

Daily Derivatives Report



Nifty Futures

	Value	Change	
Most recent settlement	23,148	0.7%▲	
Open Interest (OI)	2,09,86,050	1.1%▲	
Change in OI (abs)	2,09,86,050	2,26,550▲	
Premium / Discount (Abs)	-15	35▼	
Inference	Long Build Up		

Bank Nifty Futures

	Value	Change	
Most recent settlement	49,082	0.5% ▲	
Open interest (OI)	36,03,435	2.4%▼	
Change in OI (abs)	36,03,435	87,480▼	
Premium / Discount (Abs)	-84	46▼	
Inference	Short Covering		

Volatility Insights

	Value	Change
India VIX Index	18.64	0.4▲
Nifty ATM IV (%)	30.86	10.5 ▲
Bank Nifty ATM IV (%)	31.70	8.2▲
PCR (Nifty)	1.06	0.11 ▲
PCR (Bank Nifty)	0.79	0.04 ▲

The FII Index Futures Long Ratio closed at 24.8%, remaining nearly unchanged from the previous session's 24.9%.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
NYKAA	5,15,12,900	18.2%	171.24	1.9%			
INDIANB	50,95,800	12.3%	545.55	6.8%			
IEX	4,03,38,750	10.1%	178.95	6.8%			
MAXHEALTH	73,81,500	9.6%	1024.8	0.5%			
LUPIN	85,66,300	8.7%	2067.85	2.2%			

Short Buildup (Open Interest Higher + Price Lower)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
JSWENERGY	1,61,60,250	26.3%	473.25	-6.3%			
BOSCHLTD	3,75,800	12.3%	28158.75	-5.8%			
MARUTI	36,32,900	9.0%	11918.3	-1.2%			
MGL	65,94,400	6.9%	1270.25	-0.9%			
M&MFIN	3,59,08,000	6.5%	270.4	-0.6%			

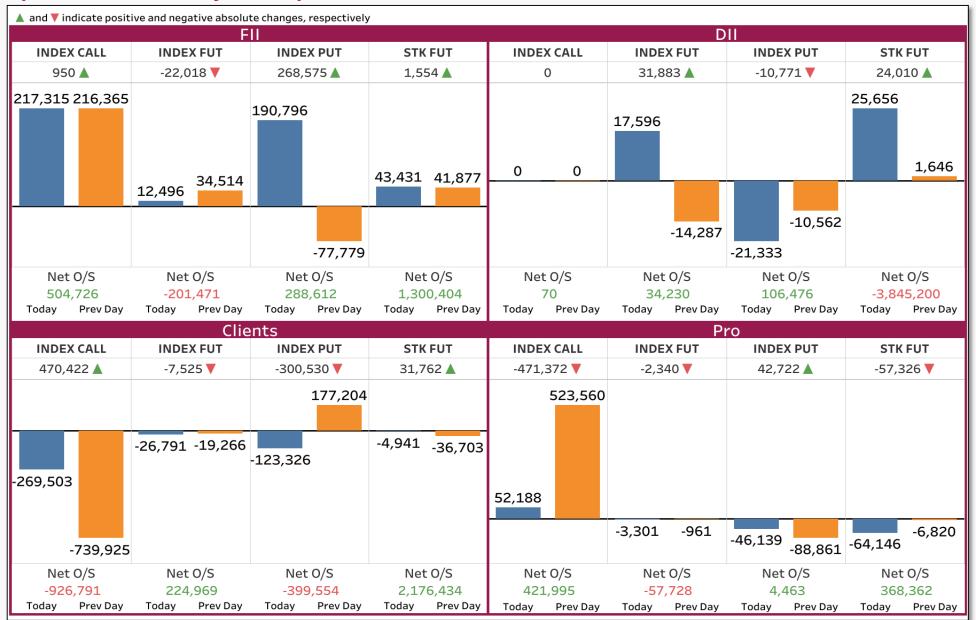
Short Covering (Open Interest Lower + Price Higher)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
COLPAL	43,93,900	-16.9%	2724.55	2.1%			
LAURUSLABS	2,16,51,200	-12.4%	544.15	6.3%			
IGL	1,68,78,125	-12.0%	391.2	1.9%			
DRREDDY	1,28,16,875	-11.6%	1182.95	0.8%			
GNFC	53,52,100	-9.0%	549.45	4.4%			

Long Unwinding (Open Interest Lower + Price Lower)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
INDIAMART	13,47,900	-20.8%	2081.6	-0.5%			
ABBOTINDIA	65,960	-5.1%	25556.1	-0.5%			
APOLLOTYRE	1,39,75,700	-3.0%	424.25	-0.1%			
BERGEPAINT	1,15,15,680	-3.0%	458.85	-3.3%			
HINDPETRO	4,48,23,375	-1.5%	345.5	-1.0%			

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

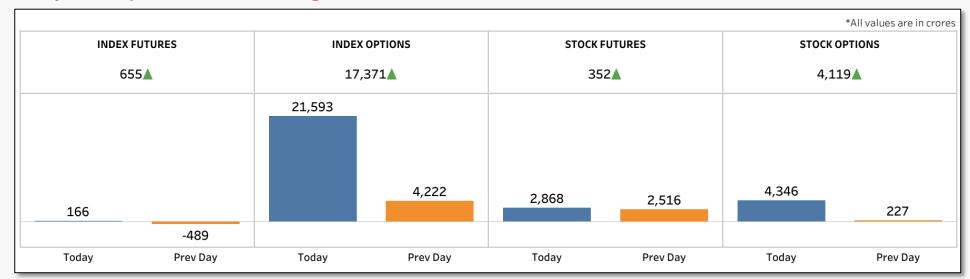


Open Interest Data by Participant

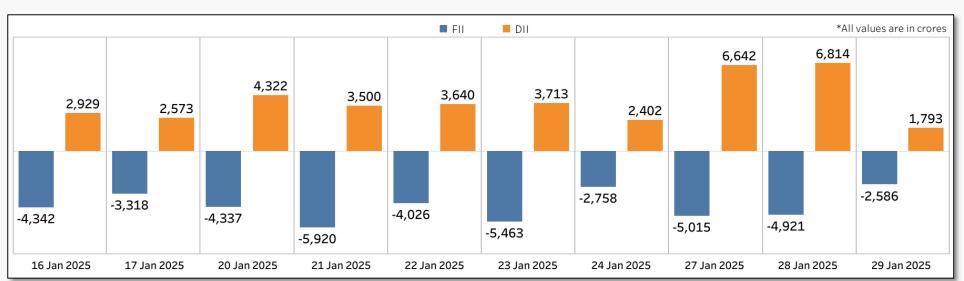




Daily Net Open Interest Change



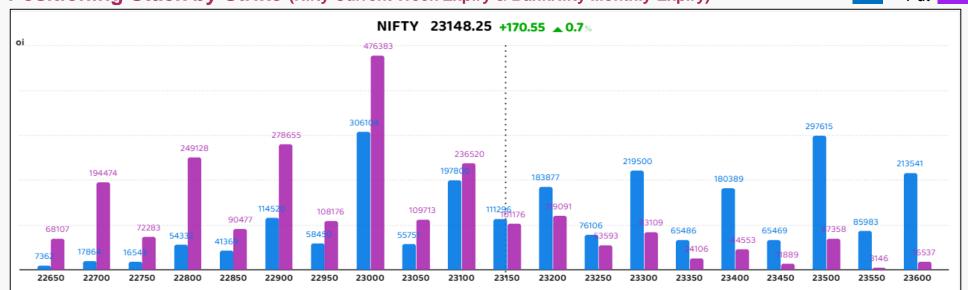
DII and FII Daily Cash Market Flows



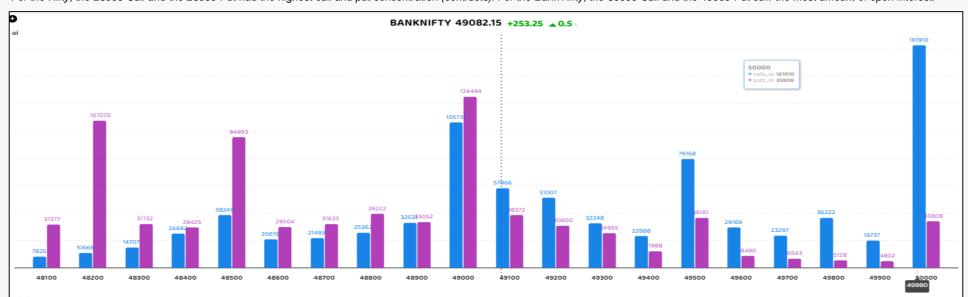


Positioning Stack by Strike (Nifty Current Week Expiry & BankNifty Monthly Expiry)





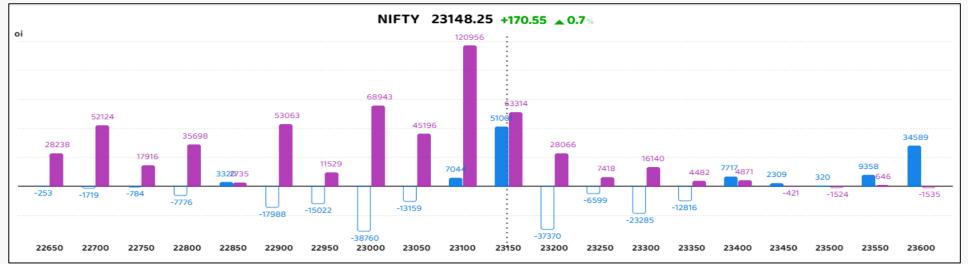
For the Nifty, the 23000 Call and the 23000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 50000 Call and the 49000 Put saw the most amount of open interest.



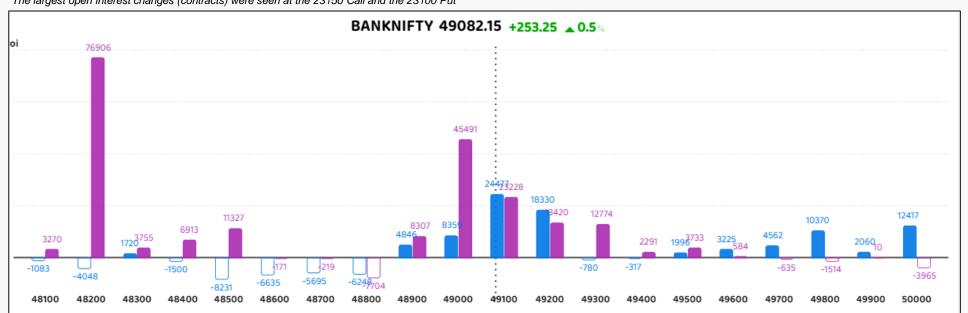


Open Interest Change (Nifty Current Week Expiry & BankNifty Monthly Expiry)





The largest open interest changes (contracts) were seen at the 23150 Call and the 23100 Put





Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
CHOLAMANDALAM IN	1296.55	4.4	45.3	45.3	24.3	100.0
TATA CONSUMER PR	960.5	-0.1	34.0	34.0	13.6	100.0
PVR INOX LTD	1083.9	2.8	45.3	45.3	14.8	100.0
BIOCON LTD	355.7	-1.2	55.0	55.5	9.6	98.9
DIXON TECHNOLOGI	14536.15	-0.3	50.0	51.5	1.8	96.9

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
MCX INDIA LTD	5701.9	3.1	35.4	71.9	29.9	13.0
HDFC LIFE INSURA	628.35	2.7	28.7	80.6	19.6	14.9
FED BANK LTD	186.18	1.1	31.1	130.9	7.0	19.5
SHREE CEMENT	26651.35	2.4	17.7	37.7	11.6	23.1
CIPLA LTD	1423.95	0.2	28.3	61.3	18.0	23.8



Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
CHOLAMANDALAM IN	1296.55	4.4	45.3	45.3	24.3	100.0
TATA CONSUMER PR	960.5	-0.1	34.0	34.0	13.6	100.0
PVR INOX LTD	1083.9	2.8	45.3	45.3	14.8	100.0
BIOCON LTD	355.7	-1.2	55.0	55.5	9.6	99.9
SRF LTD	2664.85	2.5	40.1	40.8	21.4	99.9

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
SHREE CEMENT	26651.35	2.4	17.7	37.7	11.6	5.4
MRF LTD	112335	-0.5	18.9	36.7	8.9	13.9
MCX INDIA LTD	5701.9	3.1	35.4	71.9	29.9	18.4
INDIAMART INTERM	2076.7	-0.5	30.4	56.4	16.6	24.2
BALKRISHNA INDS	2737.1	1.1	28.0	58.3	17.8	39.1



Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PAGE INDUSTRIES	45190.35	1.1	5414	1469	3.7
HERO MOTOCORP LT	4072.45	1.1	47223	14188	3.3
CHAMBAL FERTILIS	490.85	5.0	8334	2695	3.1
CUMMINS INDIA	2848.9	4.0	19807	7248	2.7
PVR INOX LTD	1083.9	2.8	11734	4577	2.6

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
BERGER PAINTS	458.8	-3.0	4089	6010	1.5
CAN FIN HOMES	667.45	0.7	3066	4282	1.4
LIC HOUSING FIN	574.6	0.7	14711	16638	1.1
SBI CARDS & PAYM	761.4	0.3	43911	47775	1.1
RAMCO CEMENT/THE	926.2	2.1	4431	4577	1.0



Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
BOSCH LTD	28155.7	-5.5	9551	9551	100.0
COFORGE LTD	8727.6	2.9	32824	33877	96.9
HINDUSTAN AERONA	3700.5	2.8	59928	68088	88.0
INDUS TOWERS LTD	346.7	-1.9	19681	23094	85.2
AMBUJA CEMENTS	522.1	-3.9	19708	23282	84.7

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
TRENT LTD	5597.2	2.6	23457	23457	100.0
MANAPPURAM FINAN	199.4	4.4	6067	6067	100.0
BANK OF BARODA	222.6	0.4	20306	20549	98.8
INDUS TOWERS LTD	346.7	-1.9	14873	15214	97.8
STEEL AUTHORITY	104.4	1.5	11167	11723	95.3



Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
AMBUJA CEMENTS	522.1	-3.9	103354	114446	90.3

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
COLGATE PALMOLIV	2731.9	2.0	31045	31045	100.0
AMBUJA CEMENTS	522.1	-3.9	69742	76988	90.6
SBI CARDS & PAYM	761.4	0.3	47775	58632	81.5
TVS MOTOR CO LTD	2464.8	5.5	49197	62403	78.8
MARUTI SUZUKI IN	11977.9	-1.2	288858	467636	61.8



Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
MANAPPURAM FINAN	199.4	4.4	18496	1722	10.7
BOSCH LTD	28155.7	-5.5	31777	3580	8.9
AMBUJA CEMENTS	522.1	-3.9	103354	17014	6.1
BAJAJ AUTO LTD	8625.9	2.7	303214	53173	5.7
TVS MOTOR CO LTD	2464.8	5.5	82243	15850	5.2

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
MANAPPURAM FINAN	199.4	4.4	13648	1328	10.3
BOSCH LTD	28155.7	-5.5	19344	1926	10.0
AMBUJA CEMENTS	522.1	-3.9	69742	10582	6.6
BAJAJ AUTO LTD	8625.9	2.7	135055	26330	5.1
TVS MOTOR CO LTD	2464.8	5.5	49197	10096	4.9



Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
BOSCH LTD	28155.7	-5.5	9551	3916	2.4
AMBUJA CEMENTS	522.1	-3.9	19708	10438	1.9
POLYCAB INDIA LT	5830.3	2.7	25715	13955	1.8
CIPLA LTD	1424.0	0.2	22333	13146	1.7
COFORGE LTD	8746.6	2.9	32824	20489	1.6

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
POLYCAB INDIA LT	5830.3	2.7	15294	8635	1.8
BOSCH LTD	28155.7	-5.5	5624	3193	1.8
MPHASIS LTD	3009.3	4.4	6733	3901	1.7
PERSISTENT SYS	6276.0	6.2	14270	8687	1.6
BALKRISHNA INDS	2737.1	1.1	2385	1470	1.6



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	2500	884100	7.8%	2319	2800	604500	20.8%	INFY	2000	5827200	6.3%	1881	1840	844400	-2.2%
ADANIPORTS	1260	1144000	14.9%	1097	1200	558400	9.4%	ITC	460	5604800	6.1%	433	445	1972800	2.7%
APOLLOHOSP	7200	107000	6.1%	6784	7200	47625	6.1%	JSWSTEEL	950	480600	1.3%	938	900	756000	-4.0%
ASIANPAINT	2400	610400	8.0%	2223	2000	303600	-10.0%	KOTAKBANK	2000	2030800	4.1%	1920	1800	941600	-6.3%
AXISBANK	1100	2514375	11.9%	983	960	982500	-2.4%	LT	3700	628650	7.3%	3450	3400	298800	-1.4%
BAJAJ-AUTO	9000	164250	4.3%	8626	7600	108750	-11.9%	LTIM	6500	133950	10.5%	5883	5800	111450	-1.4%
BAJAJFINSV	1700	1443500	-5.0%	1790	1700	1028000	-5.0%	M&M	3150	440300	7.7%	2924	2800	449575	-4.3%
BAJFINANCE	8000	385250	3.1%	7760	7200	382875	-7.2%	MARUTI	12000	727750	0.2%	11978	12000	183850	0.2%
BHARTIARTL	1640	3187250	2.5%	1600	1600	743850	0.0%	NESTLEIND	2180	302000	0.0%	2181	1940	247600	-11.0%
BPCL	280	6739200	8.9%	257	270	1825200	5.1%	NTPC	340	12796500	5.8%	321	315	1713000	-1.9%
BRITANNIA	4850	240300	-3.7%	5037	4700	505300	-6.7%	ONGC	264	15634850	5.0%	251	250	2348500	-0.6%
CIPLA	1460	739050	2.5%	1424	1300	242775	-8.7%	POWERGRID	320	4244400	11.2%	288	290	1002600	0.7%
COALINDIA	390	3902850	2.8%	379	360	1061550	-5.1%	RELIANCE	1300	7071000	5.2%	1236	1200	2750500	-2.9%
DIVISLAB	5900	80800	5.0%	5620	5400	80600	-3.9%	SBILIFE	1600	705000	9.5%	1461	1440	246375	-1.4%
DRREDDY	1400	1701875	18.5%	1181	1200	483750	1.6%	SBIN	800	5981250	5.5%	758	700	4159500	-7.7%
EICHERMOT	5000	293125	-3.5%	5183	5000	173075	-3.5%	SUNPHARMA	1920	1315300	10.6%	1735	1780	257600	2.6%
GRASIM	2500	250750	1.9%	2454	2400	134000	-2.2%	TATACONSUM	1000	648888	4.1%	961	900	352944	-6.3%
HCLTECH	2000	1859900	16.3%	1719	1600	658700	-6.9%	TATAMOTORS	800	5589100	6.3%	753	750	2394700	-0.3%
HDFCBANK	1800	3718550	7.3%	1677	1560	2157100	-7.0%	TATASTEEL	140	19162000	7.0%	131	125	7540500	-4.4%
HDFCLIFE	640	1963500	1.9%	628	610	843700	-2.9%	TCS	4200	824075	2.4%	4100	4000	318850	-2.4%
HEROMOTOCO	4300	374850	5.6%	4072	4100	128400	0.7%	TECHM	1760	1647600	4.7%	1681	1580	326400	-6.0%
HINDALCO	600	2741200	2.7%	584	580	1047200	-0.7%	TITAN	3500	421750	3.8%	3371	3100	194250	-8.0%
HINDUNILVR	2400	1562100	0.7%	2384	2300	440700	-3.5%	ULTRACEMCO	12000	124750	3.9%	11545	11000	74100	-4.7%
ICICIBANK	1300	3343200	3.9%	1252	1200	1421000	-4.1%	UPL	560	2154450	1.2%	553	520	673435	-6.0%
INDUSINDBK	1000	4527500	5.5%	948	960	592000	1.2%	WIPRO	316.5	3270000	1.3%	312	299	3396000	-4.3%



- 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

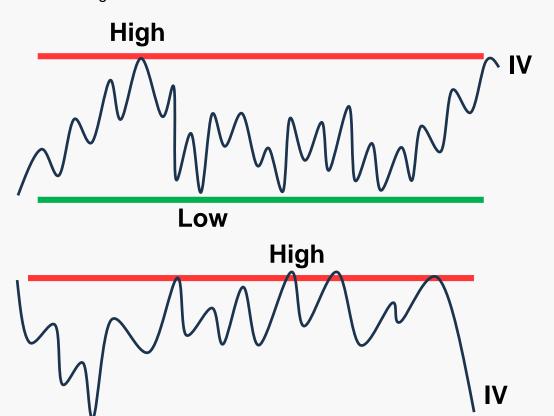


- Volume: Number of contracts traded for the day. If A bought 10 calls & B sold 10 calls, the volume for the day is 10 contracts
- Open Interest: The number of derivatives contracts that are open (have not been closed out). If A bought 10 calls, B bought another 10 calls and C sold 20 calls, then the 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



Low

- 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

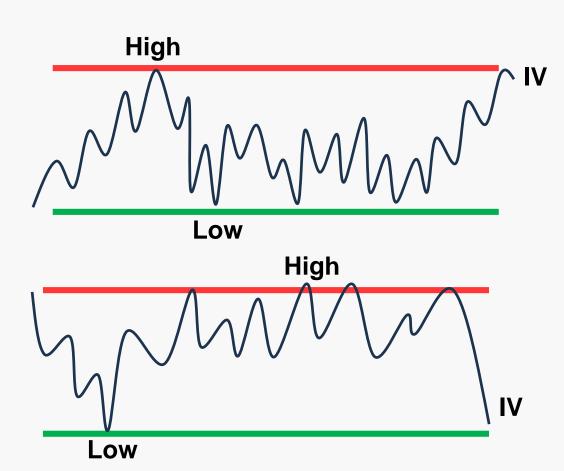


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

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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