



Daily Derivatives Report



Nifty Futures

	Value	Change
Most recent settlement	24,562	0.1%▲
Open Interest (OI)	1,28,34,575	0.0%▼
Change in OI (abs)	1,28,34,575	825▼
Premium / Discount (Abs)	94	4▲
Inference	Short Covering	

Bank Nifty Futures

	Value	Change	
Most recent settlement	53,381	1.0% ▲	
Open interest (OI)	26,69,715	4.7% ▲	
Change in OI (abs)	26,69,715	1,20,795▲	
Premium / Discount (Abs)	115	59▼	
Inference	Long Build Up		

Volatility Insights

	Value	Change
India VIX Index	14.45	0.1 ▲
Nifty ATM IV (%)	23.17	4.9▲
Bank Nifty ATM IV (%)	15.20	0.1▼
PCR (Nifty)	1.14	0.15▼
PCR (Bank Nifty)	1.12	0.11 ▲

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
CYIENT	3,59,100	152.0%	1945.8	3.0%			
INDIANB	22,76,200	143.7%	607.05	4.4%			
KEI	1,61,400	128.0%	4429.75	1.9%			
MAXHEALTH	9,43,950	125.6%	1067.75	2.8%			
LODHA	11,28,150	86.7%	1375.35	5.5%			

Short Buildup (Open Interest Higher + Price Lower)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
KALYANKJIL	27,97,750	115.8%	721.3	-1.3%			
CGPOWER	14,11,575	51.2%	755.95	-1.2%			
NYKAA	99,00,200	39.0%	168.23	-2.4%			
NHPC	1,74,91,200	35.4%	82.15	-0.3%			
NCC	28,77,275	22.2%	313.65	-0.8%			

Short Covering (Open Interest Lower + Price Higher)							
Symbol	Open Interest	Chg (%)	Price	Chg (%)			
MANAPPURAM	7,10,55,000	-8.0%	169.81	3.1%			
LUPIN	78,35,725	-6.4%	2106.05	0.9%			
GRANULES	2,18,17,000	-6.0%	544.75	1.7%			
NTPC	12,09,40,500	-5.6%	373.4	1.2%			
CANFINHOME	39,87,750	-4.4%	845.55	1.5%			

Long Unwinding (Open Interest Lower + Price Lower)							
Symbol Open Interest Chg (%) Price Chg (
NAUKRI	11,92,500	-6.5%	8463.65	-0.4%			
POLYCAB	19,45,500	-3.1%	7329.5	-1.7%			
MARUTI	31,33,150	-2.7%	11169.25	-1.2%			
NATIONALUM	4,93,57,500	-2.6%	245.91	-0.9%			
JSWSTEEL	2,60,02,350	-2.3%	997.25	-0.6%			

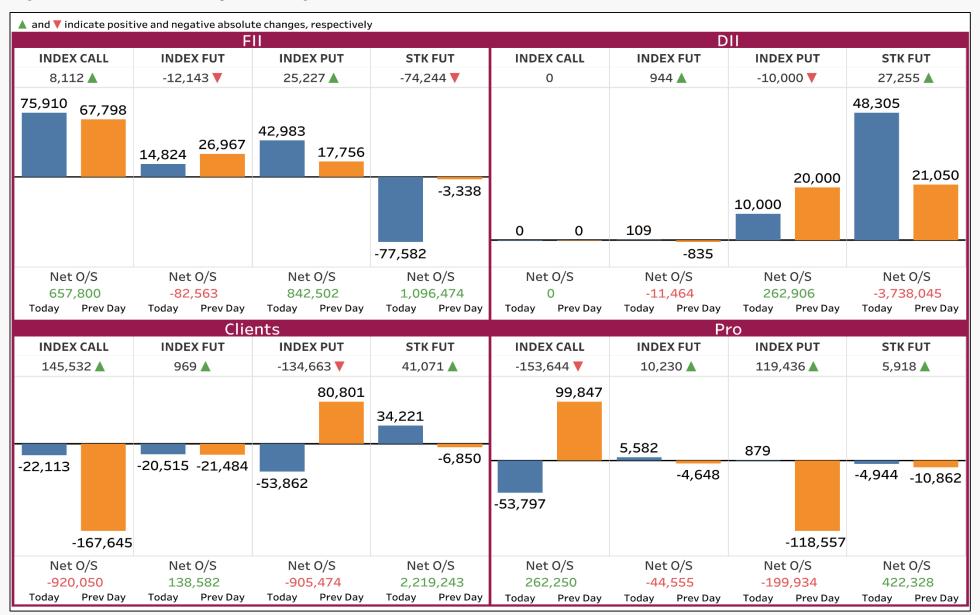
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

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

^{*}On expiration days, the premium/discount will be the difference between the new front-month contract and the cash market level on the day

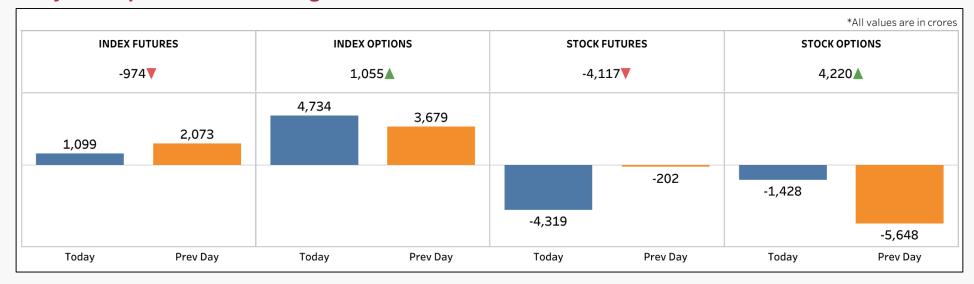


Open Interest Data by Participant

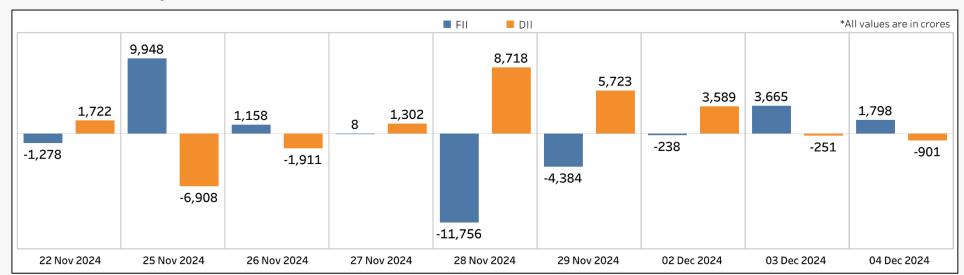




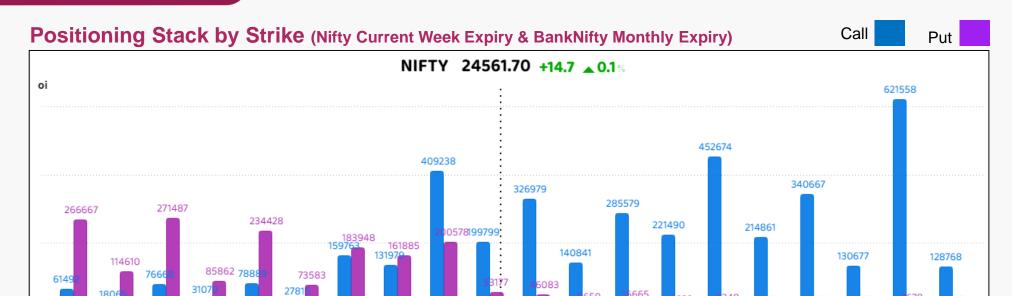
Daily Net Open Interest Change



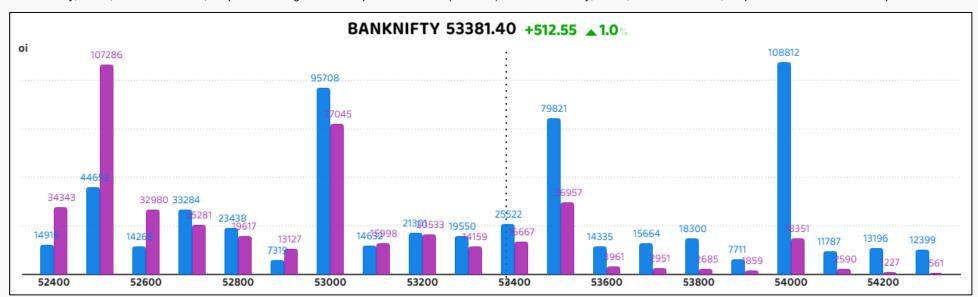
DII and FII Daily Cash Market Flows







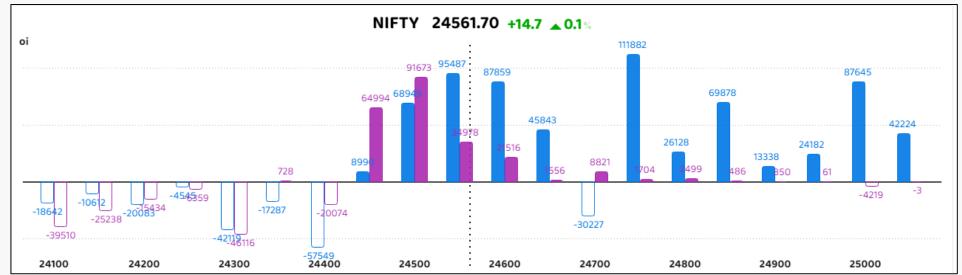
For the Nifty, the 25,000 call and the 24,200 put had the highest call and put concentration (contracts). For the Bank Nifty, the 54,000 call and the 52,500 put saw the most amount of open interest.



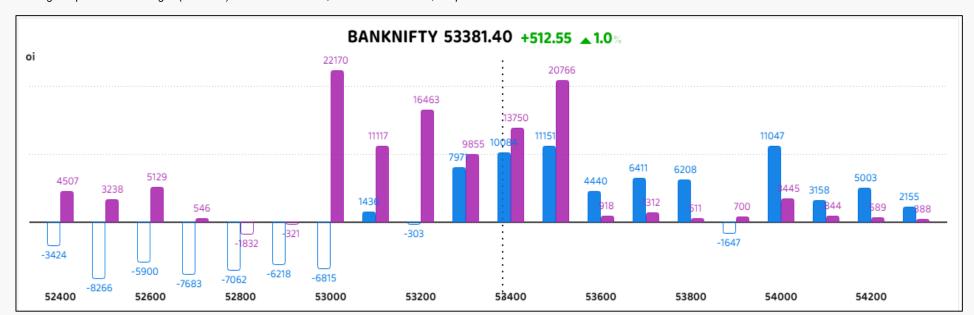






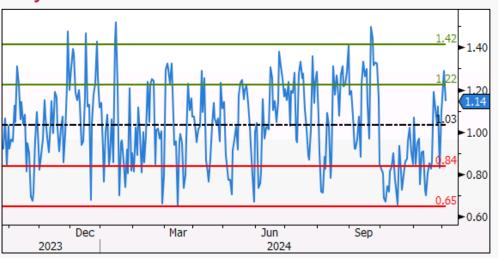


The largest open interest changes (contracts) were seen at the 24,750 call strike and 24,500 put strike.

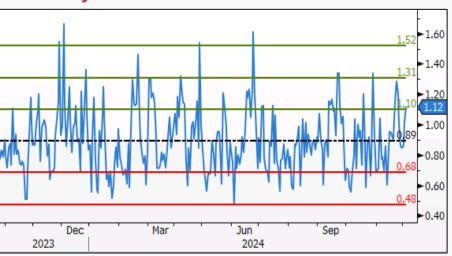




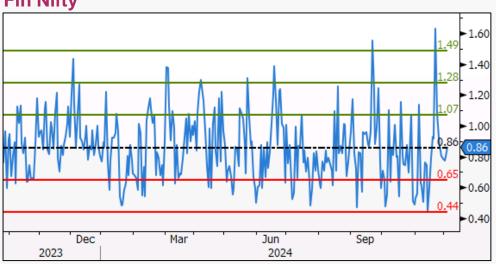
Nifty



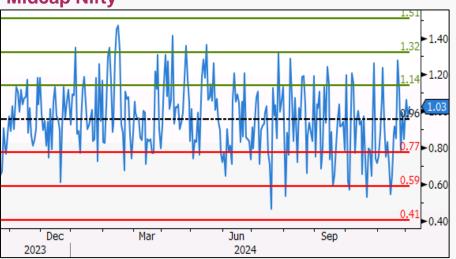
Bank Nifty



Fin Nifty

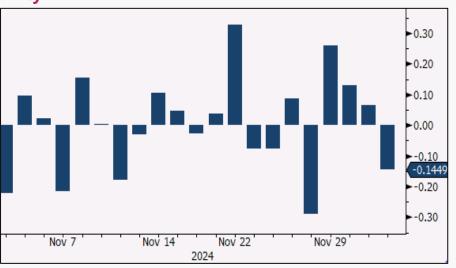


Midcap Nifty

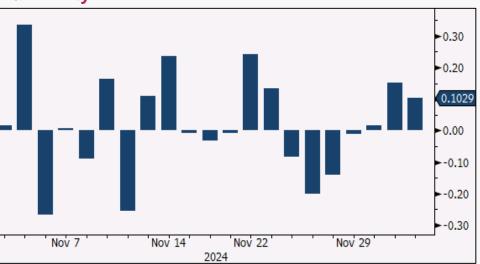




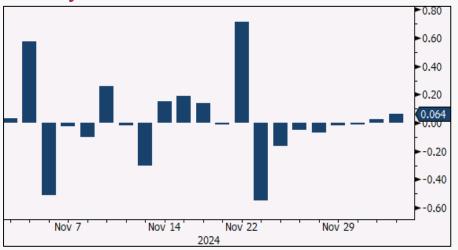
Nifty



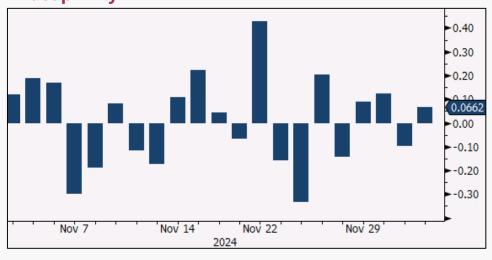
Bank Nifty



Fin Nifty



Midcap Nifty





Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
MARUTI SUZUKI IN	11129.85	-1.3	22.5	33.7	0.4	66.2
COLGATE PALMOLIV	2915.75	0.7	23.9	31.7	9.5	64.8
DIXON TECHNOLOGI	17391.3	3.1	33.7	51.3	1.8	64.4
KOTAK MAHINDRA	1757.5	0.4	19.1	28.7	1.9	64.1
BAJAJ AUTO LTD	8999.15	-1.8	25.6	40.6	2.1	61.0

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
GMR AIRPORTS INF	83.89	0.3	27.9	69.5	27.9	0.0
CITY UNION BANK	184.88	1.1	26.2	52.1	26.2	0.0
JUBILANT FOODWOR	660.15	0.5	22.6	57.2	22.1	1.6
INDIAN RAILWAY C	832.65	0.1	24.2	59.6	23.5	1.9
REC LTD	543.65	0.7	32.7	86.9	31.2	2.6



Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MANAPPURAM FINAN	169.59	3.3	46.2	80.2	2.7	82.6
RBL BANK LTD	173.4	6.6	48.2	79.2	13.3	76.4
ADANI PORTS AND	1269.55	-1.5	35.3	85.8	23.2	68.5
PVR INOX LTD	1597.7	0.0	32.9	43.7	23.5	67.9
MAHANAGAR GAS LT	1260.8	-1.4	34.4	48.5	23.3	63.6

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
GMR AIRPORTS INF	83.89	0.3	27.9	69.5	27.9	0.0
CITY UNION BANK	184.88	1.1	26.2	52.1	26.2	0.0
JUBILANT FOODWOR	660.15	0.5	22.6	57.2	22.1	0.6
PIDILITE INDS	3204.75	1.8	15.1	33.7	14.4	0.7
NAVIN FLUORINE I	3592.65	0.2	23.9	46.3	16.8	0.8



Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
UNITED BREWERIES	1953.1	-0.1	5609	538	10.4
COROMANDEL INTER	1757.95	-1.1	8732	1770	4.9
HDFC ASSET MANAG	4362.6	2.4	19350	4033	4.8
BOSCH LTD	35180.65	0.7	3213	777	4.1
VODAFONE IDEA LT	8.42	2.6	21442	5327	4.0

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
GRANULES INDIA	543.05	1.7	1901	2245	1.2
PIRAMAL ENTERPRI	1237.15	0.1	6656	6858	1.0
CIPLA LTD	1500.85	-2.2	25586	25269	1.0
BALKRISHNA INDS	2875.75	1.2	2318	2149	0.9
SUN TV NETWORK	769.6	-0.6	3382	3092	0.9



Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
COLGATE PALMOLIV	2915.75	0.7	14038	15107	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff	
ULTRATECH CEMENT	11766.8	-0.7	14629.0	14629.0	100.0	
DIXON TECHNOLOGI	17391.3	3.1	35528.0	35528.0	100.0	
COLGATE PALMOLIV	2915.75	0.7	6020.0	6323.0	95.2	
COAL INDIA LTD	416.65	-1.3	18607.0	22574.0	82.4	
JK CEMENTS LTD	4632.55	-0.3	1489.0	1846.0	80.7	



Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
	NO STOCK (OPTION MET THIS	CRITERIA		

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
	NO STOCK (OPTION MET THIS	CRITERIA		



Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
OBEROI REALTY	2164.75	5.1	53895	16279	3.3
ICICI LOMBARD GE	1950.85	2.9	13019	4066	3.2
INDIAN ENERGY EX	178.17	0.0	22733	7674	3.0
PI INDUSTRIES	4177.45	1.0	25815	9466	2.7
HDFC ASSET MANAG	4362.6	2.4	19350	8615	2.2

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
AUROBINDO PHARMA	1259.4	-0.4	23078	8044	2.9
M&M FIN SERVICES	285.35	0.0	6910	2960	2.3
INDIAN ENERGY EX	178.17	0.0	7875	3467	2.3
OBEROI REALTY	2164.75	5.1	15148	6693	2.3
BAJAJ AUTO LTD	8999.15	-1.8	48198	26069	1.8



Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio	
COROMANDEL INTER	1757.95	-1.1	3625	1884	1.9	
GRANULES INDIA	543.05	1.7	9766	5252	1.9	
DALMIA BHARAT LT	1936.7	0.3	2630	1704	1.5	
COLGATE PALMOLIV	2915.75	0.7	15107	10113	1.5	
HDFC LIFE INSURA	650.25	2.6	19065	13559	1.4	

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
GRANULES INDIA	543.05	1.7	7681	3625	2.1
ULTRATECH CEMENT	11766.8	-0.7	14629	8450	1.7
JK CEMENTS LTD	4632.55	-0.3	1489	894	1.7
HDFC LIFE INSURA	650.25	2.6	8201	5015	1.6
LAURUS LABS LTD	583.45	0.5	5677	3764	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	3000	1802100	20.3%	2495	3000	2092200	20.3%	INFY	1900	2690000	0.6%	1889	1800	1089200	-4.7%
ADANIPORTS	1300	2989200	2.4%	1270	1200	1542800	-5.5%	ITC	500	8848000	7.0%	467	450	3137600	-3.7%
APOLLOHOSP	7500	110250	3.7%	7232	7000	120250	-3.2%	JSWSTEEL	1000	996300	0.5%	995	900	369900	-9.5%
ASIANPAINT	2500	1025000	1.6%	2459	2500	495600	1.6%	KOTAKBANK	1900	2193600	8.1%	1758	1700	775600	-3.3%
AXISBANK	1200	2653750	3.5%	1159	1160	1151875	0.0%	LT	3800	784050	0.3%	3790	3700	427950	-2.4%
BAJAJ-AUTO	10000	453975	11.1%	8999	9000	154800	0.0%	LTIM	6500	104700	4.5%	6222	6200	58650	-0.3%
BAJAJFINSV	1700	848000	4.4%	1628	1600	635000	-1.7%	M&M	3100	742000	2.3%	3032	3000	541275	-1.0%
BAJFINANCE	7000	720875	3.9%	6740	6500	289625	-3.6%	MARUTI	11500	324150	3.3%	11130	11000	143550	-1.2%
BHARTIARTL	1640	1943225	3.5%	1584	1600	1057825	1.0%	NESTLEIND	2300	475000	1.9%	2258	2000	164600	-11.4%
BPCL	300	7878600	2.2%	294	300	2235600	2.2%	NTPC	370	14140500	-0.7%	373	370	3316500	-0.7%
BRITANNIA	5800	377700	19.5%	4852	4900	86000	1.0%	ONGC	264	8294825	1.3%	261	260	2514050	-0.3%
CIPLA	1560	720200	3.9%	1501	1500	348400	-0.1%	POWERGRID	350	5657400	7.7%	325	330	1789200	1.5%
COALINDIA	420	3586800	0.8%	417	420	2055900	0.8%	RELIANCE	1300	10365500	-0.7%	1309	1300	9756000	-0.7%
DIVISLAB	6500	133100	3.9%	6257	6200	121100	-0.9%	SBILIFE	1600	953625	10.1%	1453	1400	388500	-3.6%
DRREDDY	1300	644375	6.9%	1216	1200	303750	-1.3%	SBIN	900	6102750	4.7%	860	800	4947000	-6.9%
EICHERMOT	4900	250950	2.1%	4797	4500	199675	-6.2%	SUNPHARMA	1820	1219050	1.1%	1800	1800	354200	0.0%
GRASIM	2700	247500	-0.6%	2717	2600	165750	-4.3%	TATACONSUM	1000	785232	4.0%	961	960	317376	-0.1%
HCLTECH	1920	833350	1.2%	1898	1800	414750	-5.1%	TATAMOTORS	800	9482000	1.5%	788	800	3846150	1.5%
HDFCBANK	1900	5807450	2.1%	1860	1800	4199800	-3.2%	TATASTEEL	150	31603000	2.8%	146	140	13046000	-4.0%
HDFCLIFE	700	3527700	7.7%	650	650	1382700	0.0%	TCS	4400	668325	1.0%	4354	4200	555975	-3.5%
HEROMOTOCO	4800	529950	3.5%	4636	4800	212850	3.5%	TECHM	1800	832200	2.3%	1760	1600	686400	-9.1%
HINDALCO	700	2976400	5.6%	663	600	1178800	-9.5%	TITAN	3500	339325	4.0%	3364	3100	278775	-7.9%
HINDUNILVR	2500	909900	1.4%	2465	2400	339900	-2.6%	ULTRACEMCO	12000	94800	2.0%	11767	11000	128800	-6.5%
ICICIBANK	1340	4661300	1.8%	1316	1300	1901200	-1.2%	UPL	600	852295	5.6%	568	556.35	475605	-2.0%
INDUSINDBK	1100	3038000	10.1%	999	1000	1966500	0.1%	WIPRO	300	7275000	2.0%	294	290	2562000	-1.4%



- 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**

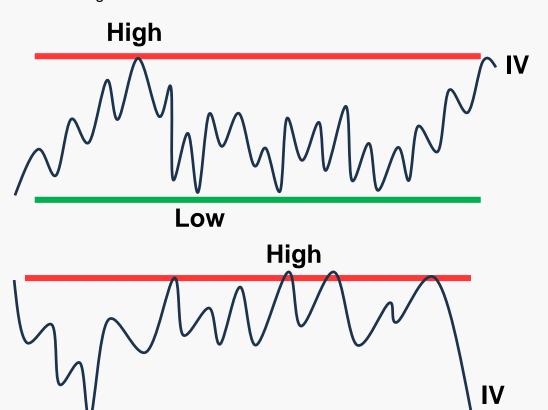


- Volume: Number of contracts traded for the day. If A bought 10 calls & B sold 10 calls, the volume for the day is 10 contracts
- Open Interest: The number of derivatives contracts that are open (have not been closed out). If A bought 10 calls, B bought another 10 calls and C sold 20 calls, then the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

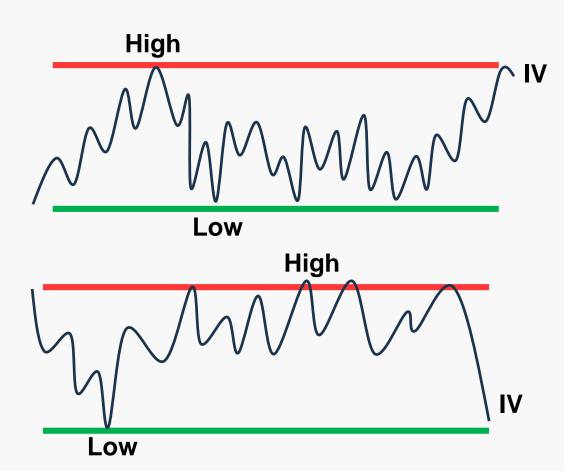


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

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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