

Daily Derivatives Report

Rajesh Palviya | Hemang Gor | Rahil Vora



Nifty Futures	Bank Nifty Futures					Volatility Insights		
	Value	Change		Value	Change		Value	Change
Most recent settlement	23,556	0.3%▼	Most recent settlement	49,769	0.2%▼	India VIX Index	14.1	2.2▼
Open Interest (OI)	1,83,18,000	1.9%▼	Open interest (OI)	34,85,430	3.6%▲	Nifty ATM IV (%)	12.81	7.4▼
Change in OI (abs)	1,83,18,000	3,57,075▼	Change in OI (abs)	34,85,430	1,21,710	Bank Nifty ATM IV (%)	17.13	2.5▼
Premium / Discount (Abs)	73	38▼	Premium / Discount (Abs)	262	13▼	PCR (Nifty)	0.87	0.14▼
Inference	Long Unw	inding	Inference	Short E	Build Up	PCR (Bank Nifty)	0.79	0.06▼

The Long Ratio for the FII Index Futures rose to 12.1%, against 11.9% recorded in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				Short Build	dup (Open Intere	st Higher + F	Price Lower)	
Symbol	Open Interest	Chg (%)	Price	Chg (%)	Symbol	Open Interest	Chg (%)	Price	Chg (%)
PHOENIXLTD	1,14,800	83.2%	1765.45	7.0%	NBCC	83,40,400	61.6%	95.65	-4.6%
DMART	45,08,250	30.0%	4039.35	9.8%	HUDCO	1,98,14,675	14.5%	218.5	-5.4%
HFCL	4,15,53,950	9.2%	106.78	8.3%	POLYCAB	22,05,500	14.2%	5857	-3.2%
MARUTI	30,12,300	8.3%	12891.8	4.6%	ASHOKLEY	5,57,40,000	13.3%	206.93	-4.7%
JUBLFOOD	1,66,48,750	8.0%	742.75	5.1%	HDFCLIFE	3,02,53,300	13.3%	628.75	-1.9%

Short Covering (Open Interest Lower + Price Higher)									
Symbol	Open Interest	Chg (%)	Price	Chg (%)					
INDIAMART	8,97,900	-3.6%	2165.4	4.3%					
HAVELLS	62,11,000	-3.5%	1663.25	5.9%					
KALYANKJIL	1,36,46,200	-3.5%	501.75	0.6%					
POONAWALLA	1,25,67,150	-3.4%	306.85	1.3%					
MARICO	1,38,28,800	-3.4%	691.45	3.0%					

Long Unwinding (Open Interest Lower + Price Lower)									
Symbol	Open Interest	Chg (%)	Price	Chg (%)					
IRB	9,60,63,000	-3.2%	55.83	-2.9%					
HINDPETRO	3,77,78,400	-2.8%	343.75	-4.0%					
BHARTIARTL	4,17,61,525	-2.2%	1627.1	-0.4%					
CYIENT	21,20,100	-1.8%	1459.4	-0.1%					
JKCEMENT	5,81,500	-1.7%	4747.1	-2.0%					

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

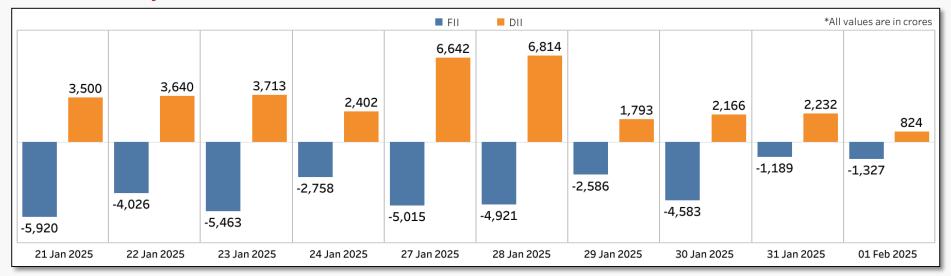
🔺 and 🔻 indicate posi	tive and negative absolu		/				
	INDEX FUT		STK FUT				STK FUT
104,213 🛦	1,223 🔺	109,654 🔺	-66,234 🔻	1,850 🔺	4,329 🔺	-4,026 🔻	49,803 🛦
		5,269	5,990			4,026	30,973
-5,311	-10 -1,233			1,850 O	707	0 4,028	
-109,524		-104,385			-3,622		-18,830
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-199,140 Today Prev Day	- <mark>151,533</mark> Today Prev Day	- <mark>39,216</mark> Today Prev Day	1,198,376 Today Prev Day	1,920 Today Prev Day	12,637 Today Prev Day	35,691 Today Prev Day	- <mark>3,815,912</mark> Today Prev Day
	Clie	ents			Pi	r0	
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-77,794 🔻	8,028	-108,291 🔻					
		-100,291 V	11,147 🔺	-28,269 🔻	-13,580 🔻	2,663 🔺	5,284 🔺
141,050)	129,025		-28,269	-13,580 V 12,643	2,663 🛦	5,284 🛦
141,050 63,256	240			-28,269 ▼ -31,526		2,663 ▲ -26,003 _{-28,666}	
		129,025	-14 270		12,643		
63,256 Net O/S	240 -7,788 Net O/S	129,025 20,734 Net O/S	-14,270 -25,417 Net O/S	-31,526 -59,795 Net O/S	12,643 -937 Net O/S	-26,003 _{-28,666}	-22,693 -27,977 Net O/S
63,256	240 -7,788	129,025	-14,270 -25,417	-31,526	-937	-26,003 _{-28,666}	-22,693 -27,977



Daily Net Open Interest Change

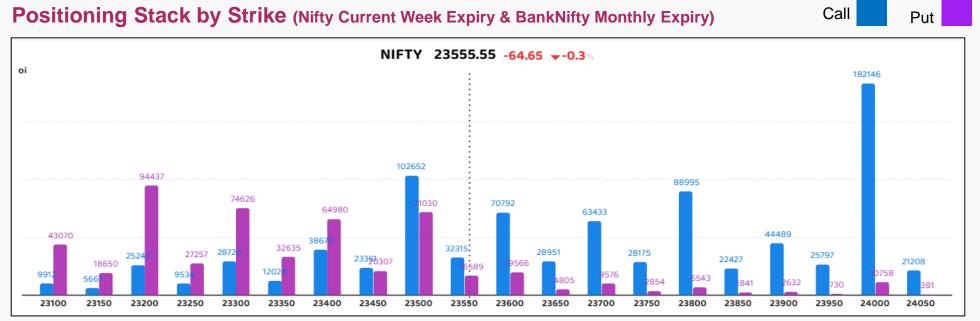
*All values are in crores								
INDEX F	INDEX FUTURES INDEX OPTIONS		STOCK FUTURES		STOCK OPTIONS			
37	4	41,3	55	-3,2	264	87	6▲	
165		3,313		928	4,193			
	-209					-1,755	-2,631	
			-38,042					
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day	

DII and FII Daily Cash Market Flows





Options Strike Concentration





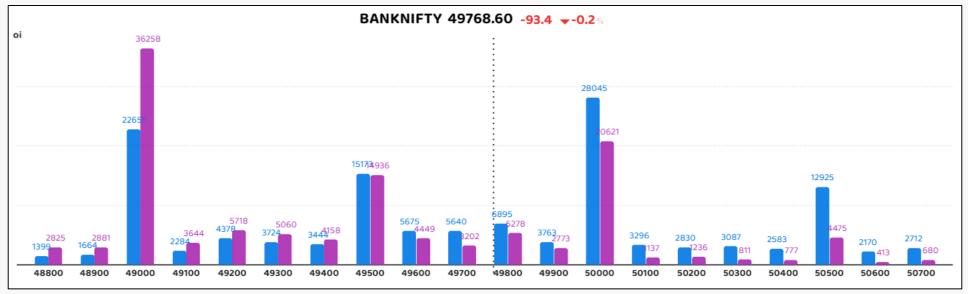
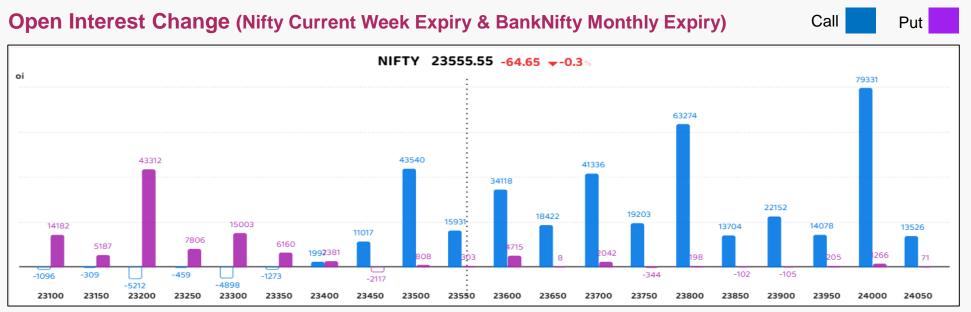
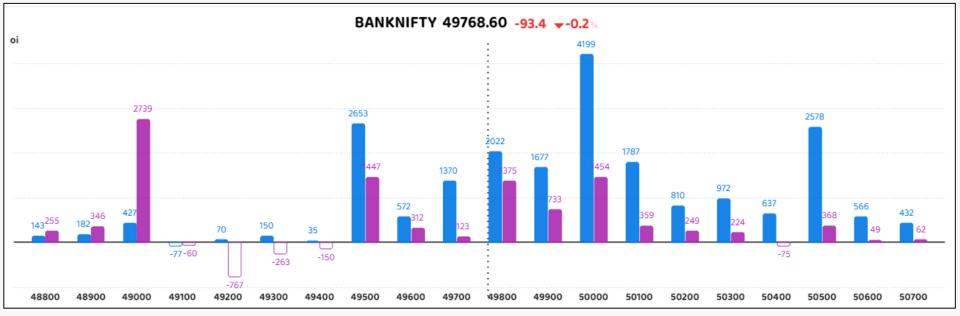


Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session





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 50000 Call & the 49000 Put



Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
PVR INOX LTD	1123.75	3.0	43.5	45.3	14.8	94.2
TITAN CO LTD	3552	1.8	28.1	33.5	2.3	82.7
ABBOTT INDIA LTD	25892.1	-1.1	30.3	36.5	6.5	79.4
DIXON TECHNOLOGI	14714.35	-1.8	41.2	51.5	1.8	79.2
ESCORTS KUBOTA L	3450.15	-4.8	36.4	42.5	15.3	77.8

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HDFC LIFE INSURA	625.5	-2.0	24.3	80.6	19.6	7.6
MCX INDIA LTD	5774.75	0.7	35.0	71.9	29.9	12.0
CIPLA LTD	1439.5	-2.7	24.0	61.3	18.0	13.9
INTERGLOBE AVIAT	4492.4	3.9	26.0	53.8	21.1	15.0
CONTAINER CORP	755.95	-3.1	29.4	75.9	20.2	16.5



Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
PVRINOX IS	1123.75	3.0	43.5	45.3	14.8	98.9
ABB IS	5499.5	-6.4	42.7	56.4	23.7	97.7
BOOT IS	25892.1	-1.1	30.3	36.5	6.5	96.4
ESCORTS IS	3450.15	-4.8	36.4	42.5	15.3	95.8
SUNTV IS	625.2	1.0	39.6	49.4	10.0	94.7

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MANAPPURAM FINAN	190.98	3.5	14.8	64.2	2.7	0.7
AU SMALL FINANCE	588.7	4.5	16.5	116.2	1.7	1.4
INDIAMART INTERM	2087.35	0.2	28.0	56.4	16.6	9.4
MRF LTD	112883.7	1.5	18.7	39.1	8.9	13.1
BATA INDIA LTD	1237.7	0.0	21.2	39.2	13.4	16.1



Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
SAMVARDHANA MOTH	142.63	1.0	8809	2987	3.0
AMBUJA CEMENTS	501.5	-2.2	35546	12926	2.8
NTPC LTD	317.7	-1.9	68372	25180	2.7
ADANI PORTS AND	1084.1	-1.4	56853	21107	2.7
INTERGLOBE AVIAT	4492.4	3.9	30421	11411	2.7

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
NFIL IS	4132.65	-0.4	4696	6362	1.4
PIEL IS	1011.85	-1.1	3370	4151	1.2
UNITDSPR IS	1498.1	5.2	16672	16579	1.0
JSW STEEL LTD	934.25	-1.1	16503	16173	1.0
TRCL IS	896.8	-2.3	6675	6521	1.0



Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
COAL INDIA LTD	385.3	-2.7	24330	41955	58.0
HINDUSTAN AERONA	3774.95	-4.1	39030	68088	57.3
LARSEN & TOUBRO	3447.5	-3.4	47477	85207	55.7
ULTRATECH CEMENT	11259.15	-2.0	21603	42989	50.3
BHARAT ELECTRON	281.8	-3.7	24494	50226	48.8

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff	
LARSEN & TOUBRO	3447.5	-3.4	27539	35113	78.4	
COAL INDIA LTD	385.3	-2.7	16038	25673	62.5	
GAIL INDIA LTD	175.6	-0.9	9261	14895	62.2	
HINDUSTAN AERONA	3774.95	-4.1	22312	36416	61.3	
MARUTI SUZUKI IN	12916.5	4.9	31075	53706	57.9	



Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff			
NO STOCK OPTION MET THE C	NO STOCK OPTION MET THE CRITERIA MENTIONED IN THE FOOT NOTE IN THE PREVIOUS TRADING SESSION							

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff		
NO STOCK OPTION MET THE CRITERIA MENTIONED IN THE FOOT NOTE IN THE PREVIOUS TRADING SESSION							



Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
HDFC LIFE INSURA	625.5	-2.0	84468	22761	3.7
ITC LTD	462.55	3.4	122244	33944	3.6
BHARAT ELECTRON	281.8	-3.7	122992	34307	3.6
LARSEN & TOUBRO	3447.5	-3.4	213695	61418	3.5
SBI LIFE INSURAN	1454.35	-2.0	73257	24600	3.0

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
ITC LTD	462.55	3.4	75650	20883	3.6
TITAN CO LTD	3552	1.8	71485	21645	3.3
BHARAT ELECTRON	281.8	-3.7	58934	20451	2.9
SBI LIFE INSURAN	1454.35	-2.0	29061	10762	2.7
HDFC LIFE INSURA	625.5	-2.0	38066	14490	2.6



Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
AMBUJA CEMENTS	501.5	-2.2	19115	11737	1.6
LARSEN & TOUBRO	3447.5	-3.4	47477	37629	1.3
NESTLE INDIA LTD	2327.2	0.6	12550	11980	1.0
BHARAT ELECTRON	281.8	-3.7	24494	23574	1.0
ITC LTD	462.55	3.4	23618	23134	1.0

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
ITC LTD	462.55	3.4	14670	11207	1.3
JSP IS	776.35	-1.9	9370	7770	1.2
BHARAT ELECTRON	281.8	-3.7	15004	13457	1.1
AMBUJA CEMENTS	501.5	-2.2	9680	9117	1.1
LARSEN & TOUBRO	3447.5	-3.4	27539	26412	1.0



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	1286100	23.3%	2270	2800	2623800	23.3%	INFY	1900	1222800	2.6%	1851	1800	791600	-2.8%
ADANIPORTS	1200	1903200	10.7%	1084	1100	814400	1.5%	ПС	470	4856000	1.6%	463	400	3230400	-13.5%
APOLLOHOSP	7000	54500	2.3%	6841	6800	38875	-0.6%	JSWSTEEL	1000	551475	7.0%	934	800	491400	-14.4%
ASIANPAINT	2500	642200	6.3%	2351	2200	339800	-6.4%	KOTAKBANK	2000	1077600	5.1%	1903	1800	811200	-5.4%
AXISBANK	1100	3276250	10.2%	998	1000	1309375	0.2%	LT	3700	1309650	7.3%	3448	3300	626100	-4.3%
BAJAJ-AUTO	10000	148875	9.2%	9156	8000	75300	-12.6%	LTIM	7000	99600	18.5%	5906	5700	45300	-3.5%
BAJAJFINSV	1800	1024000	2.6%	1754	1700	499500	-3.1%	M&M	3300	306075	7.3%	3077	3000	330575	-2.5%
BAJFINANCE	8300	364125	3.7%	8000	7000	270000	-12.5%	MARUTI	13000	365200	0.6%	12917	12000	267250	-7.1%
BHARTIARTL	1700	748125	4.7%	1623	1600	858325	-1.4%	NESTLEIND	2400	748200	3.1%	2327	2100	317000	-9.8%
BPCL	270	9466200	5.6%	256	250	1900800	-2.2%	NTPC	340	10327500	7.0%	318	390	3778500	22.8%
BRITANNIA	5000	165700	-3.9%	5201	5000	85200	-3.9%	ONGC	270	8997450	4.8%	258	250	1969275	-2.9%
CIPLA	1500	861575	4.2%	1440	1440	283075	0.0%	POWERGRID	310	4829400	7.0%	290	320	1164600	10.4%
COALINDIA	410	4962300	6.4%	385	450	3097500	16.8%	RELIANCE	1300	8588000	2.8%	1265	1200	3435500	-5.1%
DIVISLAB	6000	113400	6.8%	5619	5400	79300	-3.9%	SBILIFE	1600	829500	10.0%	1454	1460	219750	0.4%
DRREDDY	1240	1220625	2.9%	1205	1050	346250	-12.9%	SBIN	800	5779500	4.4%	766	800	3247500	4.4%
EICHERMOT	5350	116725	-0.7%	5390	5200	82600	-3.5%	SUNPHARMA	1800	1371300	3.3%	1742	1700	496300	-2.4%
GRASIM	2600	307000	6.5%	2441	2400	144750	-1.7%	TATACONSUM	1100	424536	2.8%	1070	1000	615144	-6.5%
HCLTECH	1900	773500	12.2%	1694	1540	439600	-9.1%	TATAMOTORS	800	8234050	13.2%	707	700	3483700	-0.9%
HDFCBANK	1800	3708650	6.4%	1691	1700	1826550	0.5%	TATASTEEL	150	18634000	12.8%	133	160	11357500	20.3%
HDFCLIFE	700	2717000	11.9%	626	600	951500	-4.1%	TCS	4200	632800	3.1%	4073	4000	360500	-1.8%
HEROMOTOCO	4400	350850	0.0%	4402	4000	140100	-9.1%	TECHM	1800	401400	9.3%	1646	1600	273600	-2.8%
HINDALCO	600	1370600	2.3%	586	600	1790600	2.3%	TITAN	3900	349475	9.8%	3552	3200	496650	-9.9%
HINDUNILVR	2600	804600	3.7%	2506	2400	415500	-4.2%	ULTRACEMCO	12000	347850	6.6%	11259	11000	80350	-2.3%
ICICIBANK	1300	2292500	3.5%	1256	1200	2077600	-4.4%	UPL	620	1457980	2.6%	604	550	1273700	-8.9%
INDUSINDBK	1000	1892000	-0.9%	1009	1000	1450500	-0.9%	WIPRO	319	2571000	4.7%	305	274	2610000	-10.1%

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



- 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**

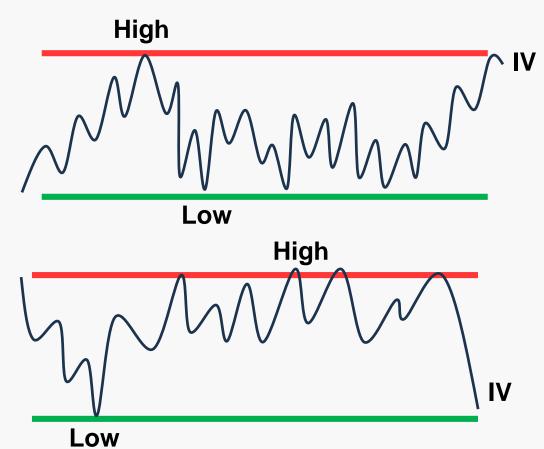
*ATM IV is the midpoint of the IV for the ATM call and put respectively



- 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.

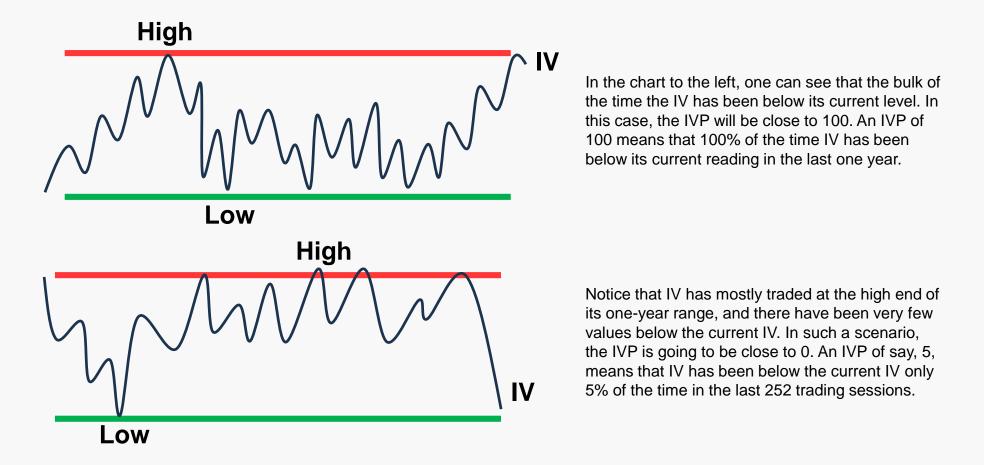
In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

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.





Axis Securities Limited is a subsidiary company of Axis Bank Ltd. Axis Bank Ltd. is a listed public company and one of India's largest private sector banks and has its various subsidiaries engaged in businesses of Asset management, NBFC, Merchant Banking, Trusteeship, Venture Capital, Stock Broking, the details in respect of which are available on www.axisbank.com.

Axis Securities Limited, is registered as a Stock Broker, Depository Participant, Portfolio Manager, Investment Adviser and Research Analyst with Securities and Exchange Board of India Corporate Agent with Insurance Regulatory and Development Authority Distributor for Mutual Funds with AMFI

Registration Details:

SEBI Single Reg. No.- NSE, BSE, MSEI, MCX & NCDEX – INZ000161633 | SEBI Depository Participant Reg. No. IN-DP-403-2019 | Portfolio Manager Reg. No.- INP000000654 | Investment Advisor Reg No. INA000000615 | SEBI-Research Analyst Reg. No. INH000000297 | IRDA Corporate Agent (Composite) Reg. No. CA0073 | PFRDA – POP Reg. No. POP387122023 | Mutual Fund Distributor ARN- 64610.

Compliance Officer Details: Name - Mr. Maneesh Mathew, Tel No. - 022-68555574, Email id - compliance.officer@axisdirect.in.;

Registered Office Address – Axis Securities Limited, Unit No.002, Building- A, Agastya Corporate Park, Piramal Realty, Kamani Junction, Kurla (W), Mumbai – 400070.

Administrative office address: Aurum Q Parć, Q2 Building, Unit No. 1001, 10th Floor, Level - 6, Plot No. 4/1 TTC, Thane - Belapur Road, Ghansoli, Navi Mumbai, Pin Code - 400710.

In case of any grievances please call us at 022-40508080 or write to us helpdesk@axisdirect.in.

We hereby declare that our activities were neither suspended nor we have defaulted with any stock exchange authority with whom we are registered in last five years. However, SEBI, Exchanges, Clearing Corporations and Depositories etc. have conducted the routine inspection and based on their observations have issued advise/warning/show cause notices/deficiency letters/ or levied penalty or imposed charges for certain deviations observed in inspections or in normal course of business, as a Stock Broker / Depository Participant/Portfolio Manager. We have not been debarred from doing business by any Stock Exchange / SEBI or any other authorities; nor has our certificate of registration been cancelled by SEBI at any point of time.

Investments in securities market are subject to market risks. Read all the related documents carefully before investing. By referring to any particular sector, Axis Securities does not provide any promise or assurance of favourable view for a particular industry or sector or business group in any manner.

Registration granted by SEBI, membership of BASL (in case of IAs) and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors. None of the research recommendations promise or guarantee any assured, minimum or risk-free return to the investors. Our research should not be considered as an advertisement or advice, professional or otherwise. This research report and its respective content by Axis Securities made available on this page or otherwise do not constitute an offer to sell or purchase or subscribe for any securities or solicitation of any investments or investment services for the residents of Canada and / or USA or any jurisdiction where such an offer or solicitation would be illegal.

Subject company(ies) may have been client during twelve months preceding the date of distribution of the research report. Derivatives are a sophisticated investment device. The investor is requested to take into consideration all the risk factors before actually trading in derivative contracts.

Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Information, opinions and estimates contained in this report reflect a judgment of its original date of publication by ASL and are subject to change without notice. The price, value of and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments is subject to exchange rate fluctuation that may have a positive or adverse effect on the price or income of such securities or financial instruments.

The information and opinions in this report have been prepared by Axis Securities and are subject to change without any notice. The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of Axis Securities. The report must not be used as a singular basis of any investment decision. The views herein are of a general nature and do not consider the risk appetite, investment objective or the particular circumstances of an individual investor. The investor is requested to take into consideration all the risk factors including their financial condition, suitability to risk return profile and the like and take professional advice before investing.

While we would endeavour to update the information herein on a reasonable basis, Axis Securities is under no obligation to update or keep the information current. Also, there may be regulatory, compliance or other reasons that may prevent Axis Securities from doing so. Non-rated securities indicate that rating on a particular security has been suspended temporarily and such suspension is in compliance with applicable regulations and/or Axis Securities policies, in circumstances where Axis Securities might be acting in an advisory capacity to this company, or in certain other circumstances.



Disclaimer & Disclosures :

This report is based on information obtained in good faith from public sources and sources believed to be reliable, but no independent verification has been made nor is its accuracy or completeness guaranteed. This report and information herein is solely for informational purpose and shall not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. Axis Securities will not treat recipients as customers by virtue of their receiving this report. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. The recipient should independently evaluate the investment risks. The value and return on investment may vary because of changes in interest rates, foreign exchange rates or any other reason. Axis Securities accepts no liabilities whatsoever for any loss or damage of any kind arising out of the use of this report. Past performance is not necessarily a guide to future performance. Investors are advised to see Risk Disclosure Document to understand the risks associated before investing in the securities markets. Actual results may differ materially from those set forth in projections. Forward-looking statements are not predictions and may be subject to change without notice. Axis Securities or its associates might have managed or co-managed public offering of securities for the subject company or might have been mandated by the subject company for any other assignment in the past twelve months. Axis Securities or its associates might have received any compensation from the companies mentioned in the report during the period preceding twelve months from the date of this report for services in respect of managing or co-managing public offerings, corporate finance, investment banking or merchant banking, brokerage services or other advisory service in a merger or specific transaction. Axis Securities or its associates might have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the companies mentioned in the report in the past twelve months. Axis Securities encourages independence in research report preparation and strives to minimize conflict in preparation of research report. Axis Securities or its associates or its analysts did not receive any compensation or other benefits from the companies mentioned in the report or third party in connection with preparation of the research report. Accordingly, neither Axis Securities nor Research Analysts and / or their relatives have any material conflict of interest at the time of publication of this report. Please note that Axis Securities has a proprietary trading desk. This desk maintains an arm's length distance with the Research team and all its activities are segregated from Research activities. The proprietary desk operates independently. potentially leading to investment decisions that may deviate from research views.

Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

Research Analyst may have served as an officer, director or employee of subject company(ies). Axis Securities or Research Analysts or their relatives do not own 1% or more of the equity securities of the Company mentioned in the report as of the last day of the month preceding the publication of the research report. Since associates of Axis Securities and Axis Securities as an entity are engaged in various financial service businesses, they might have financial interests or actual/beneficial ownership of one percent or more or other material conflict of interest in various companies including the subject company/companies mentioned in this report. Axis Securities may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report. Certain transactions -including those involving futures, options and other derivatives as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. Reports based on technical analysis centres on studying charts of a stock'sprice movement and trading volume, as opposed to focusing on a company's fundamentals and as such, may not match with a report on a company's fundamentals.

We and our affiliates/associates, officers, directors, and employees, Research Analyst(including relatives) worldwide may: (a) from time to time, have long or short positions in, and buy or sell the securities thereof, of company (ies) mentioned herein or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the subject company/company (ies) discussed herein or act as advisor or lender / borrower to such company (ies) or have other potential/material conflict of interest with respect to any recommendation and related information and opinions at the time of publication of Research Report or at the time of public appearance. Axis Securities may have proprietary long/short position in the above mentioned scrip(s) and therefore may be considered as interested. This should not be construed as invitation or solicitation to do business with Axis Securities. Axis Securities is also a Portfolio Manager. Portfolio Management Team (PMS) takes its investment decisions independent of the PCG research and accordingly PMS may have positions contrary to the PCG research recommendation.



Disclaimer & Disclosures:

Axis Securities or its associates or its analysts did not receive any compensation or other benefits from the companies mentioned in the report or third party in connection with preparation of the research report. Accordingly, neither Axis Securities nor Research Analysts and / or their relatives have any material conflict of interest at the time of publication of this report. Please note that Axis Securities has a proprietary trading desk. This desk maintains an arm's length distance with the Research team and all its activities are segregated from Research activities. The proprietary desk operates independently, potentially leading to investment decisions that may deviate from research views.

Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions.

Research Analyst may have served as an officer, director or employee of subject company(ies). Axis Securities or Research Analysts or their relatives do not own 1% or more of the equity securities of the Company mentioned in the report as of the last day of the month preceding the publication of the research report. Since associates of Axis Securities and Axis Securities as an entity are engaged in various financial service businesses, they might have financial interests or actual/beneficial ownership of one percent or more or other material conflict of interest in various companies including the subject company/companies mentioned in this report. Axis Securities may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report. Certain transactions -including those involving futures, options and other derivatives as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. Reports based on technical analysis centres on studying charts of a stock'sprice movement and trading volume, as opposed to focusing on a company's fundamentals and as such, may not match with a report on a company's fundamentals.

We and our affiliates/associates, officers, directors, and employees, Research Analyst(including relatives) worldwide may: (a) from time to time, have long or short positions in, and buy or sell the securities thereof, of company (ies) mentioned herein or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the subject company/company (ies) discussed herein or act as advisor or lender / borrower to such company (ies) or have other potential/material conflict of interest with respect to any recommendation and related information and opinions at the time of publication of Research Report or at the time of public appearance. Axis Securities may have proprietary long/short position in the above mentioned scrip(s) and therefore may be considered as interested. This should not be construed as invitation or solicitation to do business with Axis Securities. Axis Securities is also a Portfolio Manager. Portfolio Management Team (PMS) takes its investment decisions independent of the PCG research and accordingly PMS may have positions contrary to the PCG research recommendation.

Sr. No	Name	Designation	E-mail
1	Rajesh Palviya	SVP Research (Head Technical & Derivatives)	rajesh.palviya@axissecurities.in
2	Hemang Gor	Derivative Analyst	hemang.gor@axissecurities.in
3	Rahil Vora	Derivative Analyst	rahil.vora@axissecurities.in