

Daily Derivatives Report



Nifty Futures

	Value	Change
Most recent settlement	22,650	0.1%▲
Open Interest (OI)	2,01,33,900	0.1%▲
Change in OI (abs)	2,01,33,900	15,150▲
Premium / Discount (Abs)	97	21▲
Inference	Long Build Up	

Bank Nifty Futures

	Value	Change	
Most recent settlement	48,680	0.2%▼	
Open interest (OI)	39,30,030	0.2%▲	
Change in OI (abs)	39,30,030	9,360▲	
Premium / Discount (Abs)	183	30▲	
Inference	Short Build Up		

Volatility Insights

`	Value	Change
India VIX Index	13.47	0.3▼
Nifty ATM IV (%)	12.59	0.1▼
Bank Nifty ATM IV (%)	14.61	0.4▼
PCR (Nifty)	1.08	0.06▼
PCR (Bank Nifty)	0.99	0.03▼

The Long Ratio for the FII Index Futures flat to 18.5%, against 18.5% recorded in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
IREDA	2,35,53,800	14.2%	146.09	0.4%			
APOLLOTYRE	1,09,44,600	8.0%	413.45	2.7%			
NBCC	2,86,57,800	8.0%	81.2	1.0%			
ATGL	52,72,325	5.0%	600.85	2.1%			
POONAWALLA	1,53,26,500	4.8%	283.55	0.5%			

Short Buildup (Open Interest Higher + Price Lower)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
OFSS	7,75,100	14.6%	7579.5	-3.4%			
BSE	52,25,750	12.4%	4181.9	-1.3%			
INDUSINDBK	4,97,20,500	12.1%	940.2	-3.5%			
HINDCOPPER	4,45,78,300	11.2%	224.19	-0.1%			
CDSL	1,15,20,950	8.2%	1147.05	-1.9%			

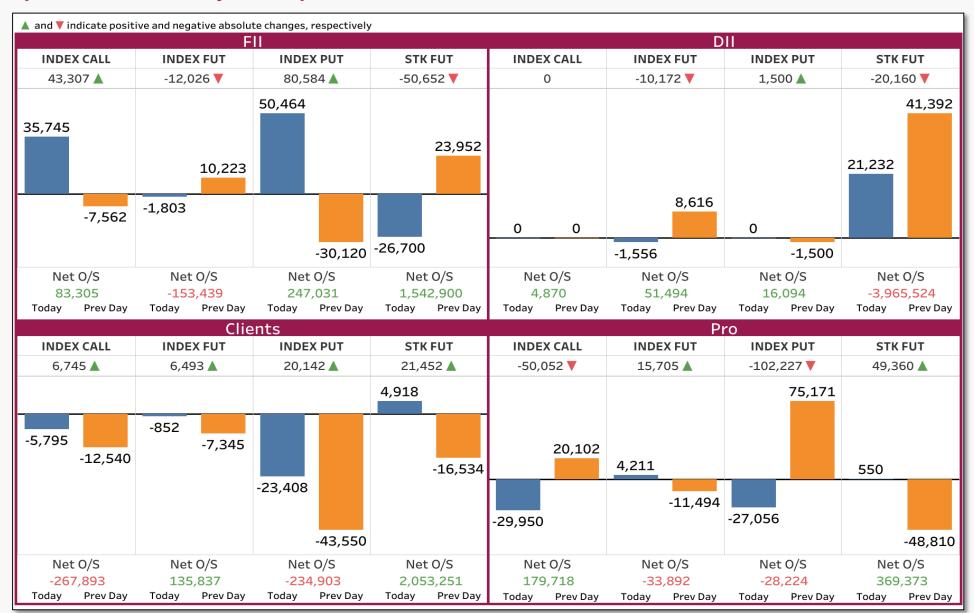
Short Covering (Open Interest Lower + Price Higher)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
CAMS	11,28,500	-4.9%	3359.8	1.8%			
NATIONALUM	4,08,90,000	-3.8%	194.96	1.2%			
IEX	4,13,77,500	-3.8%	164.15	0.1%			
MUTHOOTFIN	33,59,675	-3.2%	2182.45	0.0%			
RELIANCE	14,47,60,000	-3.2%	1251.45	3.1%			

Long Unwinding (Open Interest Lower + Price Lower)							
Symbol Open Interest Chg (%) Price Chg							
PIIND	16,34,000	-6.5%	3232.3	-1.1%			
MCX	19,53,400	-3.2%	4674.65	-0.1%			
IOC	9,73,92,750	-2.7%	124.83	-0.8%			
ADANIGREEN	1,52,20,125	-2.4%	841.9	-0.9%			
LODHA	50,54,850	-2.3%	1116.05	-2.2%			

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

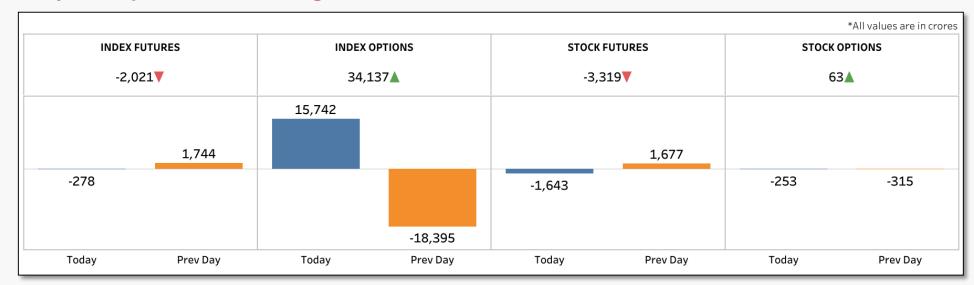


Open Interest Data by Participant

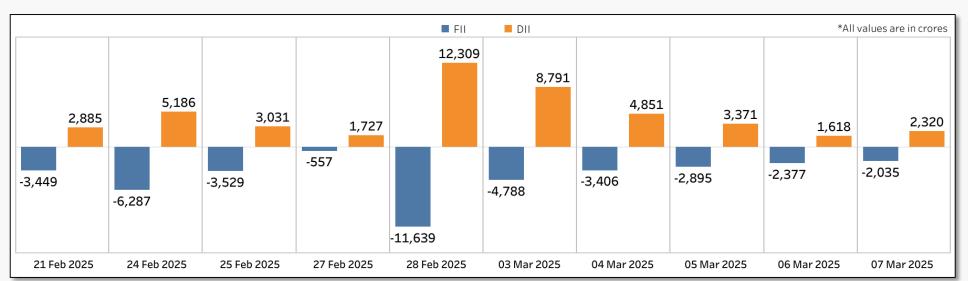




Daily Net Open Interest Change



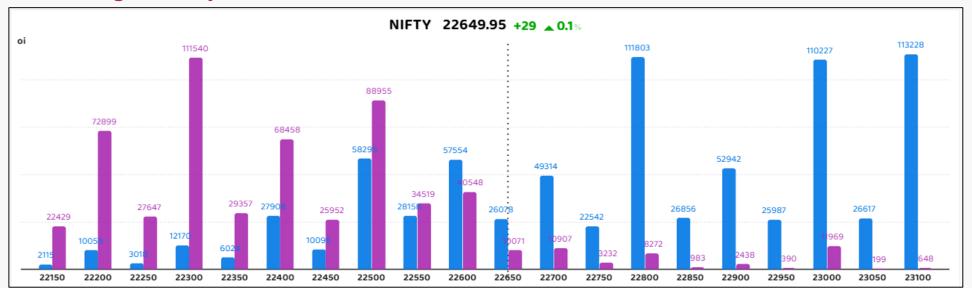
DII and FII Daily Cash Market Flows



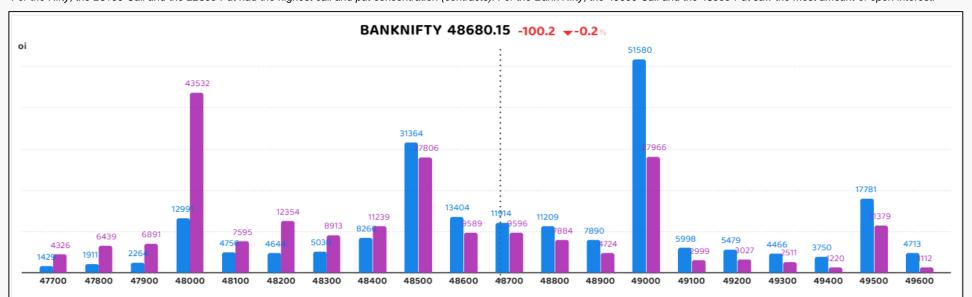


Positioning Stack by Strike (Nifty Current Week Expiry & BankNifty Monthly Expiry)





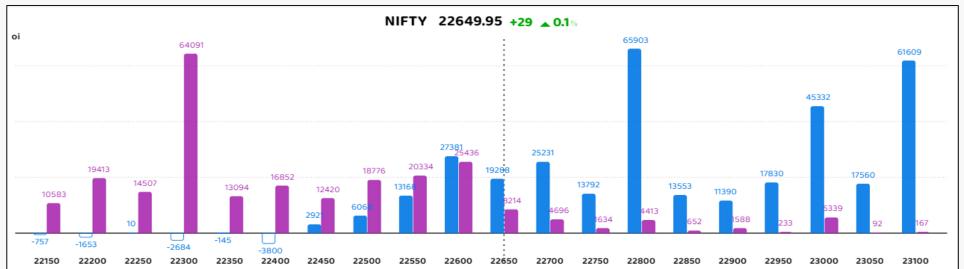
For the Nifty, the 23100 Call and the 22300 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 49000 Call and the 48000 Put saw the most amount of open interest.



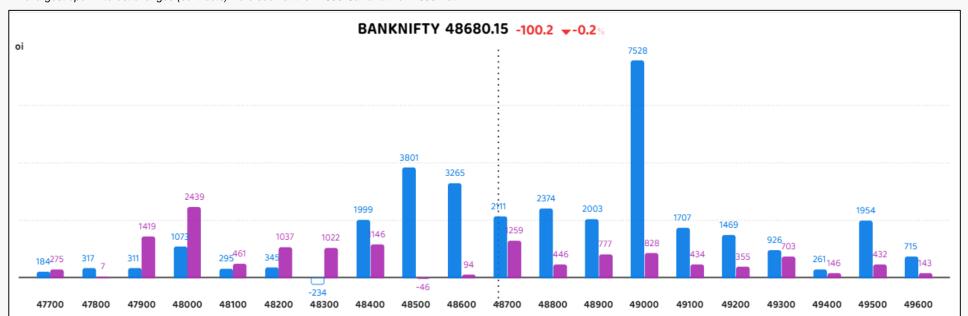








The largest open interest changes (contracts) were seen at the 22800 Call and the 22300 Put





Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
DIXON TECHNOLOGI	13911.25	-2.4	44.6	51.5	1.8	86.1
LAURUS LABS LTD	570.85	-1.7	40.7	44.8	16.1	85.6
CESC LTD	140.94	0.8	44.0	46.3	31.2	84.7
DELHIVERY LTD	255.45	-2.1	43.5	46.1	29.4	84.5
ANGEL ONE LTD	2098	-1.0	54.2	60.0	22.1	84.5

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
IIFL FINANCE LTD	322.1	-1.2	47.2	62.1	47.2	0.0
TATA TECHNOLOGIE	671.55	0.1	34.4	47.2	34.4	0.0
INDIAN RENEWABLE	149.59	-0.2	57.0	63.1	57.0	0.0
PATANJALI FOODS	1749.65	-1.1	34.3	65.0	34.2	0.4
NBCC INDIA LTD	80.76	0.8	46.4	65.4	45.7	3.5



Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
DELHIVERY LTD	255.45	-2.1	43.5	46.1	29.4	95.7
PAGE INDUSTRIES	40067.15	-1.3	31.9	41.8	13.0	95.4
KEI INDUS LTD	3223.85	-1.9	53.4	71.6	17.6	95.0
LAURUS LABS LTD	570.85	-1.7	40.7	44.8	16.1	93.5
INDUSIND BANK	936.75	-3.6	35.5	60.4	12.4	93.3

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
IIFL FINANCE LTD	322.1	-1.2	47.2	62.1	47.2	0.0
TATA TECHNOLOGIE	671.55	0.1	34.4	47.2	34.4	0.0
INDIAN RENEWABLE	149.59	-0.2	57.0	63.1	57.0	0.0
NESTLE INDIA LTD	2238.45	1.7	15.0	29.0	14.2	1.5
ALKEM LABORATORI	4738.05	-0.2	18.4	48.8	15.4	2.2



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	16.88	-0.6	3720	600	6.2
BOSCH LTD	27033.4	-0.1	3757	765	4.9
TORRENT POWER LT	1332	0.4	2733	587	4.7
DEEPAK NITRITE	1989	1.6	9828	2282	4.3
SRF LTD	2935.35	2.9	44235	10329	4.3

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
L&T TECHNOLOGY S	4858.2	-0.7	1473	10377	7.0
LAURUS LABS LTD	580.55	-1.7	4024	7208	1.8
AARTI INDUS LTD	410.9	-1.1	2643	4274	1.6
GLENMARK PHARMA	1396.7	0.6	2983	3578	1.2
GRANULES INDIA	494	-0.2	2596	2983	1.1



Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
IIFL FINANCE LTD	325.85	-1.2	1970	1970	100.0
TITAGARH RAIL SY	720.55	5.3	2855	2855	100.0
TATA TECHNOLOGIE	670.6	0.1	2496	2496	100.0
BSE LTD	4253.45	-1.8	76798	76798	100.0
PATANJALI FOODS	1769.85	-1.1	4911	4911	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
JINDAL STAINLESS	654.6	0.4	1614	1614	100.0
IIFL FINANCE LTD	322.1	-1.2	1981	1981	100.0
TITAGARH RAIL SY	759	5.3	1662	1662	100.0
TATA TECHNOLOGIE	671.55	0.1	1617	1617	100.0
INDIAN RENEWABLE	149.59	-0.2	1993	1993	100.0



Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
TITAGARH RAIL SY	759	5.3	24052	24052	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff	
TITAGARH RAIL SY	759	5.3	7284	7284	100.0	



Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
TITAGARH RAIL SY	759	5.3	2855	1209	2.4
BSE LTD	4178.3	-1.8	76798	37476	2.0
KEI INDUS LTD	3223.85	-1.9	10027	5704	1.8
IIFL FINANCE LTD	322.1	-1.2	1970	1172	1.7
INDUSIND BANK	936.75	-3.6	52352	32239	1.6

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
TITAGARH RAIL SY	759	5.3	1662	730	2.3
KEI INDUS LTD	3223.85	-1.9	6069	2921	2.1
HINDUSTAN COPPER	223.85	0.2	4107	2339	1.8
IIFL FINANCE LTD	322.1	-1.2	1981	1171	1.7
COFORGE LTD	7707.25	1.1	16915	10937	1.5



Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
PI INDUSTRIES	3219.1	-1.1	58147	12297	4.7
HINDUSTAN COPPER	223.85	0.2	19195	4870	3.9
SRF LTD	2935.35	2.9	44235	14082	3.1
INDUSIND BANK	936.75	-3.6	108714	38380	2.8
BAJAJ AUTO LTD	7574.75	1.5	88343	32131	2.7

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
PI INDUSTRIES	3219.1	-1.1	39517	8859	4.5
HINDUSTAN COPPER	223.85	0.2	7311	2206	3.3
RELIANCE INDS	1249.8	3.3	226262	88497	2.6
INDUSIND BANK	936.75	-3.6	71872	28765	2.5
ORACLE FINANCIAL	7569.1	-3.3	17726	7460	2.4



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	2600	1202700	15.7%	2248	2600	2710500	15.7%	INFY	1900	1653600	12.7%	1686	1600	1037200	-5.1%
ADANIPORTS	1200	1064800	4.8%	1145	1100	857200	-3.9%	ITC	420	6841600	4.0%	404	400	3292800	-1.0%
APOLLOHOSP	6800	119250	9.4%	6216	6000	65750	-3.5%	JSWSTEEL	1000	952425	-1.1%	1011	1000	724275	-1.1%
ASIANPAINT	2400	699200	5.7%	2270	2200	305200	-3.1%	KOTAKBANK	2000	1205200	3.3%	1935	1900	730800	-1.8%
AXISBANK	1050	1951250	1.2%	1038	1000	1811250	-3.6%	LT	3300	700800	1.7%	3245	3200	555750	-1.4%
BAJAJ-AUTO	8000	274350	5.6%	7575	7000	132375	-7.6%	LTIM	5500	141900	16.5%	4722	4500	114450	-4.7%
BAJAJFINSV	1900	1059500	3.0%	1845	1560	505500	-15.5%	M&M	3000	1235150	10.0%	2728	2500	715225	-8.4%
BAJFINANCE	9000	540125	7.1%	8405	8000	281250	-4.8%	MARUTI	13000	230000	11.5%	11664	11500	121600	-1.4%
BHARTIARTL	1700	1208400	4.2%	1631	1600	1394125	-1.9%	NESTLEIND	2260	190000	1.0%	2238	1960	154400	-12.4%
BPCL	270	2302200	3.3%	261	250	1614600	-4.3%	NTPC	380	2734500	15.3%	330	380	2649000	15.3%
BRITANNIA	5000	71200	5.3%	4748	4100	90500	-13.7%	ONGC	250	3187800	7.3%	233	230	2263800	-1.2%
CIPLA	1600	601250	9.7%	1458	1240	588250	-15.0%	POWERGRID	270	2413800	2.5%	263	250	1562400	-5.1%
COALINDIA	400	2676450	5.1%	381	450	2727900	18.2%	RELIANCE	1300	8455500	4.0%	1250	1200	5157500	-4.0%
DIVISLAB	6000	154300	7.6%	5579	4700	95700	-15.8%	SBILIFE	1500	474750	6.3%	1412	1400	266250	-0.8%
DRREDDY	1200	1614375	5.9%	1133	960	340625	-15.3%	SBIN	800	7323000	9.2%	733	700	5553750	-4.5%
EICHERMOT	5100	226100	0.0%	5101	4800	266525	-5.9%	SUNPHARMA	1600	930300	-0.6%	1609	1400	505750	-13.0%
GRASIM	2420	273000	0.5%	2407	2300	181500	-4.5%	TATACONSUM	1100	452808	14.3%	962	900	322392	-6.4%
HCLTECH	1600	581350	2.7%	1558	1360	723100	-12.7%	TATAMOTORS	700	7173650	8.0%	648	600	2626250	-7.5%
HDFCBANK	1700	4478650	0.6%	1689	1700	2846250	0.6%	TATASTEEL	155	21252000	2.3%	152	140	14206500	-7.6%
HDFCLIFE	630	1610400	0.8%	625	550	979000	-12.0%	TCS	4000	1359750	10.8%	3611	3500	613900	-3.1%
HEROMOTOCO	4000	450300	9.5%	3653	3200	169950	-12.4%	TECHM	1800	1123200	20.6%	1492	1400	534000	-6.2%
HINDALCO	700	2727200	1.3%	691	620	2349200	-10.3%	TITAN	3200	497700	3.9%	3079	3000	310800	-2.6%
HINDUNILVR	2300	867600	4.3%	2205	2200	451800	-0.2%	ULTRACEMCO	10400	149800	-1.7%	10582	10000	70150	-5.5%
ICICIBANK	1300	2242800	7.0%	1215	1200	3048500	-1.2%	UPL	640	1928165	1.6%	630	610	814355	-3.2%
INDUSINDBK	1000	4347500	6.8%	937	900	1877000	-3.9%	WIPRO	300	5811000	5.3%	285	280	2958000	-1.7%



- 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

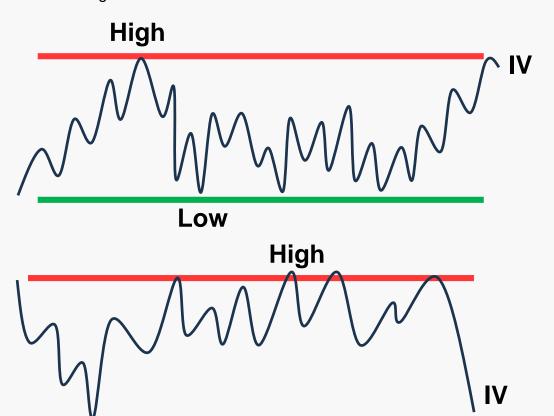


- Volume: Number of contracts traded for the day. If A bought 10 calls & B sold 10 calls, the volume for the day is 10 contracts
- Open Interest: The number of derivatives contracts that are open (have not been closed out). If A bought 10 calls, B bought another 10 calls and C sold 20 calls, then the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

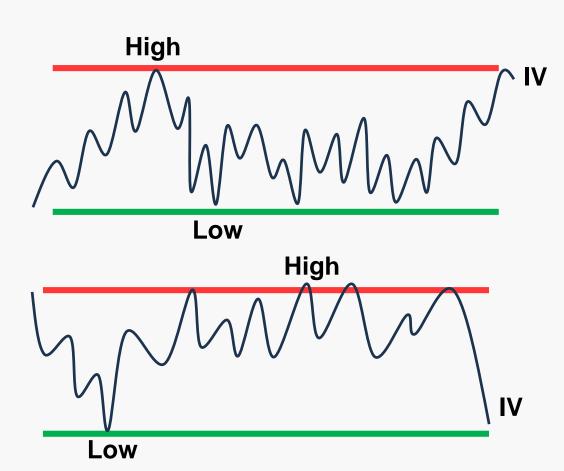


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

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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