



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,439	0.5%▲
Open Interest (OI)	1,45,22,400	0.7%▼
Change in OI (abs)	1,45,22,400	1,08,075▼
Premium / Discount (Abs)	107	49▼
Inference	Short Covering	

Bank Nifty Futures

	Value	Change
Most recent settlement	51,581	0.8%▲
Open interest (OI)	25,81,200	2.2%▼
Change in OI (abs)	25,81,200	57,180▼
Premium / Discount (Abs)	233	127▼
Inference	Short Covering	

Volatility Insights

	Value	Change
India VIX Index	13.72	0.1▼
Nifty ATM IV (%)	12.62	0.3▼
Bank Nifty ATM IV (%)	14.76	0.2▼
PCR (Nifty)	0.96	0.20▲
PCR (Bank Nifty)	0.94	0.07▲

The Long Ratio for FII Index Futures has **jump** to **32.3%**, up from **30.6 %** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PNBHOUSING	13,45,500	59.2%	922.2	5.0%
KALYANKJIL	1,62,31,600	28.9%	513.55	12.0%
HINDZINC	19,33,050	14.1%	463.6	1.6%
INOXWIND	49,02,000	7.2%	160.13	1.7%
PHOENIXLTD	15,34,750	7.1%	1650.6	3.0%

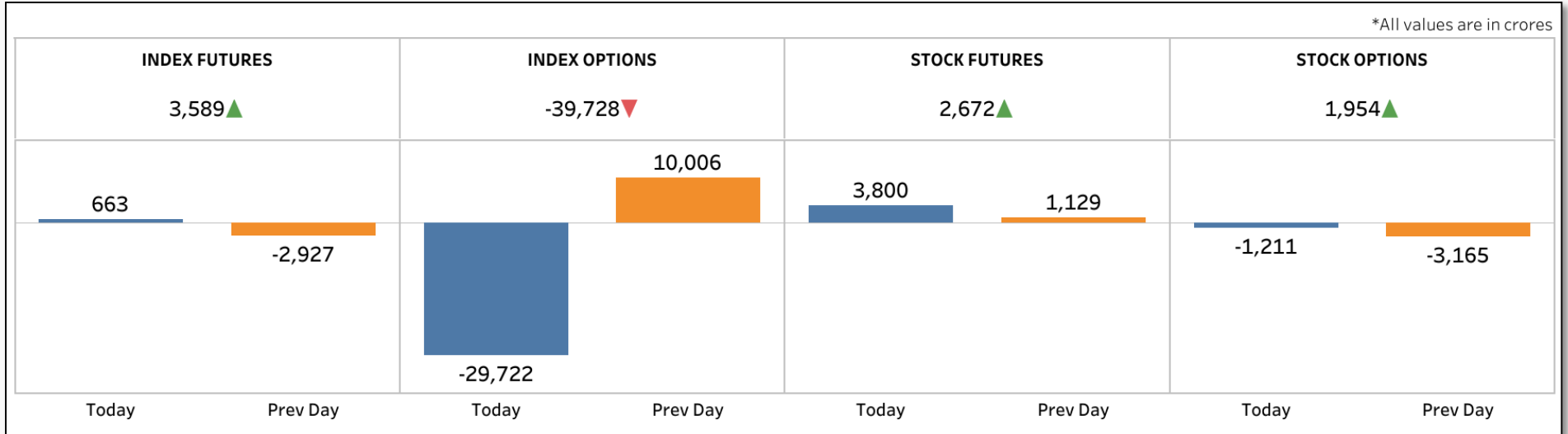
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
M&MFIN	2,23,82,000	13.3%	268.1	-3.3%
BEL	9,32,49,150	8.3%	284	-3.3%
DABUR	1,96,01,250	6.9%	497.15	-0.5%
ABB	31,41,875	4.8%	5342.15	-1.3%
CROMPTON	3,23,19,000	4.2%	341.15	-1.8%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
RECLTD	5,77,23,000	-15.2%	426.9	1.8%
MCX	23,27,400	-14.2%	5402.95	2.7%
ADANIEMT	1,73,90,400	-12.3%	2379.95	1.5%
ADANIPTS	2,28,38,800	-7.4%	1202.2	1.7%
BANKBARODA	13,77,99,675	-6.9%	232.83	1.2%

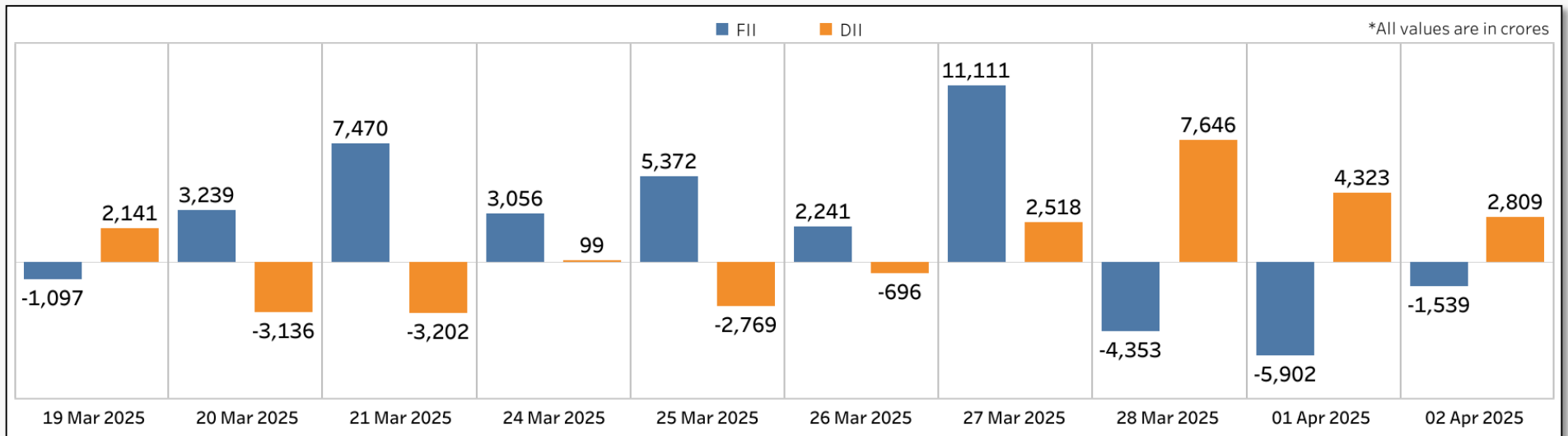
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
GAIL	10,61,56,550	-2.7%	184.61	-1.2%
RBLBANK	5,70,70,000	-2.0%	171.42	-3.1%
JIOFIN	13,82,30,400	-1.9%	230.38	-0.4%
MGL	56,62,800	-1.8%	1393.7	-0.1%
RELIANCE	13,61,35,000	-1.6%	1255.9	-0.3%

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

Daily Net Open Interest Change

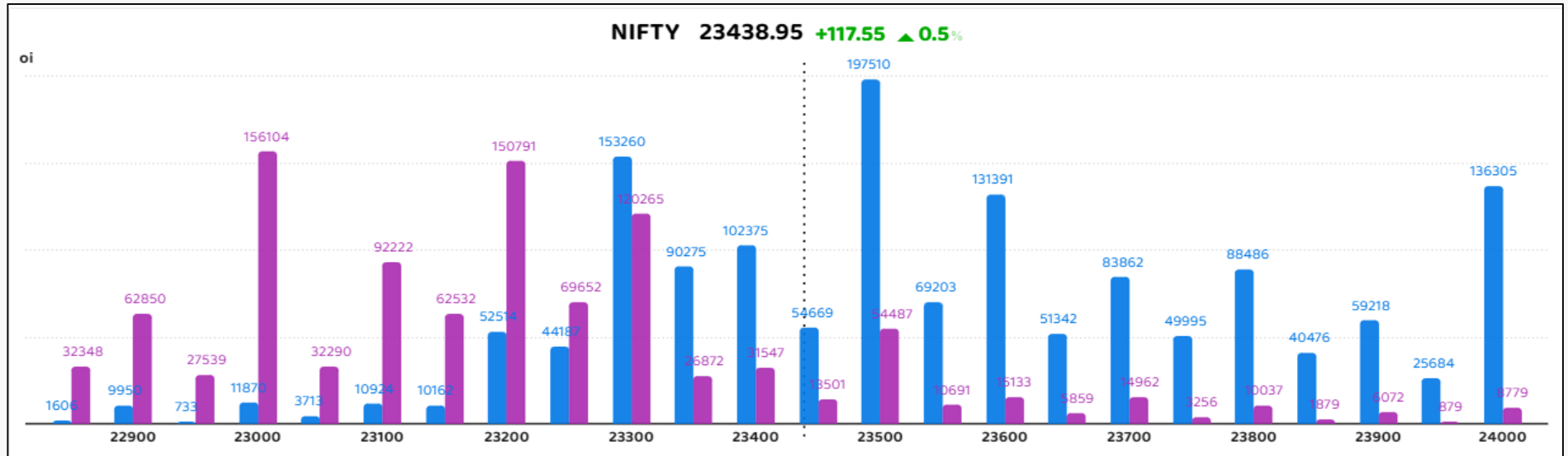


DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 23500 Call and the 23000 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.

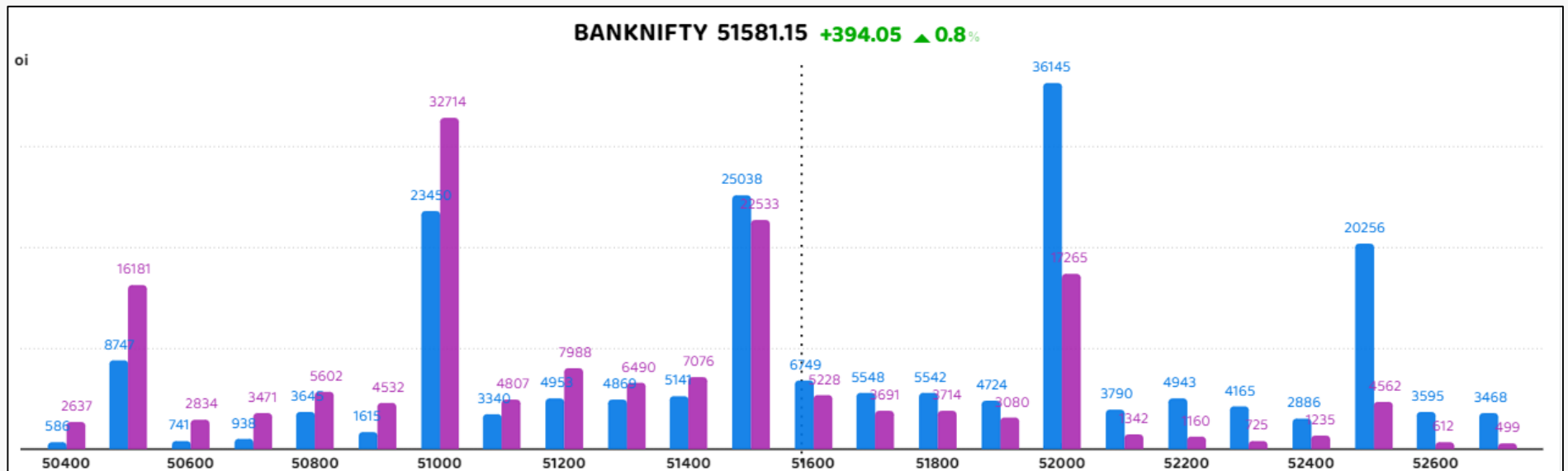
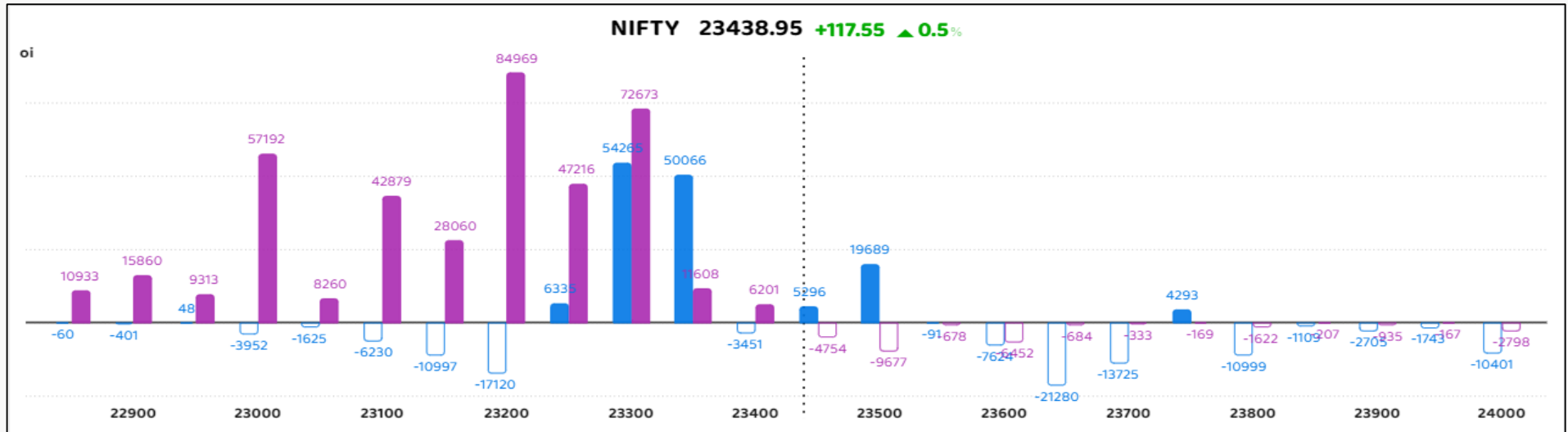


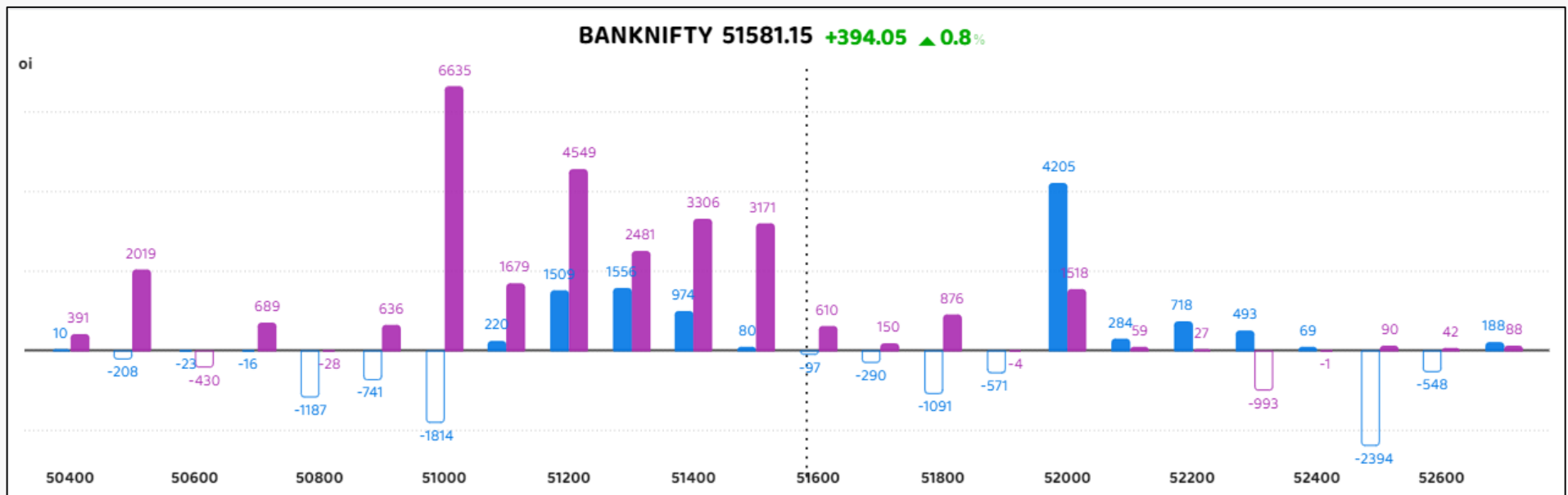
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23300 Call and the 23200 Put



For the Bank Nifty, the biggest open interest changes were seen at the 52000 Call & the 51000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
CESC LTD	153.91	0.6	49.7	49.7	31.2	100.0
PERSISTENT SYS	5317.5	2.0	44.7	45.0	26.9	98.2
DR REDDY'S LABS	1150	-0.2	34.1	35.3	14.4	94.1
LAURUS LABS LTD	609.05	1.7	41.5	44.8	16.1	88.5
DIXON TECHNOLOGI	13450.7	4.1	45.7	51.6	1.8	88.2

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
TATA TECHNOLOGIE	687.85	0.1	33.7	47.2	33.7	0.0
INDIAN RENEWABLE	161.42	0.5	51.7	69.2	51.7	0.0
SIEMENS LTD	5282.85	1.0	15.9	47.6	15.9	0.0
JINDAL STEEL & P	909.55	0.9	10.4	55.4	10.4	0.0
PATANJALI FOODS	1824.6	1.3	31.9	65.0	28.4	9.4

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
CESC LTD	153.91	0.6	49.7	49.7	31.2	100.0
PERSISTENT SYS	5317.5	2.0	44.7	45.0	26.9	99.8
DR REDDY'S LABS	1150	-0.2	34.1	35.3	14.4	99.4
INDRAPRASTHA GAS	202.94	0.8	53.6	59.1	22.8	99.0
HFCL LTD	81.75	1.2	55.0	61.5	33.2	97.9

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
TATA TECHNOLOGIE	687.85	0.1	33.7	47.2	33.7	0.0
INDIAN RENEWABLE	161.42	0.5	51.7	69.2	51.7	0.0
SIEMENS LTD	5282.85	1.0	15.9	47.6	15.9	0.0
JINDAL STEEL & P	909.55	0.9	10.4	55.4	10.4	0.0
ANGEL ONE LTD	2354.4	1.6	35.2	72.7	22.1	2.5

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
CENTRAL DEPOSITO	1221.45	2.0	24765	5690	4.4
TITAGARH RAIL SY	809.9	1.4	4522	1111	4.1
LIC INSURANCE CO	810.95	1.7	7110	1954	3.6
MACROTECH DEVELO	1218.45	5.3	11110	3220	3.5
HFCL LTD	81.75	1.2	5418	1672	3.2

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
GODREJ CONSUMER	1162.65	1.7	2125	3780	1.8
ESCORTS KUBOTA L	3228.4	0.3	5404	8713	1.6
GRANULES INDIA	483.15	0.1	2726	3374	1.2
ICICI BANK LTD	1331.25	1.0	24906	27923	1.1
SUPREME INDS LTD	3355.15	0.7	1203	1347	1.1

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
SIEMENS LTD	5282.85	1.0	39690	39690	100.0
VOLTAS LTD	1344.8	-0.5	28554	34182	83.5

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
BSE LTD	5654.85	3.5	34695	41293	84.0
VOLTAS LTD	1344.8	-0.5	13814	16517	83.6
MANAPPURAM FINAN	234.3	0.9	7552	9097	83.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
NO STOCK OPTION MET THE CRITERIA MENTIONED IN THE FOOTNOTE					

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
NO STOCK OPTION MET THE CRITERIA MENTIONED IN THE FOOTNOTE					

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
SIEMENS LTD	5282.85	1.0	39690	16551	2.4
M&M FIN SERVICES	268.65	-2.8	4757	3316	1.4
VOLTAS LTD	1344.8	-0.5	28554	19943	1.4
DELHIVERY LTD	259	-0.7	4813	3414	1.4
TATA ELXSI LTD	5229.95	3.2	6073	4344	1.4

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
SIEMENS LTD	5282.85	1.0	21508	9953	2.2
ESCORTS KUBOTA L	3228.4	0.3	4053	2151	1.9
TATA CONSUMER PR	1062.7	7.1	10644	6084	1.7
TATA ELXSI LTD	5229.95	3.2	3842	2242	1.7
M&M FIN SERVICES	268.65	-2.8	4394	3053	1.4

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
TATA CONSUMER PR	1062.7	7.1	97076	17633	5.5
BHARAT ELECTRON	282.4	-3.3	78433	39187	2.0
TORRENT PHARMA	3207.1	0.7	3919	1959	2.0
M&M FIN SERVICES	268.65	-2.8	7996	4329	1.8
SIEMENS LTD	5282.85	1.0	91196	53727	1.7

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
TATA CONSUMER PR	1062.7	7.1	48009	9187	5.2
M&M FIN SERVICES	268.65	-2.8	7745	2814	2.8
ESCORTS KUBOTA L	3228.4	0.3	8713	3734	2.3
SIEMENS LTD	5282.85	1.0	56369	25941	2.2
NESTLE INDIA LTD	2210.7	-1.0	17294	8357	2.1

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	1427700	9.7%	2369	2600	2443200	9.7%	INFY	1600	1988400	3.2%	1550	1480	3016800	-4.5%
ADANIPTS	1200	1485200	0.4%	1195	1200	1029200	0.4%	ITC	410	11158400	0.2%	409	400	3086400	-2.2%
APOLLOHOSP	7000	85750	4.0%	6732	6600	52250	-2.0%	JSWSTEEL	1100	810000	4.2%	1056	1000	488700	-5.3%
ASIANPAINT	2400	998800	4.0%	2307	2300	368200	-0.3%	KOTAKBANK	2200	997200	2.1%	2155	2000	1121600	-7.2%
AXISBANK	1100	2030625	1.4%	1084	1100	1185625	1.4%	LT	3500	619350	2.3%	3420	3500	385650	2.3%
BAJAJ-AUTO	8500	217500	5.3%	8073	8000	109950	-0.9%	M&M	2800	790825	6.2%	2638	2600	294000	-1.4%
BAJAJFINSV	2160	1514000	11.9%	1931	1800	417000	-6.8%	MARUTI	12000	258350	2.4%	11716	11000	117450	-6.1%
BAJFINANCE	9000	425625	3.8%	8669	8500	306125	-2.0%	NESTLEIND	2300	227000	4.0%	2211	2000	100200	-9.5%
BEL	300	1.2E+07	6.2%	282	280	4676850	-0.8%	NTPC	365	6331500	3.8%	352	360	2422500	2.3%
BHARTIARTL	1800	2312775	2.6%	1755	1700	852625	-3.1%	ONGC	260	17898650	3.7%	251	240	3520825	-4.2%
BPCL	300	2203200	4.6%	287	280	1728000	-2.4%	POWERGRID	300	3225600	4.6%	287	320	1438200	11.6%
BRITANNIA	5000	77800	-0.7%	5037	4800	89800	-4.7%	RELIANCE	1300	10801000	3.9%	1251	1300	2811500	3.9%
CIPLA	1500	815750	3.3%	1452	1400	455650	-3.6%	SBILIFE	1600	1021125	2.6%	1560	1460	145875	-6.4%
COALINDIA	420	3838800	5.7%	398	450	2450700	13.2%	SBIN	800	6641250	3.1%	776	800	4490250	3.1%
DRREDDY	1200	1136250	4.3%	1150	1100	560625	-4.3%	SHRIRAMFIN	700	1435500	9.5%	639	600	540750	-6.2%
EICHERMOT	5500	213150	2.7%	5356	5000	171675	-6.6%	SUNPHARMA	1740	739550	1.5%	1714	1600	555100	-6.6%
GRASIM	2920	137250	11.6%	2617	2500	123250	-4.5%	TATACONSUM	1100	790704	3.5%	1063	1000	716832	-5.9%
HCLTECH	1640	434700	7.4%	1528	1400	432600	-8.3%	TATAMOTORS	700	5847600	4.2%	672	670	2660900	-0.3%
HDFCBANK	1900	2533850	5.7%	1797	1800	2051500	0.2%	TATASTEEL	160	24194500	3.4%	155	150	10791000	-3.0%
HDFCLIFE	700	1730300	0.6%	696	700	591800	0.6%	TCS	3700	788550	4.4%	3544	3300	493500	-6.9%
HEROMOTOCO	4000	413700	5.7%	3784	3600	168750	-4.9%	TECHM	1500	709800	5.4%	1423	1400	405600	-1.6%
HINDALCO	700	2944200	5.9%	661	600	866600	-9.3%	TITAN	3100	659925	0.1%	3098	3100	418250	0.1%
HINDUNILVR	2300	918600	2.8%	2238	2100	488100	-6.2%	TRENT	6000	276200	5.6%	5683	5000	232800	-12.0%
ICICIBANK	1400	1803900	5.2%	1331	1300	1992900	-2.3%	ULTRACEMCO	12500	118000	11.1%	11251	11000	55250	-2.2%
INDUSINDBK	800	2516500	13.9%	702	600	1709500	-14.6%	WIPRO	300	4689000	13.8%	264	240	2421000	-9.0%

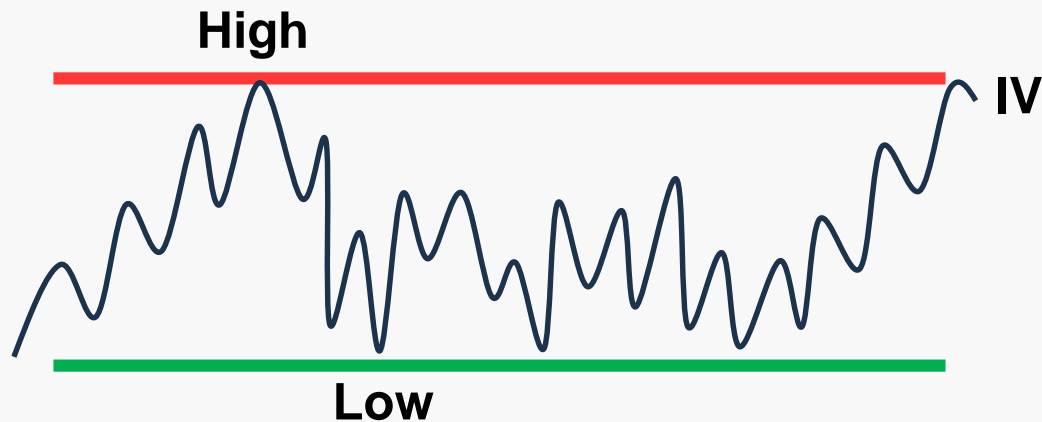
If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green
 If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike 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**

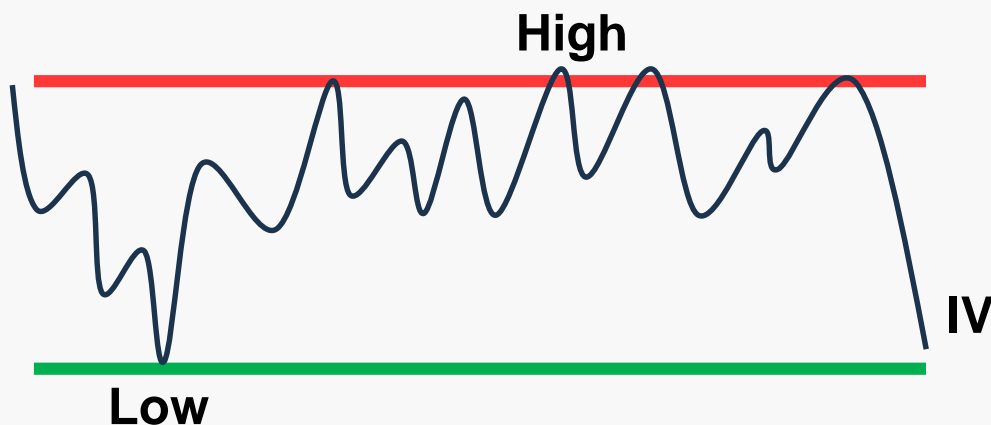
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

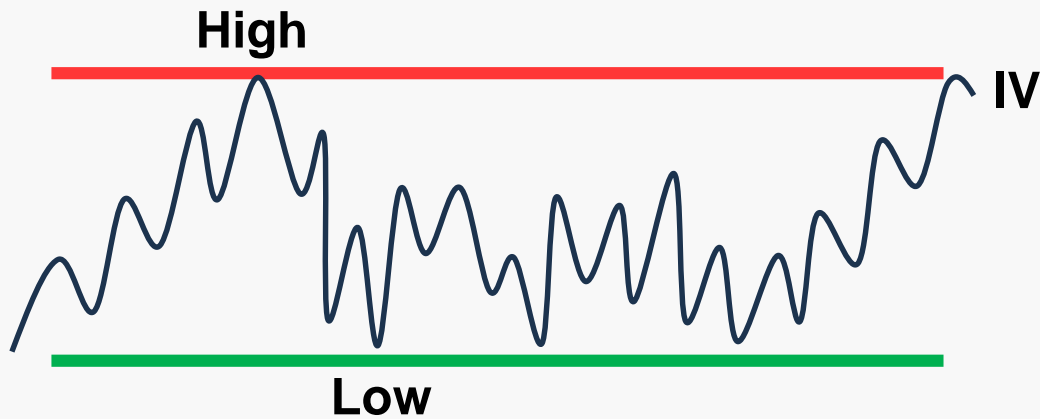


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

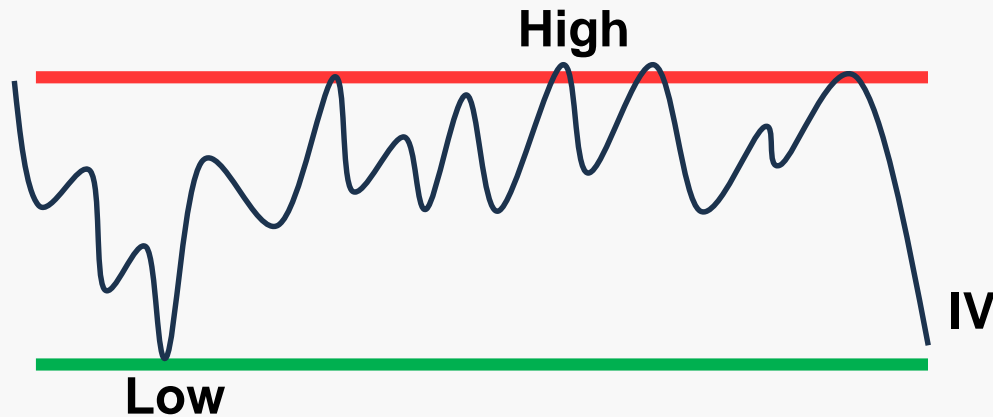


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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.

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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.

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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