



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,522	0.8% ▼
Open Interest (OI)	1,85,24,475	6.5% ▼
Change in OI (abs)	1,85,24,475	12,86,550 ▼
Premium / Discount (Abs)	35	2 ▼
Inference	Long Unwinding	

Bank Nifty Futures

	Value	Change
Most recent settlement	51,273	0.8% ▼
Open interest (OI)	43,79,520	0.6% ▲
Change in OI (abs)	43,79,520	25,650 ▲
Premium / Discount (Abs)	64	7 ▲
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	13.47	0.2 ▼
Nifty ATM IV (%)	15.54	0.1 ▲
Bank Nifty ATM IV (%)	20.54	3.4 ▲
PCR (Nifty)	0.92	0.12 ▼
PCR (Bank Nifty)	0.88	0.15 ▼

The Long Ratio for FII Index Futures has risen to **35.5%**, up from **32.9 %** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NCC	2,07,16,025	15.0%	207.92	1.4%
ASHOKLEY	6,58,22,500	14.1%	213.76	2.0%
CAMS	17,62,500	10.4%	3674.95	0.5%
CGPOWER	1,04,74,075	8.4%	636.95	1.5%
NYKAA	3,79,04,550	5.1%	172.49	1.8%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BHEL	9,28,67,250	12.6%	210.9	-1.4%
RAMCOCEM	67,72,800	10.6%	854.05	-1.6%
DELHIVERY	1,08,79,350	10.1%	254.32	-1.2%
NHPC	8,86,40,000	10.0%	79.39	-2.3%
EXIDEIND	2,77,59,600	8.9%	359.35	-0.1%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KPITTECH	23,12,000	-29.8%	1368.2	2.2%
DALBHARAT	25,36,875	-10.9%	1760.8	0.6%
CHAMBLFERT	85,51,900	-8.7%	616.45	0.3%
KALYANKJIL	1,58,83,625	-7.9%	472.7	0.6%
INDUSINDBK	3,88,45,000	-7.8%	657.65	2.7%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
LTTS	1,82,400	-44.0%	4512.85	-2.5%
JKCEMENT	98,875	-36.8%	4713.15	-0.6%
IDFCFIRSTB	45,32,32,500	-11.7%	57.05	-0.7%
APOLLOTYRE	1,07,21,900	-11.6%	428.55	-0.6%
CHOLAFIN	1,20,76,875	-10.4%	1522.75	-0.5%

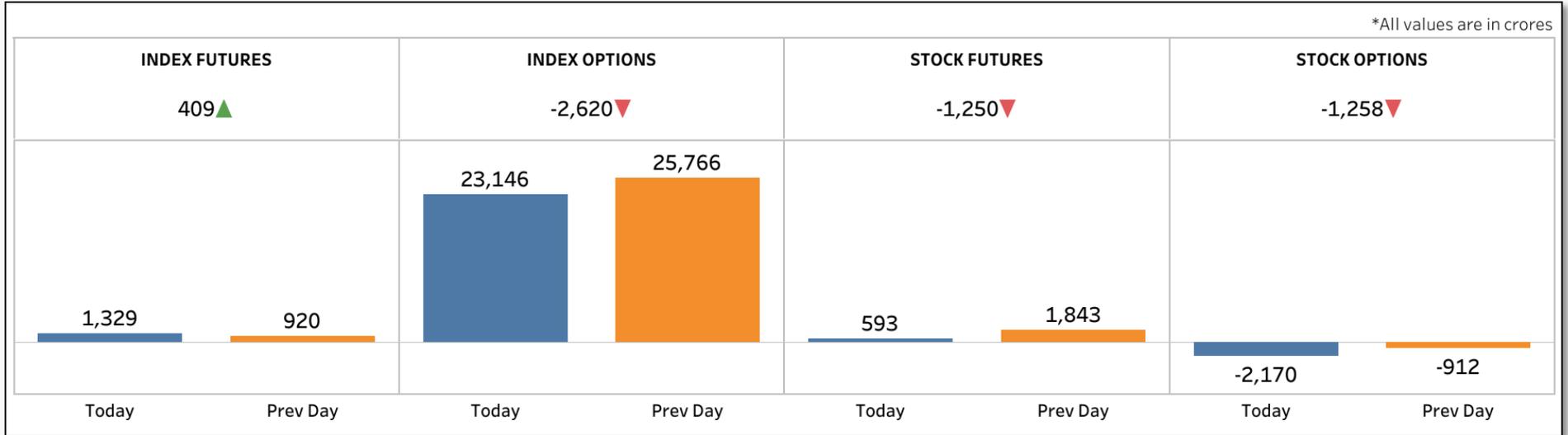
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

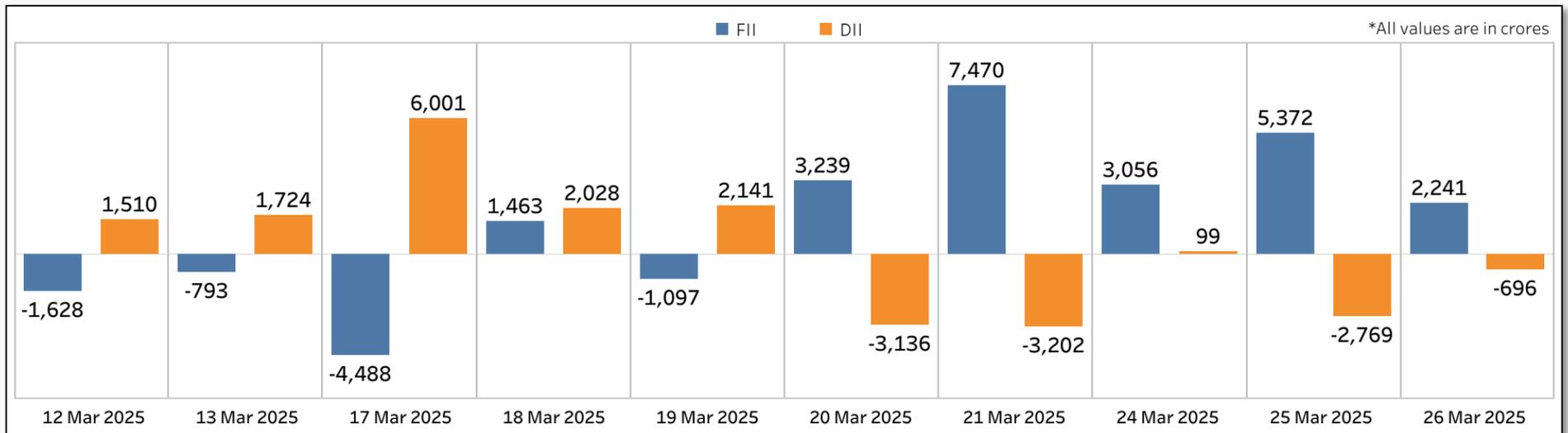
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
40,904 ▲	1,979 ▲	-23,650 ▼	-14,027 ▼	108 ▲	9,971 ▲	-23,510 ▼	-22,441 ▼
76,179	6,871	83,100	10,274	-36	1,854	2,414	-5,119
35,275	4,892	106,750	24,301	-144	-8,117	25,924	17,322
Net O/S 126,628	Net O/S -61,014	Net O/S 196,803	Net O/S 1,740,482	Net O/S 101	Net O/S 60,884	Net O/S 60,118	Net O/S -3,744,133
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-210,828 ▼	7,200 ▲	2,014 ▲	15,858 ▲	169,818 ▲	-19,150 ▼	45,147 ▲	20,610 ▲
-47,298	2,846	-97,856	-6,195	-28,844	-11,571	12,343	1,040
163,530	-4,354	-99,870	-22,053	-198,662	7,579	-32,804	-19,570
Net O/S -72,849	Net O/S 36,663	Net O/S -39,095	Net O/S 1,820,677	Net O/S -53,880	Net O/S -36,533	Net O/S -217,827	Net O/S 182,974
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

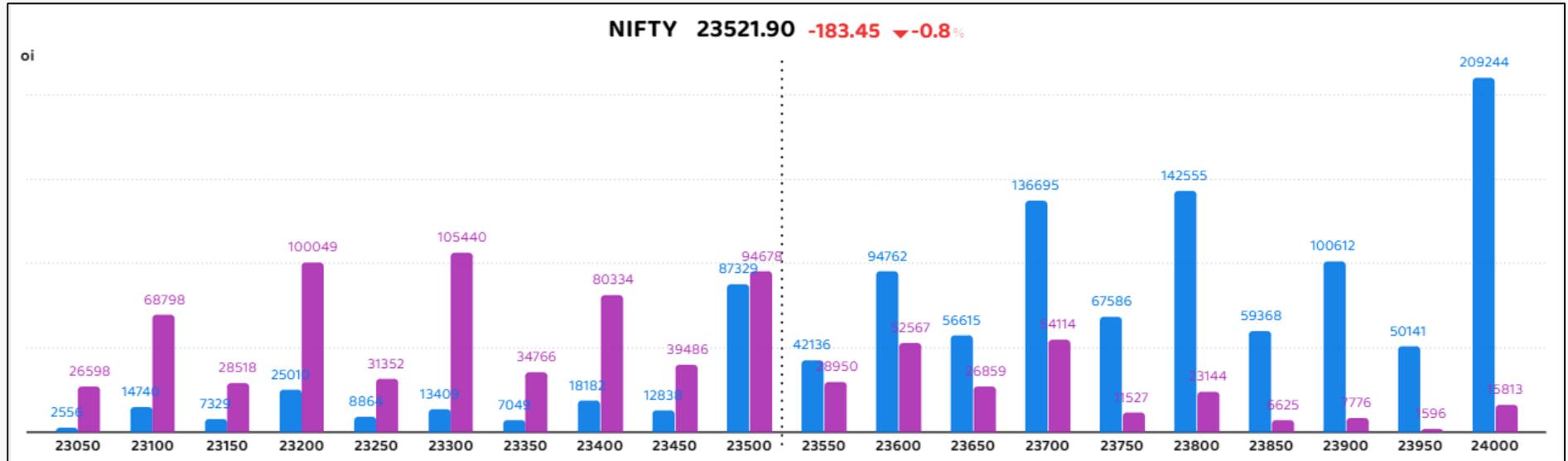


DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 24000 Call and the 23300 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 52000 Call and the 51000 Put saw the most amount of open interest.

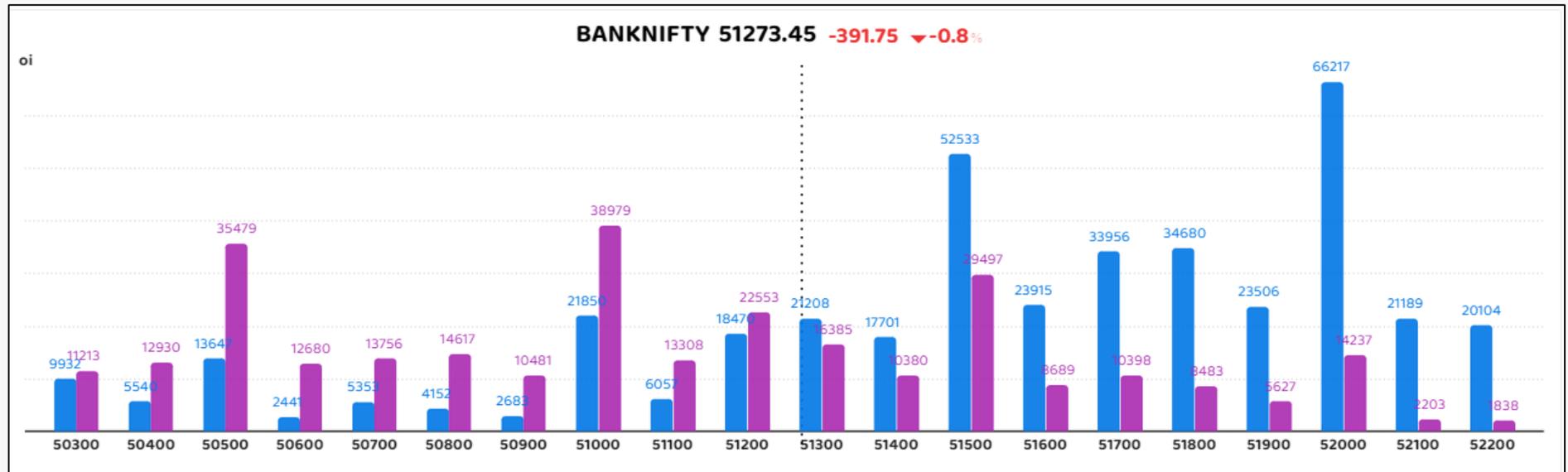
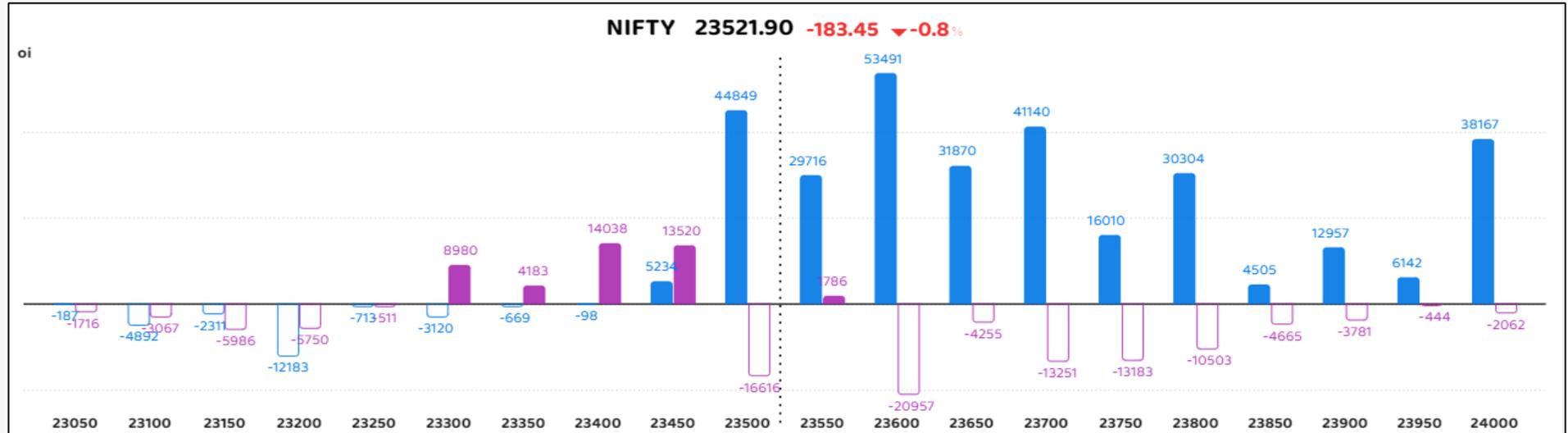


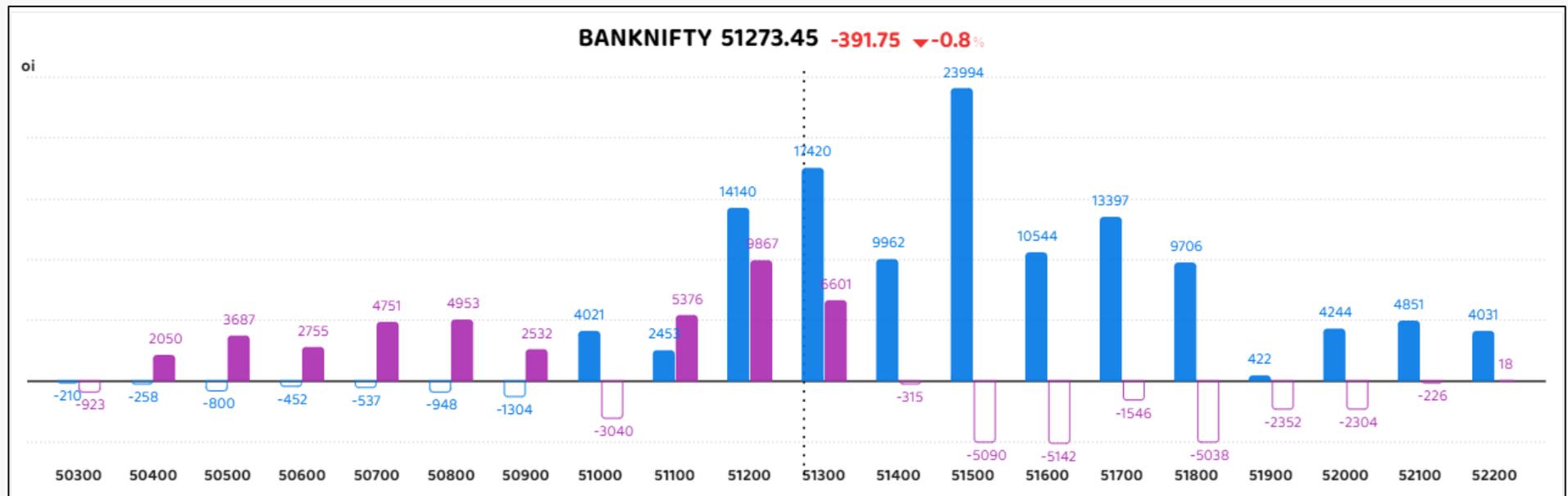
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23600 Call and the 23600 Put



For the Bank Nifty, the biggest open interest changes were seen at the 51500 Call & the 51200 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
YES BANK LTD	16.96	-0.4	55.3	55.3	29.4	100.0
DIXON TECHNOLOGI	13260.4	-2.7	51.6	51.6	1.8	100.0
JK CEMENTS LTD	4712.45	-0.8	41.3	42.0	5.9	98.1
TITAGARH RAIL SY	803	-1.2	59.9	60.3	45.3	97.4
JIOFIN IS	222.67	-2.1	43.3	44.0	20.2	96.9

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
CDSL IS	1181.2	-2.4	33.3	53.8	31.2	9.3
COMPUTER AGE MAN	3684.55	0.7	32.3	54.3	30.0	9.7
ADANI PORTS AND	1181.6	-0.1	31.4	99.7	23.2	10.7
HDFC LIFE INSURA	668.4	-0.7	27.7	80.6	19.6	13.3
GMR AIRPORTS LTD	76.24	0.7	33.4	69.5	25.4	18.3

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
YES BANK LTD	16.96	-0.4	55.3	55.3	29.4	100.0
DIXON TECHNOLOGI	13260.4	-2.7	51.6	51.6	1.8	100.0
NCC LTD	208.3	1.7	53.4	53.4	32.4	100.0
AU SMALL FINANCE	573.75	2.8	50.6	116.2	1.7	99.6
JIO FINANCIAL SE	222.67	-2.1	43.3	44.0	20.2	99.3

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
SIEM IS	5418.25	5.8	25.4	47.6	24.1	2.6
SBIN IS	764	-1.1	21.0	55.4	3.1	9.7
CAMS IS	3684.55	0.7	32.3	54.3	30.0	10.2
CENTRAL DEPOSITO	1181.2	-2.4	33.3	53.8	31.2	11.3
MRF IS	114321.2	0.0	19.9	35.6	6.7	24.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
INDIAN RENEWABLE	162.92	-4.1	23371	7843	3.0
MACROTECH DEVELO	1197.35	-1.0	16952	6081	2.8
YES BANK LTD	16.96	-0.4	2438	880	2.8
PAGE INDUSTRIES	42261.15	-1.5	2869	1050	2.7
TATA TECHNOLOGIE	700.1	0.3	6641	2502	2.7

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
MAHANAGAR GAS LT	1348.3	-1.3	3094	6243	2.0
MAX HEALTHCARE I	1122.55	-4.3	8492	14566	1.7
TUBE INVESTMENTS	2710.7	-2.2	4487	7144	1.6
DEEPAK NITRITE	2016.7	-1.0	4343	6852	1.6
PHOENIX MILLS	1641.55	-1.0	1009	1322	1.3

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
JINDAL STAINLESS	595.15	1.2	4436	4466	99.3
MAX HEALTHCARE I	1122.55	-4.3	5593	5701	98.1
SOLAR INDUSTRIES	10981.4	1.9	2490	2920	85.3
TATA TECHNOLOGIE	700.1	0.3	4722	5604	84.3

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
HINDUSTAN AERONA	4128.3	2.9	38058	38058	100.0
COMPUTER AGE MAN	3684.55	0.7	7809	7809	100.0
TATA TECHNOLOGIE	700.1	0.3	2929	3134	93.5
BSE LTD	4474.7	-3.8	36375	41293	88.1
INTERGLOBE AVIAT	5025.15	0.4	17453	20109	86.8

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
SIEM IS	5418.25	5.8	443550	443550	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
SIEMENS LTD	5418.25	5.8	185843	185843	100.0

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
JINDAL STAINLESS	595.15	1.2	4436	2311	1.9
COMPUTER AGE MAN	3684.55	0.7	11082	6175	1.8
MAX HEALTHCARE I	1122.55	-4.3	5593	3383	1.7
DIXON TECHNOLOGI	13260.4	-2.7	36524	23282	1.6
TATA TECHNOLOGIE	700.1	0.3	4722	3149	1.5

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
SIEMENS LTD	5418.25	5.8	21862	7495	2.9
INDIAN RENEWABLE	162.92	-4.1	6030	2700	2.2
SHREE CEMENT	29931.1	1.3	1876	907	2.1
MAX HEALTHCARE I	1122.55	-4.3	4672	2523	1.9
MANAPPURAM FINAN	232.22	-2.0	9097	5020	1.8

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
SIEMENS LTD	5418.25	5.8	443550	45299	9.8
ABB INDIA LTD	5523.7	2.0	71812	20295	3.5
HINDUSTAN AERONA	4128.3	2.9	336447	107143	3.1
TRENT LTD	5321.95	2.6	244569	85821	2.8
BHARTI AIRTEL	1738.55	0.5	139776	74411	1.9

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SIEMENS LTD	5418.25	5.8	185843	20824	8.9
HINDUSTAN AERONA	4128.3	2.9	207922	60726	3.4
ABB INDIA LTD	5523.7	2.0	27589	10911	2.5
DR REDDY'S LABS	1164.6	-1.1	23013	9685	2.4
TRENT LTD	5321.95	2.6	106099	45354	2.3

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	741000	12.4%	2313	2600	750900	12.4%	INFY	1640	1572400	2.5%	1599	1560	1010800	-2.5%
ADANIPTS	1200	1162400	1.6%	1182	1200	878800	1.6%	ITC	420	4588800	3.1%	407	400	3750400	-1.8%
APOLLOHOSP	6900	67625	5.8%	6520	6300	49625	-3.4%	JSWSTEEL	1120	639225	6.0%	1056	1000	508275	-5.3%
ASIANPAINT	2500	492800	7.6%	2323	2000	297000	-13.9%	KOTAKBANK	2200	1067200	2.6%	2145	2100	866000	-2.1%
AXISBANK	1100	1459375	0.3%	1096	1100	1016250	0.3%	LT	3250	712500	-5.7%	3445	3100	459150	-10.0%
BAJAJ-AUTO	8000	125550	0.3%	7977	7500	162825	-6.0%	LTIM	4800	187500	3.9%	4620	4400	124500	-4.8%
BAJAJFINSV	1860	1091000	-4.3%	1943	1900	718000	-2.2%	M&M	2800	550375	2.1%	2742	2700	362250	-1.5%
BAJFINANCE	9600	566000	8.3%	8866	8500	372625	-4.1%	MARUTI	11800	253550	0.6%	11734	11500	115600	-2.0%
BHARTIARTL	1720	2697525	-1.1%	1739	1700	2087150	-2.2%	NESTLEIND	2300	131000	2.5%	2243	2100	224000	-6.4%
BPCL	270	1.4E+07	-1.1%	273	270	8325000	-1.1%	NTPC	340	10921500	-4.1%	355	340	5632500	-4.1%
BRITANNIA	4900	101400	1.0%	4850	4100	79800	-15.5%	ONGC	235	10321850	-2.0%	240	235	5497800	-2.0%
CIPLA	1580	1035125	7.0%	1476	1240	480350	-16.0%	POWERGRID	280	6237000	-3.7%	291	280	3243600	-3.7%
COALINDIA	395	4431000	0.1%	395	390	1954050	-1.2%	RELIANCE	1270	5017500	-0.2%	1273	1270	2682000	-0.2%
DIVISLAB	6000	101400	2.8%	5839	4700	84900	-19.5%	SBLIFE	1500	505500	-2.7%	1541	1400	377625	-9.2%
DRREDDY	1200	1806875	3.0%	1165	1100	418125	-5.5%	SBIN	800	3422250	4.7%	764	750	2986500	-1.8%
EICHERMOT	5100	165550	-5.6%	5403	5000	226800	-7.5%	SUNPHARMA	1680	2032100	-4.5%	1759	1680	1006250	-4.5%
GRASIM	2420	255250	-6.3%	2582	2400	161750	-7.0%	TATACONSUM	1000	454632	4.2%	960	900	315552	-6.2%
HCLTECH	1640	305550	0.4%	1633	1400	688800	-14.3%	TATAMOTORS	720	3236750	1.7%	708	680	1486100	-4.0%
HDFCBANK	1760	3977050	-2.6%	1807	1760	1762750	-2.6%	TATASTEEL	159	17572500	2.0%	156	140	11203500	-10.1%
HDFCLIFE	710	1291400	6.2%	668	640	1788600	-4.2%	TCS	3700	684075	1.8%	3636	3500	564200	-3.7%
HEROMOTOCO	4000	523650	9.7%	3646	3200	186000	-12.2%	TECHM	1500	747600	5.9%	1416	1400	588000	-1.2%
HINDALCO	720	3911600	4.2%	691	650	1159200	-6.0%	TITAN	3200	661325	4.7%	3058	3050	216125	-0.2%
HINDUNILVR	2300	545700	2.4%	2246	2200	287100	-2.0%	ULTRACEMCO	10400	136050	-8.8%	11402	10400	78100	-8.8%
ICICIBANK	1350	1495200	1.1%	1336	1300	1966300	-2.7%	UPL	640	1517600	-1.9%	652	640	888880	-1.9%
INDUSINDBK	750	3143000	14.5%	655	600	1182000	-8.4%	WIPRO	300	6321000	12.2%	267	240	2964000	-10.2%

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**

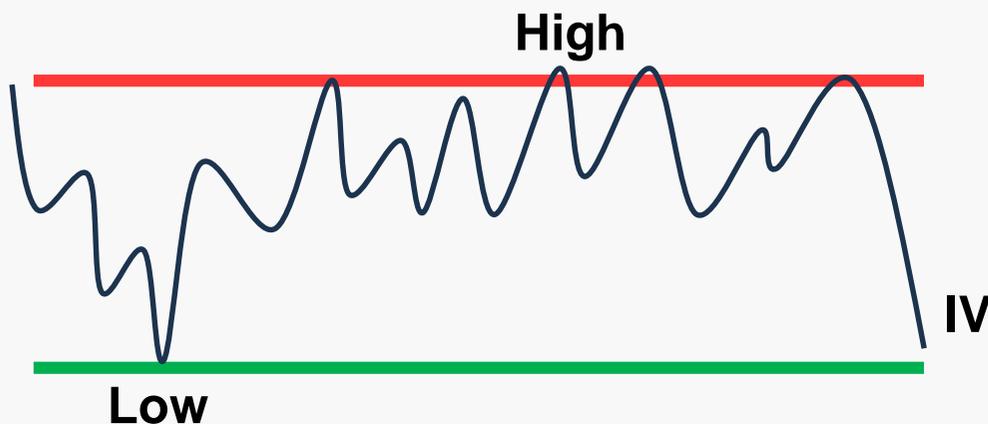
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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):** www.nseindia.com, 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

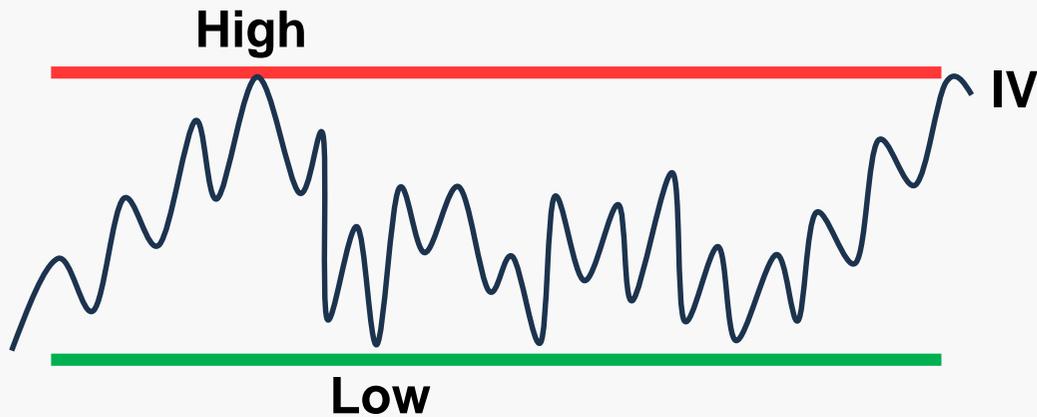


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

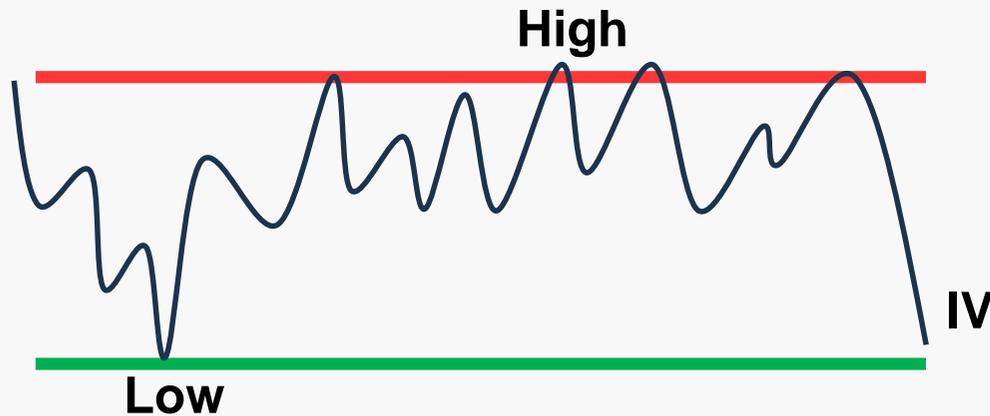


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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.

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 of India Point of Presence with Pension Fund 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 Parc, 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's price 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's price 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