

Daily Derivatives Report

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Nifty Futures		Bank Nifty Futures			Volatility Insights			
	Value	Change		Value	Change		Value	Change
Most recent settlement	25,614	0.5%▼	Most recent settlement	57,648	0.2%▼	India VIX Index	12.79	0.40 ▲
Open Interest (OI)	1,61,63,175	1.9%▼	Open interest (OI)	24,94,870	0.2%▲	Nifty ATM IV (%)	11.89	0.4
Change in OI (abs)	1,61,63,175	3,15,750▼	Change in OI (abs)	24,94,870	6,020▲	Bank Nifty ATM IV (%)	12.75	0.5
Premium / Discount (Abs)	97	15▼	Premium / Discount (Abs)	204	37▲	PCR (Nifty)	0.81	0.44▼
Inference	Long Unw	inding	Inference	Short B	uild Up	PCR (Bank Nifty)	1.08	0.05▼

The FII Long Ratio in Index Futures drop to 36.4%, down from 38.4% in the previous session.

Single Stock Futures Movers

Long Build	Long Buildup (Open Interest Higher + Price Higher)				Short Build	up (Open Intere	st Higher + I	Price Lower)
Symbol	Open Interest	Chg (%)	Price	Chg (%)	Symbol	Open Interest	Chg (%)	Price	Chg (%)
RBLBANK	9,68,21,625	14.2%	249.57	3.5%	AMBER	1,57,900	295.7%	6814.5	-1.1%
ANGELONE	22,77,000	9.9%	2941.9	0.3%	PGEL	17,40,200	84.6%	759.9	-0.6%
PATANJALI	79,67,400	9.4%	1658.2	0.6%	360ONE	5,44,500	59.0%	1201.6	-0.3%
CGPOWER	1,23,47,100	9.2%	685.9	1.2%	KFINTECH	4,54,500	35.0%	1356.9	-0.1%
KALYANKJIL	1,88,58,750	6.0%	559.15	1.8%	APLAPOLLO	42,13,650	13.7%	1748.9	-0.8%

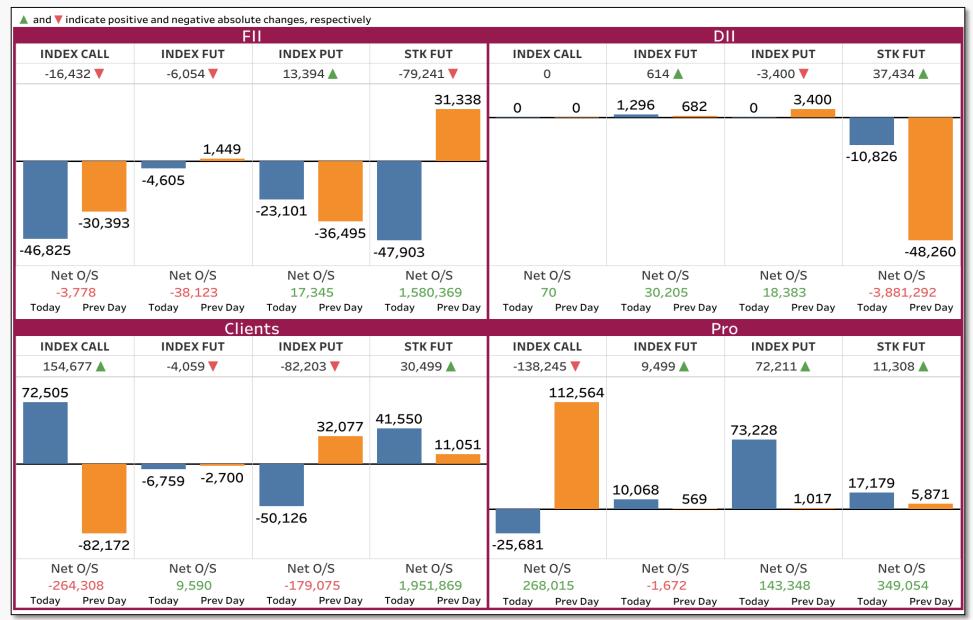
Short Covering (Open Interest Lower + Price Higher)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
MAZDOCK	31,48,950	-8.3%	3265.3	2.5%			
KAYNES	6,51,200	-6.2%	6113.5	3.5%			
DIXON	17,72,600	-5.3%	15045	3.2%			
INDIGO	78,89,400	-5.0%	5995.5	2.7%			
LTF	5,99,24,660	-4.2%	206.77	2.9%			

Long Unwinding (Open Interest Lower + Price Lower)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
PEL	83,52,000	-4.0%	1149.2	-0.6%			
OBEROIRLTY	48,19,850	-2.4%	1909.4	-0.5%			
ICICIBANK	8,99,69,600	-2.1%	1452.8	-1.0%			
ATGL	47,42,500	-2.1%	678.75	-1.2%			
PHOENIXLTD	33,63,150	-1.6%	1571.8	-0.6%			

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

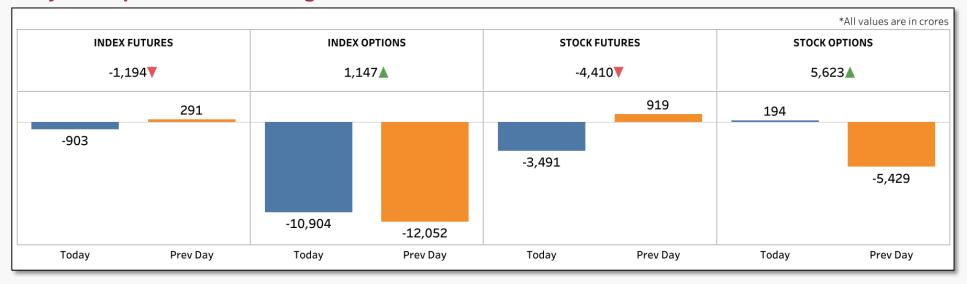


Open Interest Trends by Participant

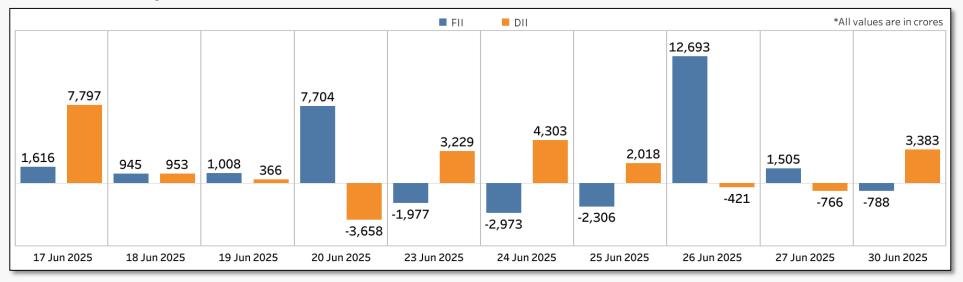




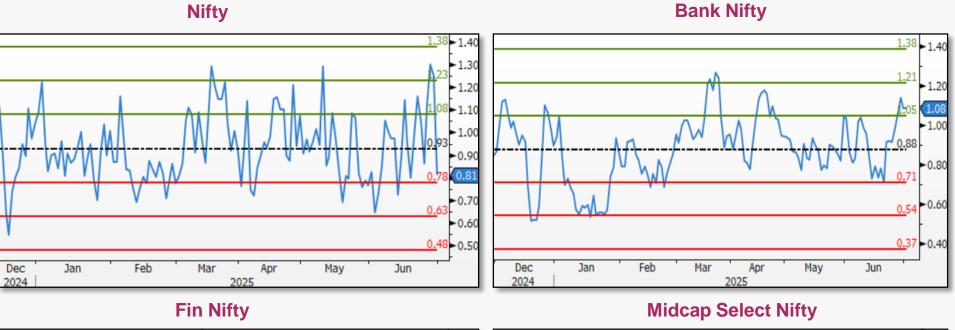
Daily Net Open Interest Change



DII and FII Daily Cash Market Flows





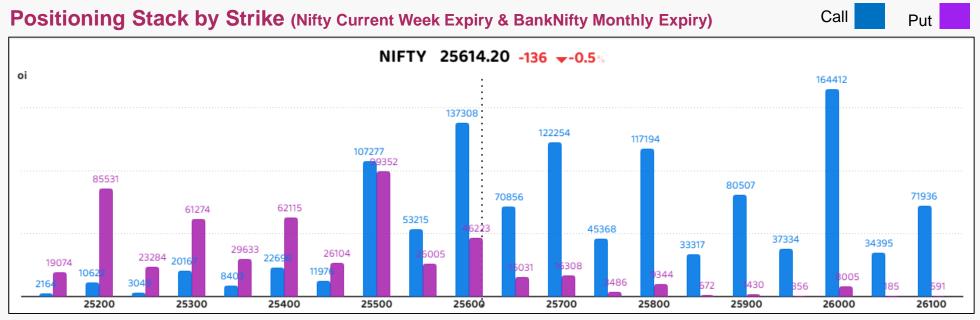


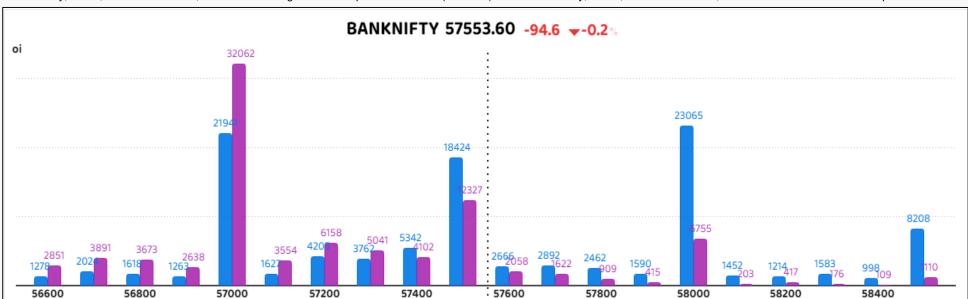




On the day immediately post expiration, PCR values will differ due to the way open interest data for the expired series is treated for the PCR calculation



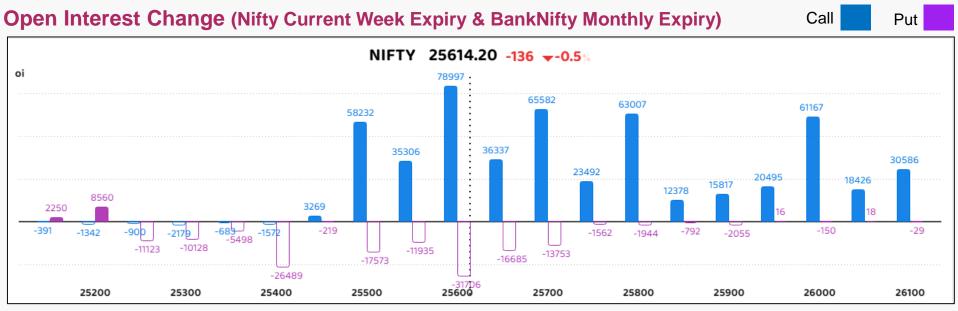




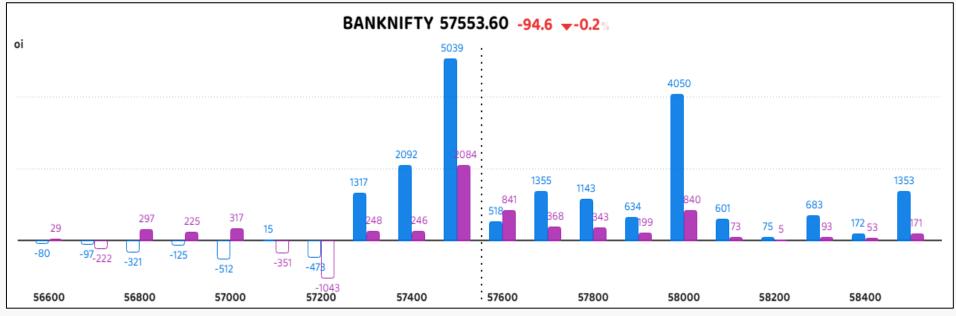
For the Nifty, the 26,000 Call and the 25,500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 58,000 Call and the 57,000 Put saw the most amount of open interest.

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





The largest open interest changes (contracts) were seen at the 25,600 Call and the 25,600 Put



For the Bank Nifty, the biggest open interest changes were seen at the 57,500 Call & the 57,500 Put



Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
SBI CARDS & PAYMENTS	953.1	-3.9	29.1	36.9	4.6	75.9
MARUTI SUZUKI	12400	-1.9	20.6	29.9	0.4	68.5
DIXON TECHNOLOGIES	14983	3.5	35.9	53.0	1.8	66.6
ASTRAL LTD	1506.8	0.4	25.6	38.4	2.9	63.9
BAJAJ AUTO LTD	8376	-0.7	23.8	36.4	2.1	63.3

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HINDUSTAN ZINC	450.85	-0.1	28.2	54.2	28.2	0.0
ADANI GREEN ENERGY	1025.6	1.0	36.1	74.3	36.1	0.0
GMR AIRPORTS LTD	85.19	0.5	24.2	51.9	24.2	0.0
IRCTC	781.5	-0.5	20.7	44.6	20.7	0.0
BLUE STAR LTD	1635.6	0.7	28.4	37.9	28.4	0.0



Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
M&M FIN SERVICES	269.95	-1.0	39.5	50.0	23.4	93.1
SBI CARDS & PAYMENTS	953.1	-3.9	29.1	36.9	4.6	87.7
HCL TECH LTD	1728.6	0.3	26.3	46.0	17.9	77.9
KAYNES TECHNOLOGY	6095	3.9	37.0	49.4	32.2	65.9
INDUSIND BANK	872.1	1.7	31.2	77.2	0.5	63.7

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
HINDUSTAN ZINC	450.85	-0.1	28.2	54.2	28.2	0.0
ADANI GREEN ENERGY	1025.6	1.0	36.1	74.3	36.1	0.0
GMR AIRPORTS LTD	85.19	0.5	24.2	51.9	24.2	0.0
IRCTC	781.5	-0.5	20.7	44.6	20.7	0.0
BLUE STAR LTD	1635.6	0.7	28.4	37.9	28.4	0.0



Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
RAIL VIKAS NIGAM	397.7	0.7	9923	1425	7.0
PATANJALI FOODS	1650.6	0.2	7475	1199	6.2
UNO MINDA LTD	1104.3	-0.5	5744	1136	5.1
SIEMENS LTD	3251.5	2.3	53970	11258	4.8
DIVI LABS LTD	6809.5	2.3	22763	4940	4.6

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
CYIENT LTD	1288.6	-1.2	2244	4724	2.1
TORRENT POWER LTD	1467.6	-0.4	1003	1386	1.4
APL APOLLO TUBES	1739.1	-1.0	2811	2840	1.0
DABUR INDIA LTD	485.25	-0.2	4000	3863	1.0
GODREJ PROPERTIES	2343.1	-0.8	6173	5926	1.0



Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
UNO MINDA LTD	1104.3	-0.5	2142	2142	100.0
KAYNES TECHNOLOGY	6095	3.9	3960	4010	98.8

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
	NO STOCK OPTION MI	ET THE CONDI ⁻	TION MENTIONED I	N THE FOOTNOTE	



Call Volume Relative to Record High

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

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV		
NO STOCK OPTION MET THE CONDITION 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
UNO MINDA LTD	1104.3	-0.5	2142	1337	1.6
KAYNES TECHNOLOGY	6095	3.9	3960	2553	1.6
TORRENT PHARMA	3408.2	2.0	3786	2443	1.5
KPIT TECHNOLOGIES	1258.7	-0.7	7719	5386	1.4
RBL BANK LTD	248.48	3.8	6583	4976	1.3

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
KPIT TECHNOLOGIES	1258.7	-0.7	4521	2643	1.7
TORRENT PHARMA	3408.2	2.0	1714	1119	1.5
SHREE CEMENT	31030	0.0	1686	1177	1.4
LAURUS LABS LTD	724.85	3.3	3489	2940	1.2
KAYNES TECHNOLOGY	6095	3.9	1317	1119	1.2



Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
TORRENT PHARMA	3408.2	2.0	43479	7069	6.2
RBL BANK LTD	248.48	3.8	27874	7074	3.9
KAYNES TECHNOLOGY	6095	3.9	35649	10311	3.5
AUROBINDO PHARMA	1134.8	1.2	22079	9191	2.4
LIC	972.8	1.6	22213	10017	2.2

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
TORRENT PHARMA	3408.2	2.0	11455	2291	5.0
HERO MOTOCORP LTD	4237.1	-1.9	23525	14447	1.6
STATE BANK IND	820.35	1.9	83645	55895	1.5
AUROBINDO PHARMA	1134.8	1.2	8005	5480	1.5
SRF LTD	3242.1	2.1	7493	5250	1.4



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	1542600	3.1%	2619	2700	1762500	3.1%	ITC	420	7184000	0.9%	416	420	5019200	0.9%
ADANIPORTS	1500	1231675	3.4%	1450	1400	1349475	-3.5%	JIOFIN	330	7388400	1.0%	327	300	5181750	-8.2%
APOLLOHOSP	7500	157875	3.6%	7242	7000	149625	-3.3%	JSWSTEEL	1020	795150	0.0%	1021	1000	474525	-2.0%
ASIANPAINT	2400	487500	2.5%	2341	2200	319500	-6.0%	KOTAKBANK	2200	799600	1.7%	2164	2100	676800	-2.9%
AXISBANK	1300	1445625	8.4%	1199	1200	1325000	0.1%	LT	3800	679525	3.5%	3670	3500	357525	-4.6%
BAJAJ-AUTO	9000	100725	7.4%	8376	8000	63900	-4.5%	M&M	3200	720800	0.5%	3183	3200	355600	0.5%
BAJAJFINSV	2100	568000	2.1%	2056	1980	383000	-3.7%	MARUTI	13000	205900	4.8%	12400	12500	73150	0.8%
BAJFINANCE	950	2801250	1.4%	937	900	1983000	-3.9%	NESTLEIND	2500	260000	1.4%	2465	2300	136500	-6.7%
BEL	440	6443850	4.4%	422	400	5517600	-5.1%	NTPC	350	4449000	4.5%	335	330	2557500	-1.5%
BHARTIARTL	2000	1086800	-0.5%	2010	1900	924825	-5.5%	ONGC	250	8336250	2.4%	244	245	2727000	0.3%
CIPLA	1680	420375	11.6%	1506	1500	339750	-0.4%	POWERGRID	300	4282600	0.0%	300	290	2331300	-3.3%
COALINDIA	400	5900850	2.1%	392	400	3793500	2.1%	RELIANCE	1600	3834000	6.6%	1501	1500	2143500	0.0%
DRREDDY	1400	911250	9.1%	1283	1200	348750	-6.5%	SBILIFE	1900	300375	3.4%	1838	1800	158250	-2.1%
EICHERMOT	5800	161350	2.5%	5657	5500	121450	-2.8%	SBIN	850	5883000	3.6%	820	800	5538000	-2.5%
ETERNAL	290	5065825	9.8%	264	250	4100675	-5.4%	SHRIRAMFIN	700	1185525	-1.0%	707	700	459525	-1.0%
GRASIM	3000	200750	5.5%	2845	2740	113250	-3.7%	SUNPHARMA	1700	857850	1.5%	1676	1500	348600	-10.5%
HCLTECH	1960	511700	13.4%	1729	1700	257600	-1.7%	TATACONSUM	1130	311300	2.8%	1099	990	279950	-9.9%
HDFCBANK	2100	2593250	4.9%	2002	2000	1796850	-0.1%	TATAMOTORS	700	5097600	1.7%	688	680	3334400	-1.2%
HDFCLIFE	800	1340900	-1.8%	814	740	955900	-9.1%	TATASTEEL	170	10004500	6.4%	160	160	6990500	0.2%
HEROMOTOCO	4400	486750	3.8%	4237	4300	213300	1.5%	TCS	3500	1091300	1.1%	3462	3400	695450	-1.8%
HINDALCO	700	2297400	1.0%	693	670	950600	-3.3%	TECHM	1700	898800	0.8%	1687	1700	390600	0.8%
HINDUNILVR	2400	1328400	4.6%	2295	2300	1028400	0.2%	TITAN	3880	534100	5.1%	3690	3600	284025	-2.4%
ICICIBANK	1500	2133600	3.7%	1446	1400	1426600	-3.2%	TRENT	6200	259800	-0.3%	6218	6000	264800	-3.5%
INDUSINDBK	900	2541000	3.2%	872	800	1360800	-8.3%	ULTRACEMCO	13600	71400	12.5%	12093	11000	40100	-9.0%
INFY	1700	1562800	6.1%	1602	1600	1296400	-0.1%	WIPRO	300	4092000	12.8%	266	240	2070000	-9.8%

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**

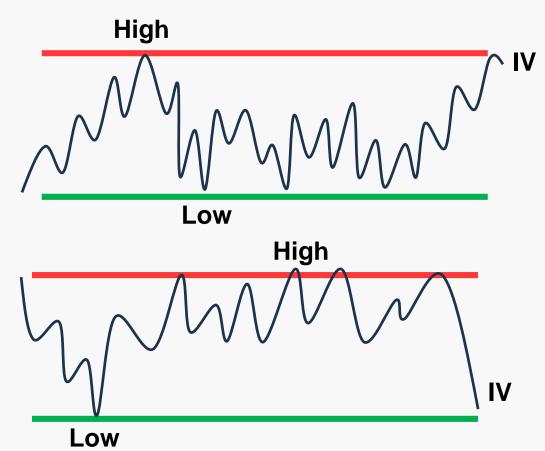
*ATM IV is the midpoint of the IV for the ATM call and put respectively



- 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.

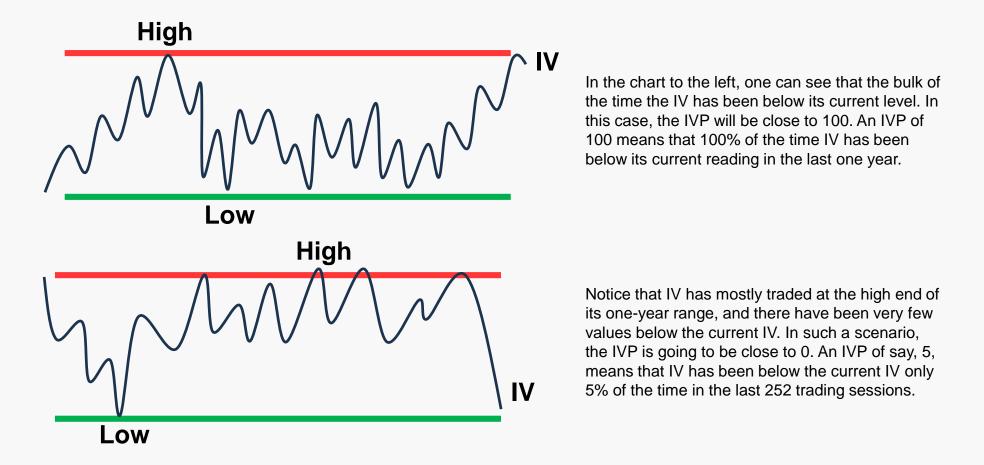
In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

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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