



Daily Derivatives Report

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Nifty Futures			Bank Nifty Futu		Volatility Insights			
	Value	Change]	Value	Change		Value	Change
Most recent settlement	23,615	0.3%▼	Most recent settlement	50,316	0.5%▼	India VIX Index	13.69	0.5▼
Open Interest (OI)	1,78,72,200	0.1%▲	Open interest (OI)	30,67,890	3.1%▲	Nifty ATM IV (%)	12.48	1.9▼
Change in OI (abs)	1,78,72,200	18,600 🔺	Change in OI (abs)	30,67,890	93,090 ▲	Bank Nifty ATM IV (%)	15.81	0.8▼
Premium / Discount (Abs)	55	31 🔻	Premium / Discount (Abs)	158	31▼	PCR (Nifty)	0.83	0.01 ▼
Inference	Short Buil	ld Up	Inference	Short B	uild Up	PCR (Bank Nifty)	0.85	0.08▼

The Long Ratio for the FII Index Futures dropped to 16.0%, against 16.5% recorded in the previous session.

Single Stock Futures Movers

Long Build	Long Buildup (Open Interest Higher + Price Higher)				Short Bui	Idup (Open Interes	st Higher + I	Higher + Price Lower)			
Symbol	Open Interest	Chg (%)	Price	Chg (%)	Symbol	Open Interest	Chg (%)	Price	Chg (%)		
ABBOTINDIA	69,100	11.5%	29874.3	2.2%	NCC	1,28,74,075	48.9%	206.05	-11.6%		
MANAPPURAM	7,95,48,000	10.1%	208.4	1.3%	GUJGASLTD	66,82,500	11.0%	460.7	-2.3%		
CHAMBLFERT	88,50,200	9.6%	557.95	7.8%	NBCC	1,62,22,600	9.9%	92.4	-2.1%		
GLENMARK	36,01,000	6.5%	1546.4	2.8%	ITC	8,96,52,800	8.8%	425.75	-2.8%		
PFC	6,25,87,200	6.1%	410.5	1.4%	BEL	11,27,54,550	7.0%	278.2	-0.9%		

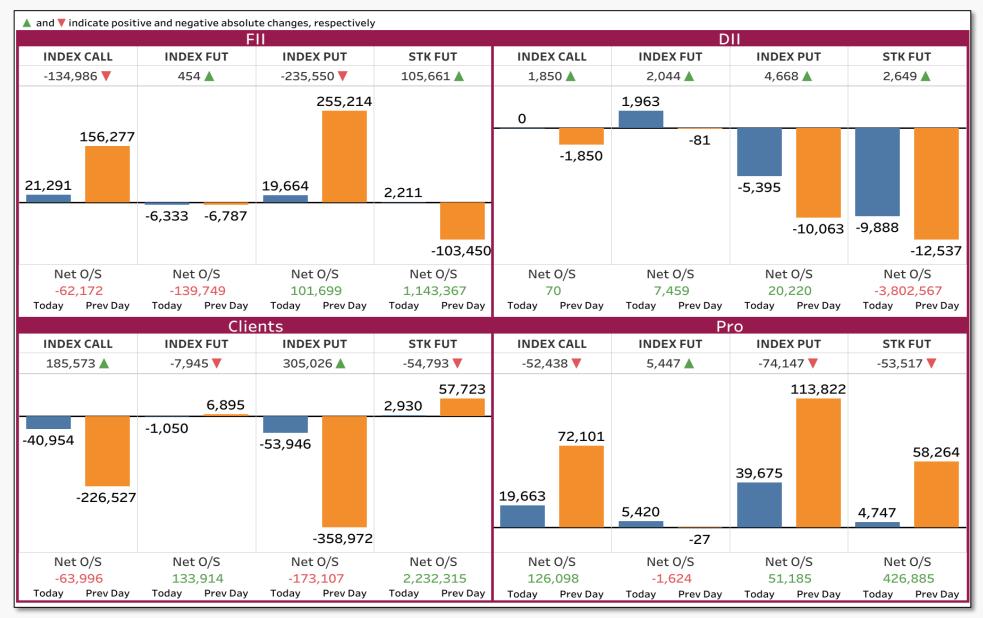
Short Cove	Short Covering (Open Interest Lower + Price Higher)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)				
APOLLOTYRE	1,01,01,400	-4.9%	427	3.3%				
PHOENIXLTD	5,02,250	-4.6%	1646.95	1.5%				
M&M	1,66,37,250	-3.8%	3203.25	1.6%				
ASHOKLEY	5,23,22,500	-3.7%	212.87	1.2%				
CANFINHOME	54,12,225	-3.4%	672.5	0.4%				

Long Unwinding (Open Interest Lower + Price Lower)								
Symbol	Open Interest	Chg (%)	Price	Chg (%)				
BAJFINANCE	89,37,500	-4.1%	8481.9	-0.4%				
METROPOLIS	8,38,800	-2.9%	1847.95	-0.3%				
ALKEM	10,96,000	-2.6%	5125.3	-2.1%				
PIIND	18,70,125	-1.8%	3542.7	-2.7%				
GAIL	11,46,40,050	-1.7%	171.34	-4.3%				

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

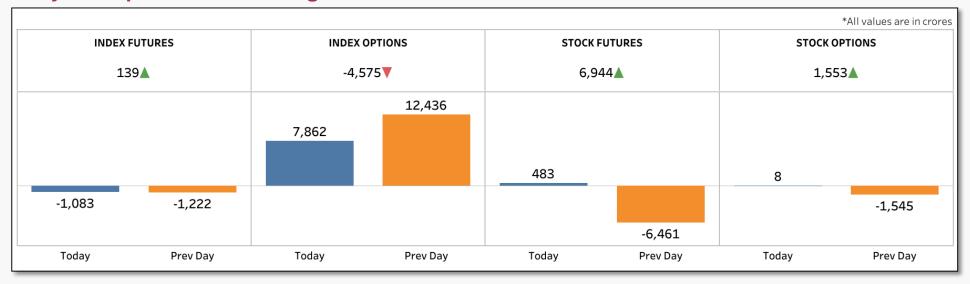


Open Interest Data by Participant

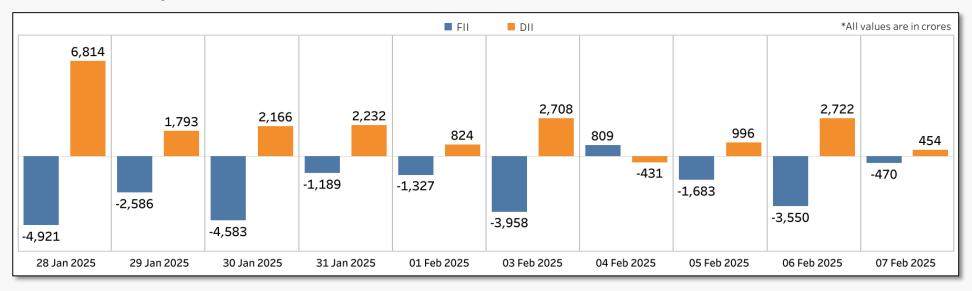




Daily Net Open Interest Change

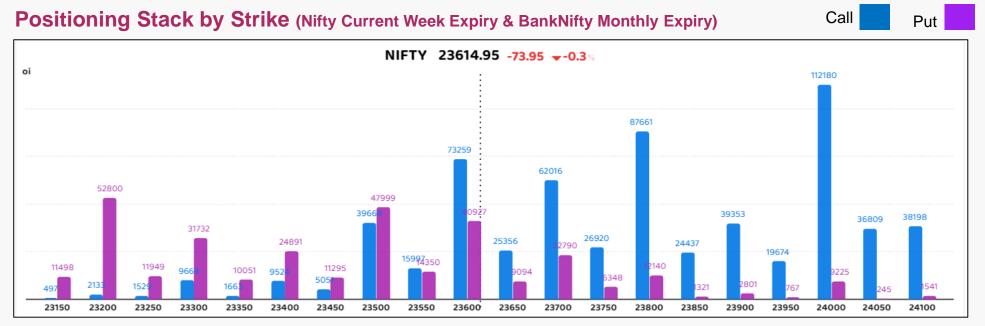


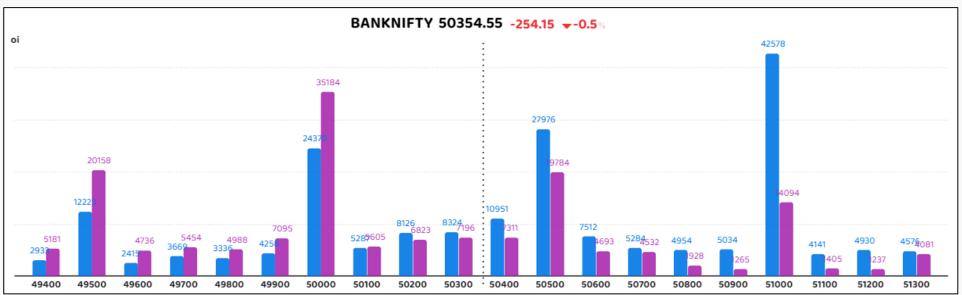
DII and FII Daily Cash Market Flows





Options Strike Concentration

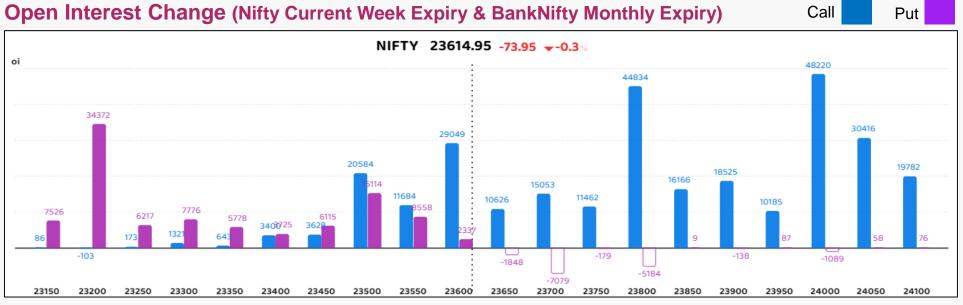




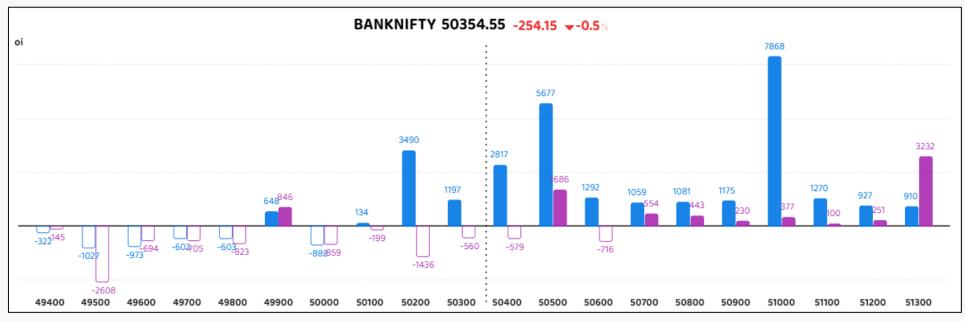
For the Nifty, the 24000 Call and the 23200 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 51000 Call and the 50000 Put saw the most amount of open interest.

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 24000 Call and the 23200 Put



For the Bank Nifty, the biggest open interest changes were seen at the 51000 Call & the 51300 Put



Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
TRENT LTD	5454.4	3.4	40.9	54.5	2.2	74.1
SIEMENS LTD	5505.5	-2.4	40.0	47.6	20.7	71.8
TITAN CO LTD	3424.8	0.4	24.6	33.5	2.3	71.5
TATA MOTORS LTD	706.75	-0.4	30.6	41.8	3.9	70.5
KOTAK MAHINDRA	1929.25	0.7	20.1	28.7	1.9	68.1

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HDFCLIFE IS	635.7	0.6	23.4	80.6	19.6	6.2
ADANI PORTS AND	1146.1	-1.5	28.8	97.8	23.2	7.5
CIPLA IS	1472.25	0.1	22.5	61.3	18.0	10.4
BHARAT ELECTRON	277.05	-1.0	33.4	81.6	25.5	14.0
TECH MAHINDRA LT	1692.1	1.3	23.3	35.8	21.2	14.3



Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
BANDHAN BANK LTD	152.37	0.1	61.0	61.0	15.9	100.0
BHARAT PETROL	264.3	0.7	51.8	69.0	8.7	98.3
IPCA LABS LTD	1507.25	-0.5	41.7	49.3	14.4	97.5
ABB INDIA LTD	5685.75	0.1	42.4	56.4	23.7	96.9
UNITED BREWERIES	2048.65	-1.2	40.1	47.4	13.6	96.5

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ORACLE FINANCIAL	9452.7	1.9	31.8	53.9	28.5	4.2
MARUTI SUZUKI IN	13049.5	-0.2	19.0	33.7	0.4	4.5
SHREE CEMENT	28249.1	1.5	17.2	37.7	11.6	4.8
SBI LIFE INSURAN	1470.95	0.4	20.3	35.8	13.9	6.2
DR REDDY'S LABS	1240.4	0.3	19.2	35.3	14.4	6.6



Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PIDILITE INDS	2870.6	-1.0	2291	646	3.6
HINDALCO INDS	607.4	2.0	21351	8165	2.6
BHARTI AIRTEL	1676.75	3.5	309782	122956	2.5
PUNJAB NATL BANK	99.27	-0.5	15155	6129	2.5
ITC LTD	430.85	-2.3	109709	45444	2.4

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
BAJAJ FINANCE LT	8474.25	-0.4	85519	83223	1
INFOSYS LTD	1903.65	-0.6	29273	27457	0.9
SIEMENS LTD	5505.5	-2.4	21562	18441	0.9
WIPRO LTD	318	0.0	7199	5915	0.8
MARUTI SUZUKI IN	13049.5	-0.2	39947	32667	0.8



Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
TRENT LTD	5454.4	3.4	58361	62378	93.6
KKC IS	2871.9	-3.1	14487	15666	92.5
LARSEN & TOUBRO	3336.9	-0.5	70323	85207	82.5
ACEM IS	512.75	-0.3	18972	23282	81.5

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
LARSEN & TOUBRO	3336.9	-0.5	36410	36410	100
KKC IS	2871.9	-3.1	7939	7939	100
ABBOTT INDIA LTD	29799.6	2.5	3334	3334	100
CHAMBAL FERTILIS	555.75	6.9	4416	4416	100
MARUTI SUZUKI IN	13049.5	-0.2	49340	53706	91.87



Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
BHARTI AIRTEL	1676.75	3.5	309782	309782	100

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
BHARTI AIRTEL	1676.75	3.5	122956	125628	97.9
MAHINDRA & MAHIN	3198.45	1.9	140876	147456	95.5



Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
BHARTI AIRTEL	1676.75	3.5	309782	57107	5.4
ALKEM IS	5151.35	-2.0	25563	4731	5.4
CHMB IS	555.75	6.9	35419	8111	4.4
MGFL IS	208.64	1.2	12326	3657	3.4
MAHINDRA & MAHIN	3198.45	1.9	202072	67000	3.0

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
BHARTI AIRTEL	1676.75	3.5	122956	33198.1	3.7
MAHINDRA & MAHIN	3198.45	1.9	140876	42166.3	3.3
STATE BANK IND	737.2	-2.0	190087	87147.9	2.2
ITC LTD	430.85	-2.3	45444	21379.2	2.1
BRITANNIA INDS	4870.5	-1.7	40302	20633.3	2.0



Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
PAGE INDUSTRIES	42983.05	-2.3	19208	4632	4.1
ITC LTD	430.85	-2.3	59396	28062	2.1
BHARTI AIRTEL	1676.75	3.5	41510	21837	1.9
STATE BANK IND	737.2	-2.0	166737	92258	1.8
ABBOTT INDIA LTD	29799.6	2.5	2999	1711	1.8

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
ITC LTD	430.85	-2.3	23366	13324	1.8
PI IS	3543.85	-2.7	4674	2881	1.6
TRENT LTD	5454.4	3.4	29122	19442	1.5
BHARTI AIRTEL	1676.75	3.5	20262	13581	1.5
STATE BANK IND	737.2	-2.0	83606	56234	1.5



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	2800	1263900	19.7%	2339	2800	2616600	19.7%	INFY	1920	3878800	0.9%	1904	1900	1390400	-0.2%
ADANIPORTS	1200	1614800	4.7%	1146	1200	724400	4.7%	ПС	450	13296000	4.4%	431	400	5470400	-7.2%
APOLLOHOSP	7000	128000	3.1%	6791	6000	116375	-11.6%	JSWSTEEL	1080	1011825	10.1%	981	900	574425	-8.2%
ASIANPAINT	2400	1553000	5.7%	2271	2200	472400	-3.1%	KOTAKBANK	2000	1848400	3.7%	1929	1900	909200	-1.5%
AXISBANK	1050	7955000	2.5%	1024	1000	2968750	-2.4%	LT	3600	1598550	7.9%	3337	3300	735300	-1.1%
BAJAJ-AUTO	10000	183675	11.2%	8989	8500	85275	-5.4%	LTIM	6000	81600	0.7%	5957	5500	61050	-7.7%
BAJAJFINSV	1860	1861500	3.4%	1798	1700	648500	-5.5%	M&M	3300	710325	3.2%	3198	3000	558950	-6.2%
BAJFINANCE	9000	472000	6.2%	8474	8000	550000	-5.6%	MARUTI	13200	598500	1.2%	13050	12000	367850	-8.0%
BHARTIARTL	1700	4213250	1.4%	1677	1600	1497675	-4.6%	NESTLEIND	2400	748200	7.9%	2225	2300	245000	3.4%
BPCL	270	9676800	2.2%	264	250	1720800	-5.4%	NTPC	340	10624500	7.3%	317	390	3772500	23.0%
BRITANNIA	5000	383800	2.7%	4871	4500	106900	-7.6%	ONGC	270	11484550	8.5%	249	240	2875950	-3.6%
CIPLA	1500	1605175	1.9%	1472	1260	318175	-14.4%	POWERGRID	300	7264800	7.9%	278	280	2001600	0.7%
COALINDIA	400	5218500	5.8%	378	450	3094350	19.0%	RELIANCE	1300	11546500	2.6%	1267	1200	3559500	-5.3%
DIVISLAB	6200	188000	1.0%	6141	5400	143500	-12.1%	SBILIFE	1600	801375	8.8%	1471	1460	309750	-0.7%
DRREDDY	1240	1260000	0.0%	1240	1200	382500	-3.3%	SBIN	800	22914000	8.5%	737	700	7093500	-5.0%
EICHERMOT	5500	235200	2.4%	5373	4500	123550	-16.2%	SUNPHARMA	1800	1804600	2.9%	1750	1700	535850	-2.8%
GRASIM	2500	291750	0.5%	2488	2500	215750	0.5%	TATACONSUM	1100	501600	7.7%	1021	900	684456	-11.9%
HCLTECH	1760	1095500	2.0%	1726	1540	546000	-10.8%	TATAMOTORS	800	10203600	13.2%	707	700	3523850	-1.0%
HDFCBANK	1760	9800450	1.6%	1733	1700	2681250	-1.9%	TATASTEEL	140	21626000	1.2%	138	120	12622500	-13.2%
HDFCLIFE	700	2695000	10.1%	636	540	856900	-15.1%	TCS	4200	982450	4.2%	4029	4000	516950	-0.7%
HEROMOTOCO	4500	562050	5.3%	4275	4200	307050	-1.7%	TECHM	1860	586200	9.9%	1692	1500	478800	-11.4%
HINDALCO	610	2693600	0.4%	607	600	2035600	-1.2%	TITAN	3600	997500	5.1%	3425	3200	577150	-6.6%
HINDUNILVR	2600	1558500	10.0%	2364	2400	423000	1.5%	ULTRACEMCO	12000	201600	3.1%	11641	11000	109450	-5.5%
ICICIBANK	1300	6145300	3.4%	1257	1200	2070600	-4.5%	UPL	580	1168010	-9.6%	641	600	1686975	-6.4%
INDUSINDBK	1100	4713500	1.9%	1079	1100	1260000	1.9%	WIPRO	359	3150000	12.9%	318	300	3690000	-5.7%

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**

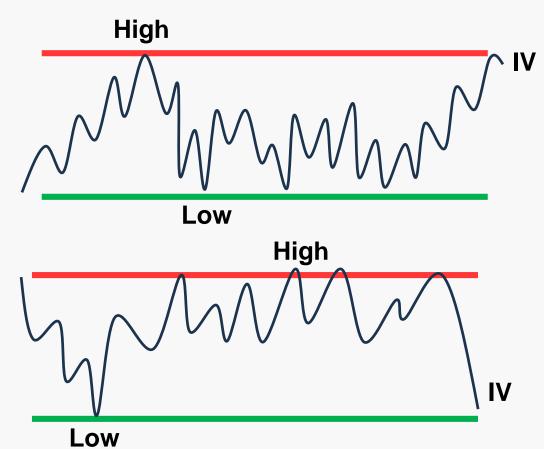
*ATM IV is the midpoint of the IV for the ATM call and put respectively



- 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.

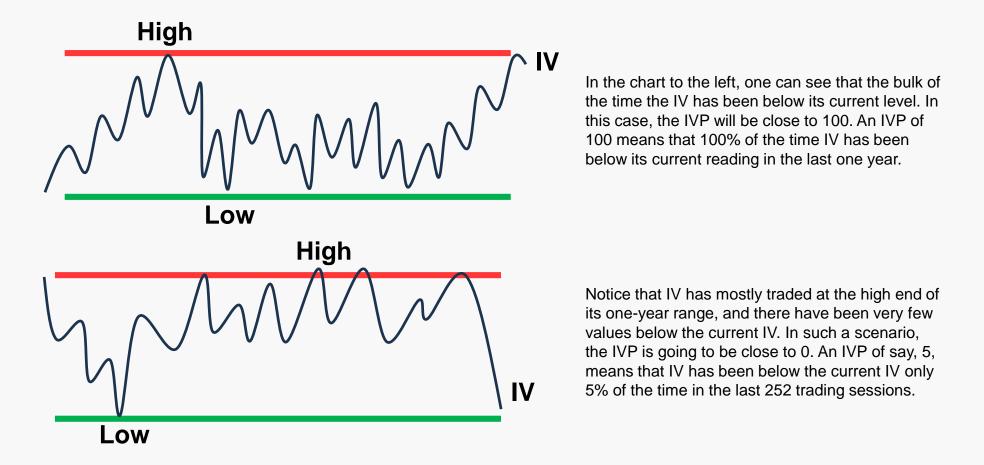
In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

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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