

Daily Derivatives Report

Rajesh Palviya | Hemang Gor | Rahil Vora



Nifty Futures	ty Futures Bank Nifty Futures			Volatility Insights				
	Value	Change		Value	Change		Value	Change
Most recent settlement	24,453	1.3%▲	Most recent settlement	55,671	1.7%▲	India VIX Index	16.94	0.22▼
Open Interest (OI)	1,42,31,700	7.8%▲	Open interest (OI)	26,80,220	2.8%▲	Nifty ATM IV (%)	15.55	0.5▼
Change in OI (abs)	1,42,31,700	10,24,275	Change in OI (abs)	26,80,220	72,895	Bank Nifty ATM IV (%)	16.96	0.6▲
Premium / Discount (Abs)	124	25▲	Premium / Discount (Abs)	238	178▲	PCR (Nifty)	1.22	0.35 🛦
Inference	Long Bui	ld Up	Inference	Long B	uild Up	PCR (Bank Nifty)	1.02	0.01▼

The Long Ratio for FII Index Futures jump at 43.3 %, up from 37.6 % in the last session..

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				Short Buil	dup (Open Interes	st Higher + I	Price Lower)	
Symbol	Open Interest	Chg (%)	Price	Chg (%)	Symbol	Open Interest	Chg (%)	Price	Chg (%)
KPITTECH	32,96,400	20.2%	1230	0.9%	LTF	8,84,45,764	23.4%	159.63	-4.7%
EXIDEIND	2,05,00,200	10.6%	379.6	2.2%	JSWENERGY	2,48,27,750	9.7%	479.25	-0.9%
PRESTIGE	47,73,525	8.4%	1324.4	4.7%	BANDHANBNK	9,15,10,400	5.5%	165.17	-0.3%
IGL	2,89,79,500	8.1%	183.94	4.8%	IRFC	7,34,00,450	4.8%	123.68	-0.1%
POONAWALLA	1,84,06,100	6.4%	385.45	3.2%	ITC	12,06,91,200	3.4%	429.05	-0.2%

Short Covering (Open Interest Lower + Price Higher)									
Symbol	Open Interest	Chg (%)	Price	Chg (%)					
HINDZINC	46,97,875	-17.3%	453.15	1.6%					
OFSS	5,99,175	-10.1%	8796	1.8%					
RECLTD	5,15,69,875	-4.2%	435.2	2.9%					
BALKRISIND	24,53,100	-3.9%	2590.3	2.4%					
BAJAJFINSV	1,22,19,000	-3.2%	2058	0.5%					

Long Unwinding (Open Interest Lower + Price Lower)									
Symbol	Open Interest	Chg (%)	Price	Chg (%)					
APOLLOTYRE	92,15,700	-8.4%	462.45	-0.2%					
HCLTECH	1,45,08,900	-1.5%	1558.6	-0.6%					
SHREECEM	2,45,300	-0.8%	30565	-0.5%					
MPHASIS	45,53,450	-0.6%	2511.8	-1.3%					
GODREJCP	1,19,87,000	-0.3%	1262	0.0%					

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 Trends by Participant

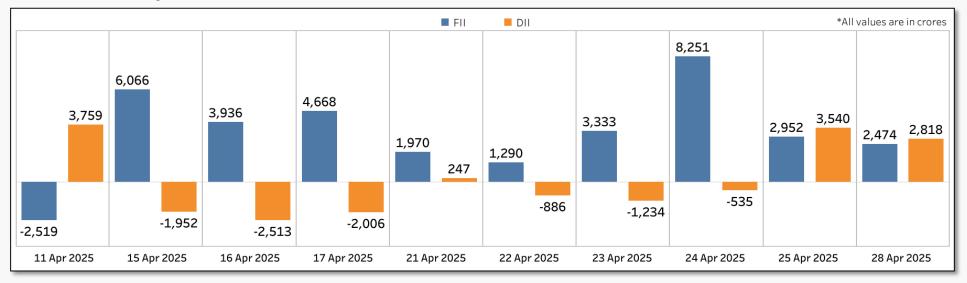
▲ and ▼ indicate posit	tive and negative absolu		,		D		
INDEX CALL	F INDEX FUT	II INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	II INDEX PUT	STK FUT
168,407 🔺	22,836	128,104	69,400 🔺	0	-7,851 🔻	-6,101 🔻	-50,983 🔻
8,560	12,450		84,896 15,496	0 0		6,101 0	14,898
-159,847	-10,386	-43,321 -171,425			-3,236 -11,087		-36,085
Net O/S -54,756 Today Prev Day	Net O/S -57 Today Prev Day	Net O/S -107,157 Today Prev Day	Net O/S 1,701,007 Today Prev Day	Net O/S 70 Today Prev Day	Net O/S 50,265 Today Prev Day	Net O/S 54,716 Today Prev Day	Net O/S - <mark>3,634,163</mark> Today Prev Day
	Clie	ents			P	ro	
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-140,803 🔻	-12,760 🔻	27,806 🔺	8,702 🛦	-27,603 🔻	-2,225 🔻	-149,809 🔻	-27,119 🔻
93,829		126,291 98,485		66,018 38,415	8,067 10,292	66,838	7,052
	3,330						-20,067
-46,974	-9,430		-28,744 -37,446			-82,971	
Net O/S -125,189	Net O/S -31,851	Net O/S 152,367	Net O/S 1,624,156	Net O/S 179,875	Net O/S -18,357	Net O/S -99,929	Net O/S 309,000
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day



Daily Net Open Interest Change

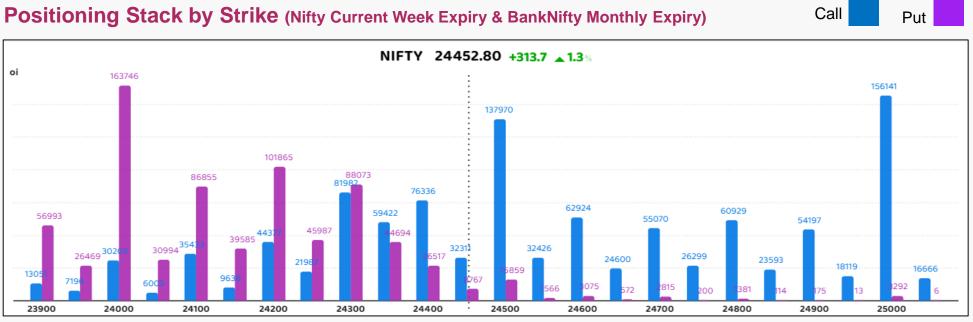
	*All values are in crores								
INDEX FUTURES	TURES INDEX OPTIONS		STOCK	FUTURES	STOCK OPTIONS				
3,883▲	50,464	50,464		3,343▲		6▲			
2,211			5,245	1,902					
-1,672	-8,895				-1,000	-1,745			
		-59,359							
Today Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day			

DII and FII Daily Cash Market Flows





Options Strike Concentration



For the Nifty, the 25,000 Call and the 24,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 55,500 Call and the 55,000 Put saw the most amount of open interest.

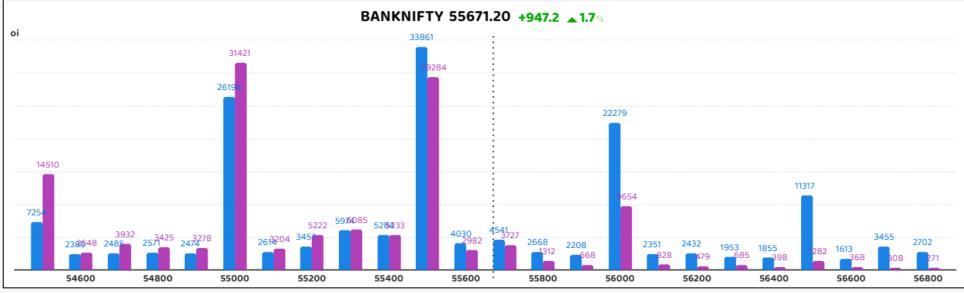
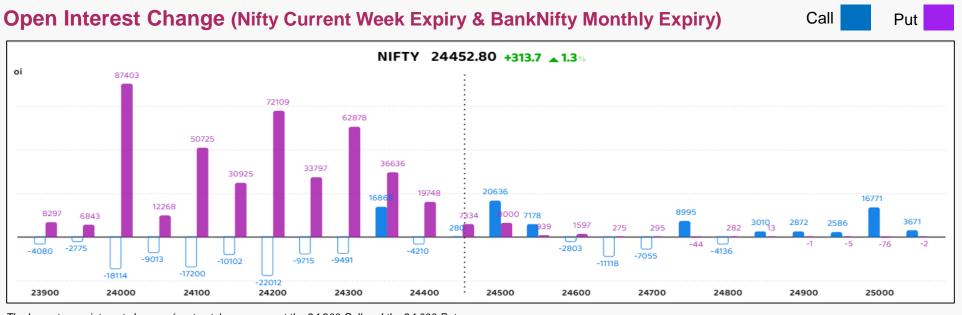
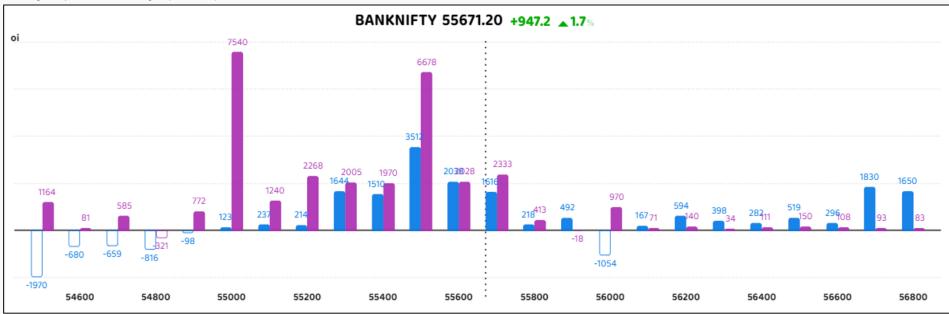


Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session





The largest open interest changes (contracts) were seen at the 24,200 Call and the 24,000 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,000 Call & the 54,500 Put



Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
KOTAK MAHINDRA	2225.6	1.0	32.4	32.4	1.9	100.0
DIXON TECHNOLOGI	16415	1.2	45.5	53.0	1.8	85.4
BAJAJ AUTO LTD	8096	0.8	30.0	36.4	2.1	81.4
TITAN CO LTD	3369.1	0.1	26.9	33.5	2.3	78.8
SYNGENE INTERNAT	616.95	-2.1	33.7	38.8	15.7	78.0

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
CENTRAL DEPOSITO	1339.1	0.6	31.9	58.3	31.2	2.6
HDFC LIFE INSURA	710.85	0.9	22.6	80.6	19.6	4.9
ADANI GREEN ENER	941	3.1	48.3	74.3	46.9	5.1
NBCC INDIA LTD	98.64	3.3	40.2	65.4	38.6	6.0
INDIAN RENEWABLE	167.89	0.2	44.9	69.2	43.0	7.1



Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
KOTAK MAHINDRA	2225.6	1.0	32.4	32.4	1.9	100.0
COFORGE LTD	7377.5	-0.2	50.1	60.2	26.0	99.2
L&T FINANCE LTD	167.66	-3.1	51.4	67.0	5.4	98.1
AVENUE SUPERMART	4366.8	-0.2	37.0	62.3	25.7	96.3
MARICO LTD	715.45	0.7	32.5	38.6	14.2	94.5

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MANAPPURAM FINAN	231.27	1.9	11.7	64.2	2.7	1.3
ICICI BANK LTD	1428.8	1.7	14.4	46.1	9.3	2.3
ADANI GREEN ENER	941	3.1	48.3	74.3	46.9	2.7
NBCC INDIA LTD	98.64	3.3	40.2	65.4	38.6	3.5
CENTRAL DEPOSITO	1339.1	0.6	31.9	58.3	31.2	3.7



Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
SUPREME INDS LTD	3635.1	4.5	9062	1784	5.1
SIEMENS LTD	2916.5	2.9	14187	3456	4.1
HINDUSTAN AERONA	4426.3	5.5	118375	32172	3.7
CUMMINS INDIA	2920.6	2.1	5354	1623	3.3
TORRENT PHARMA	3335	3.0	4115	1278	3.2

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
HUDCO LTD	226.38	2.8	5059	8062	1.6
PIDILITE INDS	3042.8	1.0	1746	2556	1.5
KEI INDUS LTD	2999.9	1.1	2581	3339	1.3
PETRONET LNG LTD	310.3	0.3	2627	2865	1.1
ASHOK LEYLAND	227.46	1.1	3577	3877	1.1



Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
SYNGENE INTERNAT	616.95	-2.1	13180	13180	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
SYNGENE INTERNAT	616.95	-2.1	5557	5557	100.0
RBL BANK LTD	207.1	10.1	9763	10209	95.6
HFCL LTD	81.85	0.9	4021	4763	84.4



Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Chg (%) Total Call Vol		Relative to Highest CV
N	E FOOTNOTE				

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
TATA TECHNOLOGIE	705.60	1.8	6373	6898	92.4



Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
SYNGENE INTERNAT	616.95	-2.1	13180	3194	4.1
ACC LTD	1925.1	-0.7	11173	5207	2.1
SHRIRAM FINANCE	622	-5.1	17745	8271	2.1
TVS MOTOR CO LTD	2793.1	2.0	7058	3683	1.9
CYIENT LTD	1181.7	0.9	5737	3181	1.8

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
RBL BANK LTD	207.1	10.1	9763	3416	2.9
SYNGENE INTERNAT	616.95	-2.1	5557	2012	2.8
CYIENT LTD	1181.7	0.9	3952	2210	1.8
SHRIRAM FINANCE	622	-5.1	9148	5158	1.8
ULTRATECH CEMENT	12114	-1.0	15040	8598	1.7



Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
RBL BANK LTD	207.1	10.1	77376	11798	6.6
SHRIRAM FINANCE	622	-5.1	93056	21762	4.3
L&T FINANCE LTD	167.66	-3.1	25558	6127	4.2
ADITYA BIRLA FAS	273.8	3.7	20787	5859	3.5
TVS MOTOR CO LTD	2793.1	2.0	27230	8500	3.2

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
RBL BANK LTD	207.1	10.1	35910	5731	6.3
SHRIRAM FINANCE	622	-5.1	44658	12002	3.7
ADITYA BIRLA FAS	273.8	3.7	10546	3103	3.4
L&T FINANCE LTD	167.66	-3.1	11115	3331	3.3
ULTRATECH CEMENT	12114	-1.0	57825	19951	2.9



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	1507800	9.7%	2370	2600	2415600	9.7%	INFY	1500	2216000	1.2%	1482	1200	1528000	-19.0%
ADANIPORTS	1300	1030000	7.4%	1210	1200	703200	-0.8%	ПС	450	5182400	4.9%	429	430	2105600	0.3%
APOLLOHOSP	7200	93875	2.2%	7045	7000	41000	-0.6%	JSWSTEEL	1220	496800	15.7%	1054	1000	536625	-5.2%
ASIANPAINT	2500	387000	1.9%	2452	2300	279200	-6.2%	KOTAKBANK	2200	521600	-1.2%	2226	2200	699200	-1.2%
AXISBANK	1300	1898125	9.0%	1193	1200	1213750	0.6%	LT	3300	497400	-0.8%	3327	3300	459450	-0.8%
BAJAJ-AUTO	8400	94200	3.8%	8096	8000	51900	-1.2%	M&M	3000	384825	2.4%	2931	2800	304150	-4.5%
BAJAJFINSV	2100	997000	2.5%	2050	2000	327500	-2.4%	MARUTI	12000	337900	1.3%	11846	11000	213200	-7.1%
BAJFINANCE	10000	429750	10.0%	9093	9000	386125	-1.0%	NESTLEIND	2500	453000	3.9%	2406	2400	136400	-0.2%
BEL	310	6244350	1.6%	305	290	3858900	-4.9%	NTPC	370	6763500	2.4%	362	380	1938000	5.1%
BHARTIARTL	1900	1068750	4.3%	1822	1700	913900	-6.7%	ONGC	260	3468850	3.8%	251	250	2009700	-0.2%
BPCL	320	1558800	3.2%	310	290	1749600	-6.5%	POWERGRID	320	1555200	3.7%	309	320	1546200	3.7%
BRITANNIA	5500	52900	1.3%	5429	5000	27700	-7.9%	RELIANCE	1400	7450500	2.3%	1369	1300	5429000	-5.0%
CIPLA	1600	320450	2.9%	1555	1300	187200	-16.4%	SBILIFE	1800	444000	3.7%	1736	1700	376500	-2.1%
COALINDIA	400	2946300	0.7%	397	450	2147250	13.3%	SBIN	820	3784500	0.3%	817	800	4269750	-2.1%
DRREDDY	1200	611875	0.1%	1199	1200	321875	0.1%	SHRIRAMFIN	700	2636250	12.5%	622	600	894750	-3.5%
EICHERMOT	5700	160125	1.4%	5622	5300	131075	-5.7%	SUNPHARMA	1900	1197700	3.2%	1842	1800	239050	-2.3%
GRASIM	2800	156250	1.7%	2753	2500	95750	-9.2%	TATACONSUM	1300	510720	12.5%	1155	1100	462840	-4.8%
HCLTECH	1600	1085350	3.3%	1549	1200	759150	-22.5%	TATAMOTORS	700	3040400	4.8%	668	650	2140600	-2.7%
HDFCBANK	2000	2652650	4.2%	1920	1900	2102650	-1.1%	TATASTEEL	150	14938000	5.6%	142	140	10912000	-1.5%
HDFCLIFE	720	1437700	1.3%	711	700	599500	-1.5%	TCS	3500	721175	1.6%	3444	3400	419475	-1.3%
HEROMOTOCO	4200	324900	7.4%	3912	3900	176100	-0.3%	TECHM	1500	664200	2.6%	1462	1400	438600	-4.2%
HINDALCO	630	1346800	0.2%	629	600	1251600	-4.6%	TITAN	3400	208425	0.9%	3369	3000	141400	-11.0%
HINDUNILVR	2500	1456500	7.8%	2319	2200	584100	-5.1%	TRENT	6000	267800	15.2%	5210	4500	252500	-13.6%
ICICIBANK	1450	2365300	1.5%	1429	1400	3206700	-2.0%	ULTRACEMCO	13000	185500	7.3%	12114	12000	125600	-0.9%
INDUSINDBK	1000	1480500	20.4%	831	800	1320000	-3.7%	WIPRO	250	6507000	4.0%	241	240	3051000	-0.2%

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**

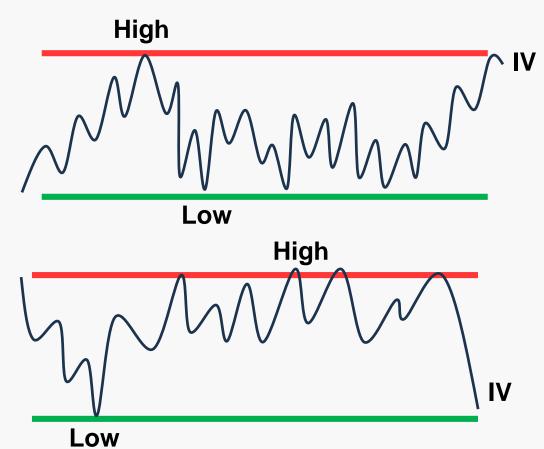
*ATM IV is the midpoint of the IV for the ATM call and put respectively



- 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.

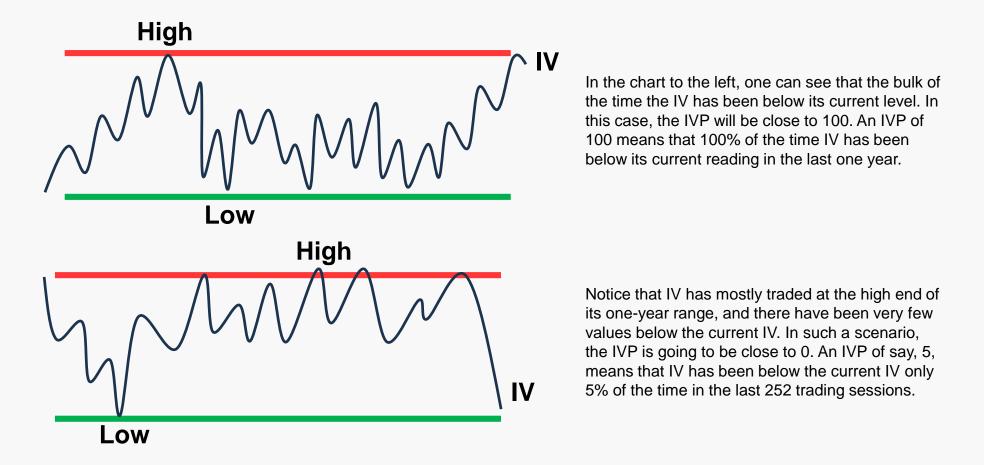
In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

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.





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