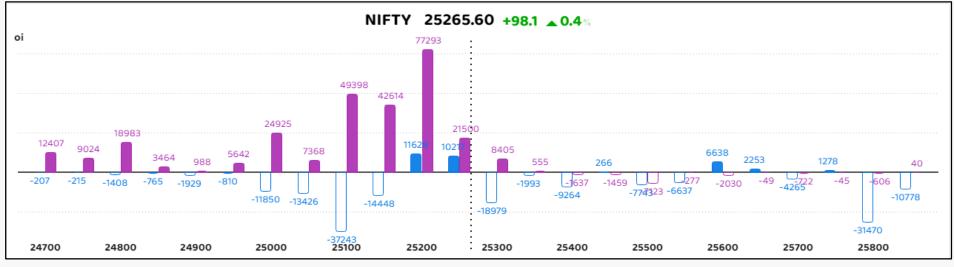
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session



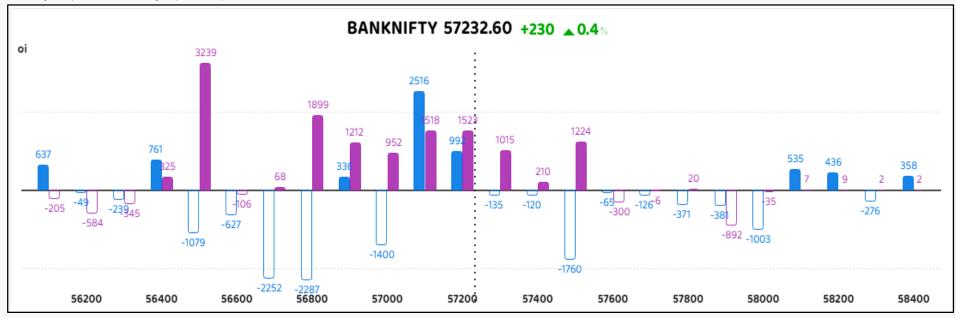
Call

Put

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



The largest open interest changes (contracts) were seen at the 25,100 Call and the 25,200 Put



For the Bank Nifty, the biggest open interest changes were seen at the 56,800 Call & the 56,500 Put



Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
BOSCH LTD	38320	1.3	31.1	34.9	3.3	90.9
PIRAMAL PHARMA	216.22	4.0	38.9	39.1	31.0	85.7
GLENMARK PHARMA	2226.1	0.3	22.9	47.4	15.9	83.6
MANKIND PHARMA	2651	-1.7	39.5	39.5	25.0	80.1
SBI CARDS & PAYMENTS	893.8	-1.1	33.5	36.9	4.6	77.4

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HCL TECH LTD	1566.4	-3.3	25.2	46.0	17.9	0.0
CUMMINS INDIA	3576.5	1.5	29.6	53.5	25.9	0.0
PI INDUSTRIES	4172	3.0	27.3	40.3	18.3	0.0
PHOENIX MILLS	1491.6	-1.3	33.5	64.3	30.5	0.0
INOX WIND LTD	164.75	-6.7	34.5	85.7	30.8	0.0



Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
GLENMARK PHARMA	2226.1	0.3	42.2	47.4	15.9	99.6
BOSCH LTD	38320	1.3	32.1	34.9	3.3	98.7
MANKIND PHARMA	2651	-1.7	36.6	39.5	25.0	97.5
KAYNES TECHNOLOGY	5975	-0.8	41.9	49.4	32.2	97.2
SBI CARDS & PAYMENTS	893.75	-1.1	29.6	36.9	4.6	89.8

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
HCL TECH LTD	1566.4	-3.3	17.2	46.0	17.2	0.0
CUMMINS INDIA	3576.5	1.5	25.4	53.5	25.4	0.0
PI INDUSTRIES	4172	3.0	16.1	40.3	16.1	0.0
PHOENIX MILLS	1491.6	-1.3	26.5	64.3	26.5	0.0
INOX WIND LTD	164.75	-6.7	24.4	85.7	24.4	0.0



Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
AARTI INDUS LTD	451.8	1.9	9653	1218	7.9
PIRAMAL PHARMA	216.22	4.0	17796	2658	6.7
ADITYA BIRLA FASHION	77.22	0.8	9305	1392	6.7
YES BANK LTD	20.46	2.4	20728	4101	5.1
PAGE INDUSTRIES	49020	0.5	5812	1169	5.0

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
NESTLE INDIA LTD	2416.3	1.0	4437	7061	1.6
GLENMARK PHARMA	2226.1	0.3	1406	1555	1.1
VEDANTA LTD	450	0.4	15165	13896	0.9
INOX WIND LTD	164.75	-6.7	8446	7072	0.8
HINDUSTAN UNILEVER	2526.9	0.4	17014	13901	0.8



Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
BOSCH LTD	38320	1.3	19291	19291	100.0
KAYNES TECHNOLOGY	5975	-0.8	5581	5581	100.0
BLUE STAR LTD	1882.3	2.9	3737	3737	100.0
TRENT LTD	5390	1.4	84226	86784	97.1
UNO MINDA LTD	1105.9	2.6	2701	2959	91.3

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
BOSCH LTD	38320	1.3	10809	10809	100.0
UNO MINDA LTD	1105.9	2.6	1154	1154	100.0
LAURUS LABS LTD	827.05	0.4	11241	11241	100.0
BLUE STAR LTD	1882.3	2.9	4625	4625	100.0
HINDUSTAN UNILEVER	2526.9	0.4	25672	25954	98.9



Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
PATANJALI FOODS	1744.5	4.2	33436	33436	100.0
TATA TECHNOLOGIES	731.95	2.1	62298	62298	100.0
PIRAMAL PHARMA	216.22	4.0	17796	17796	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
1					



Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
HCL TECH LTD	1566.4	-3.3	47851	19419	2.5
BOSCH LTD	38320	1.3	19291	8108	2.4
PIRAMAL ENTERPRISES	1323.3	2.3	6616	2863	2.3
AVENUE SUPERMART	4026.7	0.4	24370	11549	2.1
TATA CONSULTANCY	3252.3	0.9	140099	70104	2.0

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
BOSCH LTD	38320	1.3	10809	4175	2.6
TATA ELXSI LTD	6380	3.3	10808	4180	2.6
PIRAMAL ENTERPRISES	1323.3	2.3	4737	1955	2.4
ICICI PRUDENTIAL	669.6	-0.4	4776	2370	2.0
HCL TECH LTD	1566.4	-3.3	20870	11063	1.9



Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
PIRAMAL PHARMA	216.22	4.0	17796	2625	6.8
ICICI PRUDENTIAL	669.6	-0.4	46607	7299	6.4
HCL TECH LTD	1566.4	-3.3	198022	32117	6.2
PATANJALI FOODS	1744.5	4.2	33436	6321	5.3
PIRAMAL ENTERPRISES	1323.3	2.3	44638	8834	5.1

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
ICICI PRUDENTIAL	669.6	-0.4	23934	2922	8.2
HCL TECH LTD	1566.4	-3.3	136115	19076	7.1
PIRAMAL ENTERPRISES	1323.3	2.3	15257	3070	5.0
TATA TECHNOLOGIES	731.95	2.1	25499	5652	4.5
INOX WIND LTD	164.75	-6.7	7072	1632	4.3



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	2700	1539000	3.9%	2598	2700	1792200	3.9%	ITC	420	11560000	-0.5%	422	420	5507200	-0.5%
ADANIPORTS	1500	1609775	3.8%	1445	1400	1311000	-3.1%	JIOFIN	330	9618550	2.7%	321	300	5224050	-6.6%
APOLLOHOSP	7600	260125	3.3%	7361	7000	169750	-4.9%	JSWSTEEL	1180	1374975	14.0%	1035	1000	687825	-3.4%
ASIANPAINT	2500	1783000	4.4%	2394	2400	442000	0.3%	KOTAKBANK	2300	942800	5.1%	2188	2100	763200	-4.0%
AXISBANK	1200	7625000	2.9%	1166	1200	1703125	2.9%	LT	3700	1490125	5.9%	3494	3500	595350	0.2%
BAJAJ-AUTO	9000	209025	8.3%	8311	8000	123375	-3.7%	M&M	3200	1422400	2.3%	3129	3200	424200	2.3%
BAJAJFINSV	2100	1321500	3.1%	2037	1980	472000	-2.8%	MARUTI	12800	564850	2.1%	12536	12600	94850	0.5%
BAJFINANCE	1000	2850000	7.7%	928	900	1908000	-3.1%	NESTLEIND	2500	411750	3.5%	2416	2400	217750	-0.7%
BEL	430	11300250	5.1%	409	400	6386850	-2.2%	NTPC	345	32658000	0.9%	342	345	5811000	0.9%
BHARTIARTL	2040	3181075	5.5%	1934	1900	894425	-1.8%	ONGC	250	21030750	2.6%	244	240	2556000	-1.5%
CIPLA	1600	889125	7.3%	1491	1340	393750	-10.1%	POWERGRID	300	5424500	0.7%	298	300	2050100	0.7%
COALINDIA	400	9207000	3.5%	386	400	3385800	3.5%	RELIANCE	1550	6381000	4.3%	1485	1500	2562000	1.0%
DRREDDY	1300	1491250	3.1%	1261	1100	794375	-12.8%	SBILIFE	1860	1504500	1.9%	1825	1820	384000	-0.3%
EICHERMOT	5800	260400	3.7%	5591	5800	116375	3.7%	SBIN	820	19258500	0.4%	816	800	5361000	-2.0%
ETERNAL	290	7907925	8.8%	266	250	4190400	-6.2%	SHRIRAMFIN	700	1767975	2.3%	684	700	649275	2.3%
GRASIM	2820	254750	1.5%	2779	2800	132250	0.8%	SUNPHARMA	1720	2483600	-0.4%	1728	1700	890050	-1.6%
HCLTECH	1700	1954750	8.5%	1566	1500	805350	-4.2%	TATACONSUM	1230	938850	13.7%	1082	980	566500	-9.4%
HDFCBANK	2020	5338850	1.2%	1996	2000	1915650	0.2%	TATAMOTORS	700	7716000	2.3%	684	680	3920000	-0.6%
HDFCLIFE	820	3248300	8.3%	757	740	1108800	-2.2%	TATASTEEL	170	21191500	6.9%	159	160	8723000	0.6%
HEROMOTOCO	4500	837000	1.0%	4454	4300	352500	-3.5%	TCS	3500	4129475	7.6%	3252	3200	1168300	-1.6%
HINDALCO	700	3662400	4.3%	671	670	1190000	-0.1%	TECHM	1670	1107600	5.8%	1579	1390	354600	-12.0%
HINDUNILVR	2560	1125000	1.3%	2527	2400	808500	-5.0%	TITAN	3500	1076425	2.5%	3415	3400	461825	-0.4%
ICICIBANK	1450	2569000	1.3%	1431	1400	1868300	-2.2%	TRENT	6000	1103200	11.3%	5390	5500	373600	2.0%
INDUSINDBK	900	3000900	2.2%	881	850	961800	-3.5%	ULTRACEMCO	13000	123000	4.0%	12502	12000	61900	-4.0%
INFY	1600	3989200	0.9%	1586	1600	1701600	0.9%	WIPRO	270	6237000	4.9%	257	240	2721000	-6.8%

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**

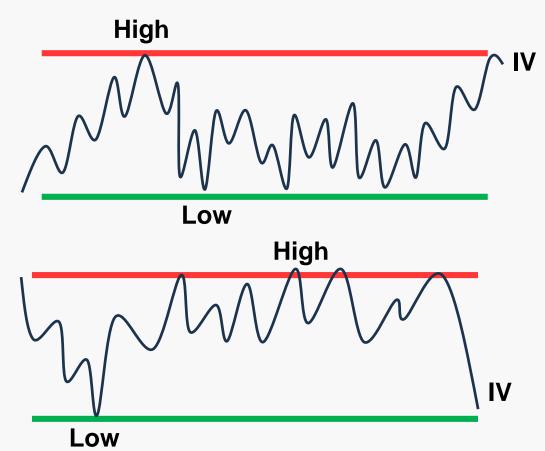
*ATM IV is the midpoint of the IV for the ATM call and put respectively



- 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): <u>www.nseindia.com</u>, 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.

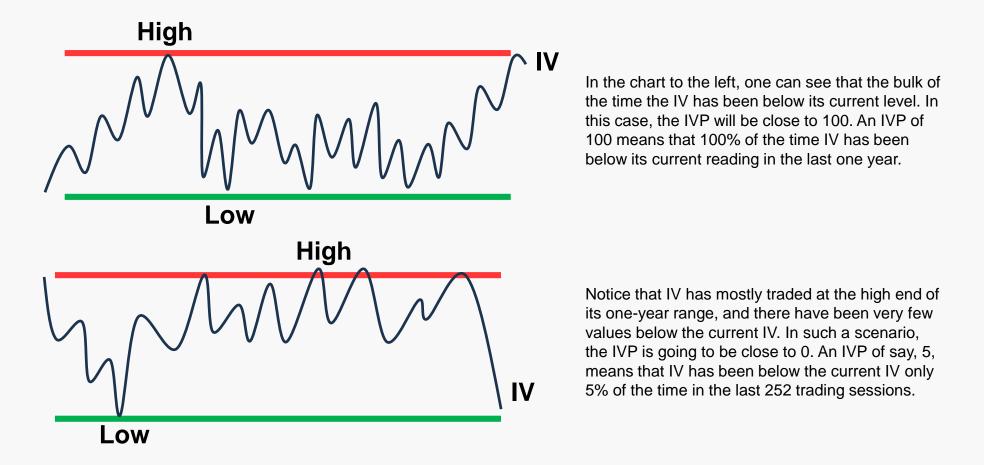
In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

Appendix



Appendix

• 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.





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