



Daily Derivatives Report

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Nifty Futures			Bank Nifty Futures Volat			Volatility Insig	olatility Insights		
	Value	Change		Value	Change		Value	Change	
Most recent settlement	24,832	0.2%▲	Most recent settlement	55,142	0.1%▲	India VIX Index	17.55	0.16▲	
Open Interest (OI)	1,85,09,250	5.9% ▲	Open interest (OI)	21,87,380	0.1%▼	Nifty ATM IV (%)	15.60	0.1▼	
Change in OI (abs)	1,85,09,250	10,33,800	Change in OI (abs)	21,87,380	1,360▼	Bank Nifty ATM IV (%)	16.70	0.1 🛦	
Premium / Discount (Abs)	19	72▼	Premium / Discount (Abs)	67	160▼	PCR (Nifty)	0.81	0.12▲	
Inference	Long Bui	ild Up	Inference	Short C	overing	PCR (Bank Nifty)	0.79	0.02	

The Long Ratio for FII Index Futures jump at 37.4%, up from 37 % in the last session.

Single Stock Futures Movers

Long Build	Long Buildup (Open Interest Higher + Price Higher)			her) Short Buildup (Open Interest Higher + Price Lower)					
Symbol	Open Interest	Chg (%)	Price	Chg (%)	Symbol	Open Interest	Chg (%)	Price	Chg (%)
BEL	11,62,34,400	7.8%	383.35	5.0%	DIXON	19,18,150	36.4%	15634	-6.0%
ASTRAL	74,22,300	7.2%	1381.6	1.1%	HFCL	8,12,66,200	11.7%	84.94	-1.3%
HINDCOPPER	3,87,72,150	6.1%	229.6	2.0%	INDUSINDBK	4,21,98,400	3.7%	772.95	-1.6%
PATANJALI	60,08,100	5.6%	1730	1.1%	ITC	17,53,45,600	3.6%	431.85	-0.6%
KPITTECH	30,86,800	4.0%	1335.1	1.1%	PIIND	17,94,550	3.4%	3712.7	-0.8%

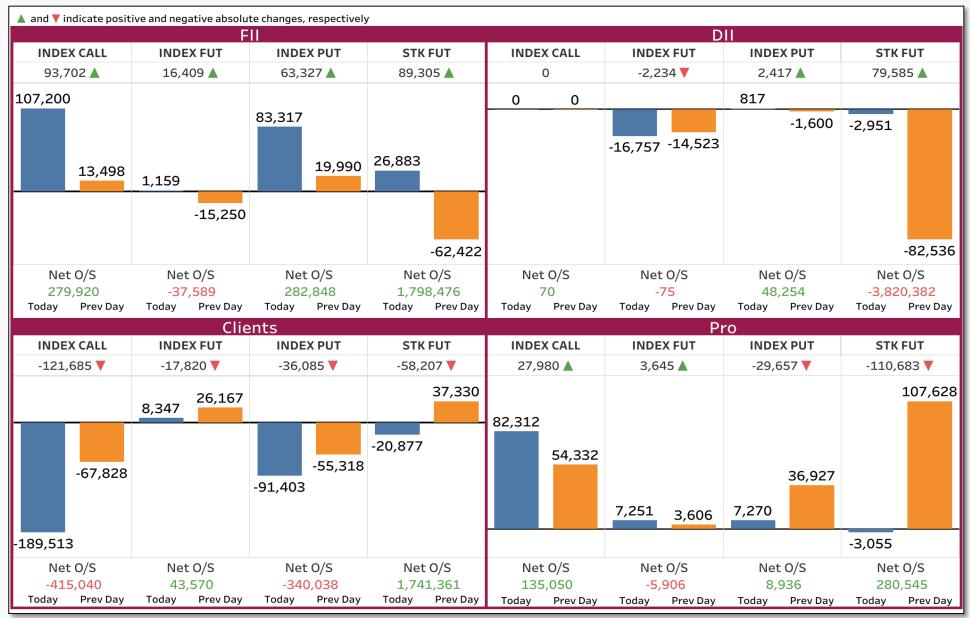
Short Covering (Open Interest Lower + Price Higher)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
NYKAA	3,32,82,300	-5.5%	200.64	0.7%			
MFSL	63,48,000	-4.0%	1396.6	1.3%			
NCC	1,49,94,925	-3.1%	234.09	1.2%			
ESCORTS	10,81,200	-2.9%	3524.5	0.3%			
BANDHANBNK	9,21,14,400	-2.6%	168.25	1.7%			

Long Unwinding (Open Interest Lower + Price Lower)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
ABFRL	1,71,08,000	-38.9%	268.75	-3.1%			
AARTIIND	1,28,55,675	-3.3%	469.2	-0.8%			
RAMCOCEM	63,94,550	-2.9%	980.35	-0.5%			
APOLLOTYRE	50,26,900	-1.7%	488.25	-0.3%			
KEI	13,54,525	-1.6%	3443.4	-0.7%			

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

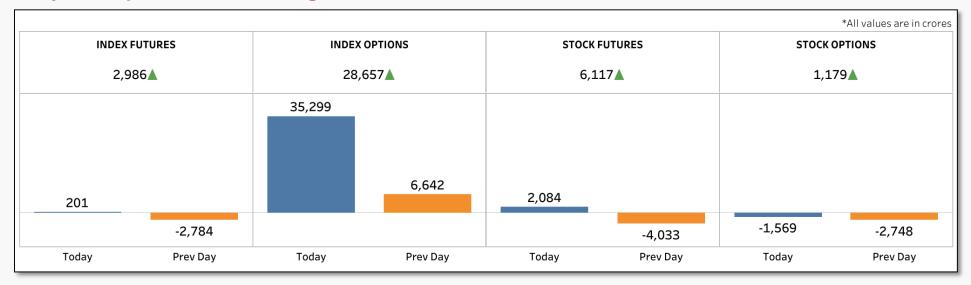


Open Interest Trends by Participant

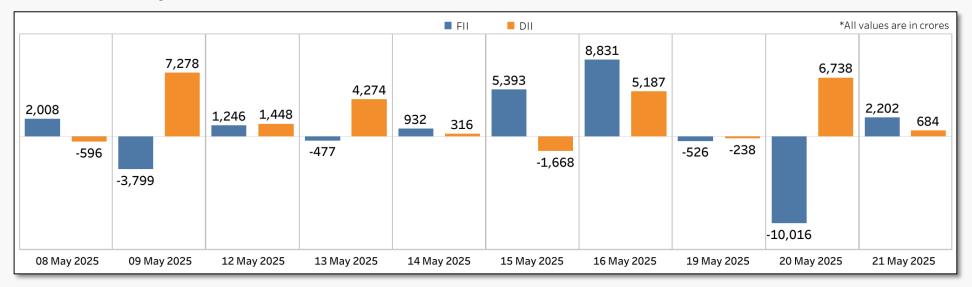




Daily Net Open Interest Change



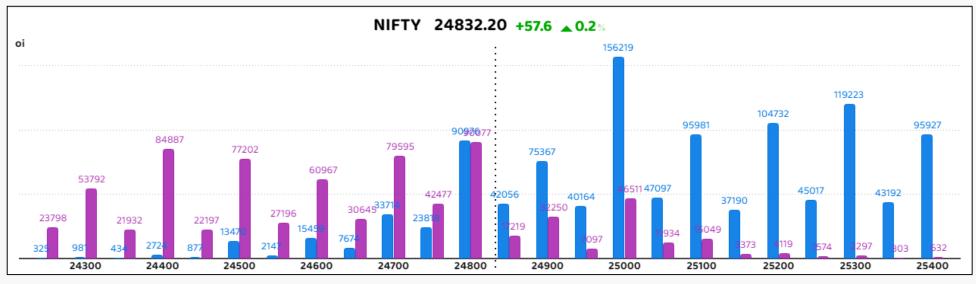
DII and FII Daily Cash Market Flows

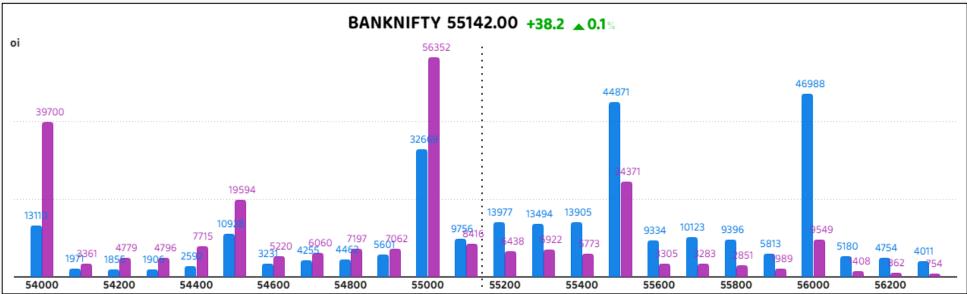




Positioning Stack by Strike (Nifty Current Week Expiry & BankNifty Monthly Expiry)

Call Put





For the Nifty, the 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.

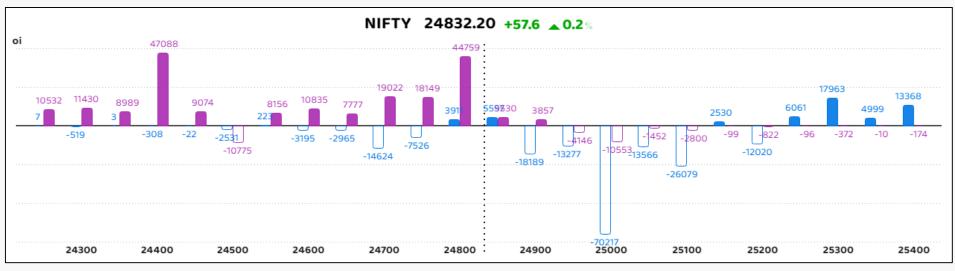
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session



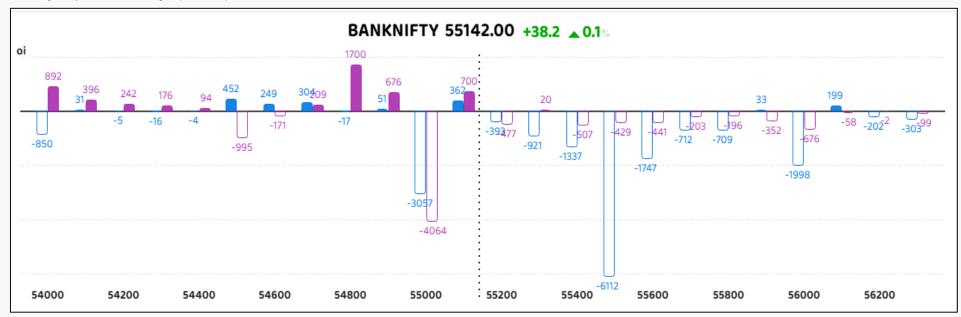
Call

Put

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



The largest open interest changes (contracts) were seen at the 25,000 Call and the 24,400 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,500 Call & the 55,000 Put



Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ASTRAL LTD	1377.7	0.9	37.9	42.9	2.9	87.6
DEEPAK NITRITE	2090.2	0.6	44.9	49.1	21.4	84.8
BAJAJ AUTO LTD	8687.5	1.4	31.2	36.4	2.1	84.8
DIXON TECHNOLOGI	15612	-5.8	43.3	53.0	1.8	81.0
HFCL LTD	85.13	-1.1	54.3	61.5	33.2	74.6

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ADANI GREEN ENER	996.5	1.3	45.1	74.3	45.1	0.0
ADITYA BIRLA FAS	268.95	-3.1	10.4	66.6	9.9	0.9
BANK OF BARODA	241.3	2.1	27.3	66.9	24.3	7.0
HDFC LIFE INSURA	759.7	1.7	24.8	80.6	19.6	8.5
INDIAN RENEWABLE	172.21	1.6	45.3	69.2	42.7	9.7



Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
DEEPAK NITRITE	2090.2	0.6	44.9	49.1	21.4	99.1
ASTRAL LTD	1377.7	0.9	37.9	42.9	2.9	96.6
INFO EDGE	1475.5	2.6	43.4	54.0	23.7	96.4
HFCL LTD	85.13	-1.1	54.3	61.5	33.2	95.4
BALKRISHNA INDS	2665.6	0.8	36.7	45.7	17.8	93.7

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ADANI GREEN ENER	996.5	1.3	45.1	74.3	45.1	0.0
ADITYA BIRLA FAS	268.95	-3.1	10.4	66.6	9.9	0.5
MANAPPURAM FINAN	228.06	0.0	14.0	64.2	2.7	5.2
FED BANK LTD	200.82	1.3	24.3	130.9	7.0	10.2
MAX FINANCIAL SE	1396.7	1.4	27.7	49.3	18.6	11.6



Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
YES BANK LTD	20.98	0.8	14370	2433	5.9
PHOENIX MILLS	1617.8	2.4	11205	2126	5.3
ALKEM LABORATORI	5374	2.2	20332	3932	5.2
DR REDDY'S LABS	1224.7	0.0	61593	12897	4.8
TORRENT PHARMA	3289	1.5	65121	15516	4.2

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
NCC LTD	233.54	1.1	9355	18176	1.9
IIFL FINANCE LTD	413.15	1.6	1804	2563	1.4
BIRLASOFT LTD	424	0.3	5490	7408	1.3
JINDAL STAINLESS	643.4	0.3	1241	1644	1.3
INDUSIND BANK	769.95	-1.6	87894	104896	1.2



Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
INDIAN BANK	601.7	-1.5	4436	4436	100.0
TITAGARH RAIL SY	904.5	1.8	11875	11875	100.0
MAX HEALTHCARE I	1142.1	-1.9	7124	7124	100.0
ASTRAL LTD	1377.7	0.9	16491	16491	100.0
VARUN BEVERAGES	479.15	-0.2	28741	28741	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
INDIAN BANK	601.7	-1.5	2766	2766	100.0
DLF LTD	775.15	2.9	21640	21640	100.0
IIFL FINANCE LTD	413.15	1.6	4608	4608	100.0
SOLAR INDUSTRIES	14192	5.2	4768	4768	100.0
APL APOLLO TUBES	1814.4	1.1	6945	6945	100.0



Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
SOLAR INDUSTRIES	14192	5.2	78418	78418	100.0
TORRENT PHARMA	3289	1.5	65121	65121	100.0
BHARAT ELECTRON	383	5.3	244424	244424	100.0
PHOENIX MILLS	1617.8	2.4	11205	11502	97.4

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
SOLAR INDUSTRIES	14192	5.2	28221	28221	100.0
BHARAT ELECTRON	383	5.3	124088	124088	100.0
HFCL LTD	85.13	-1.1	10319	11177	92.3
TORRENT PHARMA	3289	1.5	15516	18417	84.3



Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
TORRENT PHARMA	3289	1.5	6095.0	1942.6	3.1
DIXON TECHNOLOGI	15612	-5.8	73857.0	24171.4	3.1
SOLAR INDUSTRIES	14192	5.2	5105.0	2000.1	2.6
TORRENT POWER LT	1398.7	0.6	4466.0	1760.8	2.5
PATANJALI FOODS	1725	1.1	12009.0	4777.1	2.5

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
SOLAR INDUSTRIES	14192	5.2	4768	1332	3.6
NCC LTD	233.54	1.1	8934	3405	2.6
BHARAT ELECTRON	383	5.3	41154	17776	2.3
SIEMENS LTD	3290.8	5.2	17078	7590	2.3
TITAGARH RAIL SY	904.5	1.8	7120	3255	2.2



Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
TORRENT PHARMA	3289	1.5	65121	6278	10.4
UNITED SPIRITS	1557.4	0.1	58578	8915	6.6
DIXON TECHNOLOGI	15612	-5.8	440065	70149	6.3
POWER FINANCE	412.7	1.6	101118	21310	4.7
BHARAT ELECTRON	383	5.3	244424	64515	3.8

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
TORRENT PHARMA	3289	1.5	15516	1869	8.3
DIXON TECHNOLOGI	15612	-5.8	279416	45944	6.1
UNITED SPIRITS	1557.4	0.1	21903	4045	5.4
POWER FINANCE	412.7	1.6	50664	12878	3.9
PI INDUSTRIES	3709.9	-0.5	18819	4803	3.9



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	1817700	4.0%	2500	2600	1320900	4.0%	ITC	440	7064000	1.6%	433	430	4835200	-0.7%
ADANIPORTS	1400	1839600	1.1%	1385	1200	744000	-13.3%	JIOFIN	300	6329400	9.3%	274	250	3801600	-8.9%
APOLLOHOSP	7200	169750	3.1%	6984	6150	89500	-11.9%	JSWSTEEL	1100	882225	9.9%	1001	950	889650	-5.1%
ASIANPAINT	2500	1254200	8.1%	2312	2300	498400	-0.5%	KOTAKBANK	2200	1821600	6.2%	2071	2080	628000	0.4%
AXISBANK	1220	3121250	1.9%	1198	1200	1408750	0.2%	LT	3600	907050	0.3%	3589	3600	576900	0.3%
BAJAJ-AUTO	8800	293625	1.3%	8688	8000	97950	-7.9%	M&M	3200	1106000	3.5%	3091	3000	534275	-2.9%
BAJAJFINSV	2100	2247000	3.1%	2037	2000	593500	-1.8%	MARUTI	13000	420700	3.1%	12615	12000	271850	-4.9%
BAJFINANCE	10000	821375	8.7%	9198	9000	587625	-2.1%	NESTLEIND	2500	742400	4.5%	2393	2360	111400	-1.4%
BEL	380	10946850	-0.8%	383	350	9462000	-8.6%	NTPC	370	10972500	6.9%	346	345	3412500	-0.3%
BHARTIARTL	1900	5307175	4.3%	1823	1800	1496250	-1.2%	ONGC	250	11324775	0.5%	249	240	4693150	-3.5%
CIPLA	1600	1862900	7.9%	1482	1480	465075	-0.2%	POWERGRID	310	4539600	4.7%	296	300	1969200	1.3%
COALINDIA	410	4670400	1.1%	405	400	3006150	-1.3%	RELIANCE	1450	7519500	1.5%	1429	1300	4302000	-9.0%
DRREDDY	1240	1806875	1.2%	1225	1150	668750	-6.1%	SBILIFE	1780	1653750	0.9%	1764	1720	419625	-2.5%
EICHERMOT	5600	364000	3.5%	5409	4500	134750	-16.8%	SBIN	800	14466000	1.6%	787	800	4656000	1.6%
ETERNAL	240	9982000	4.4%	230	230	6398000	0.0%	SHRIRAMFIN	700	2045250	6.4%	658	600	1134000	-8.8%
GRASIM	3120	319000	15.3%	2707	2600	188750	-3.9%	SUNPHARMA	1900	2112600	9.7%	1732	1700	752500	-1.8%
HCLTECH	1700	1488200	2.9%	1652	1200	712600	-27.4%	TATACONSUM	1200	1408584	5.4%	1139	1100	466032	-3.4%
HDFCBANK	2000	5616050	3.8%	1927	1800	2182950	-6.6%	TATAMOTORS	800	7113150	10.1%	727	700	4137650	-3.7%
HDFCLIFE	800	2274800	5.3%	760	720	1630200	-5.2%	TATASTEEL	160	24761000	-1.0%	162	155	16736500	-4.1%
HEROMOTOCO	4500	466950	5.5%	4264	4100	243300	-3.8%	TCS	3600	1087625	2.1%	3526	3400	589750	-3.6%
HINDALCO	670	3802400	1.1%	663	650	1379000	-2.0%	TECHM	1600	838200	0.1%	1598	1500	486000	-6.1%
HINDUNILVR	2500	1452900	5.8%	2364	2400	477000	1.5%	TITAN	3500	304675	-2.2%	3581	3500	336000	-2.2%
ICICIBANK	1460	4348400	1.1%	1445	1400	2125900	-3.1%	TRENT	6000	497600	10.2%	5444	5200	236900	-4.5%
INDUSINDBK	850	3350500	10.4%	770	750	3601500	-2.6%	ULTRACEMCO	13000	261850	11.4%	11666	10000	89200	-14.3%
INFY	1600	3680400	2.0%	1569	1500	1367200	-4.4%	WIPRO	300	10554000	19.6%	251	250	3603000	-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**

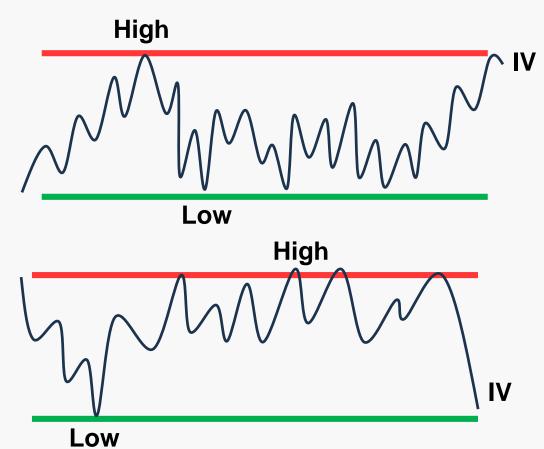
*ATM IV is the midpoint of the IV for the ATM call and put respectively



- 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): <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.

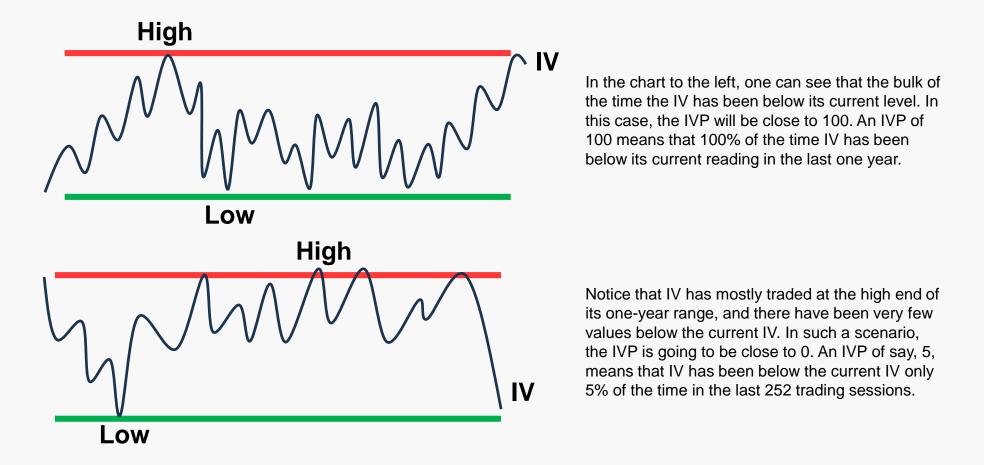
In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

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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