



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	23,699	1.4%▲
Open Interest (OI)	1,90,12,500	2.0%▲
Change in OI (abs)	1,90,12,500	3,72,225▲
Premium / Discount (Abs)	41	12▲
<b>Inference</b>	<b>Long Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	50,594	2.3%▲
Open interest (OI)	43,90,020	1.2%▼
Change in OI (abs)	43,90,020	51,330▼
Premium / Discount (Abs)	0	49▲
<b>Inference</b>	<b>Short Covering</b>	

## Volatility Insights

	Value	Change
India VIX Index	13.7	1.1▲
Nifty ATM IV (%)	15.97	5.6▲
Bank Nifty ATM IV (%)	18.41	6.8▲
PCR (Nifty)	1.22	0.07▲
PCR (Bank Nifty)	1.24	0.02▼

The Long Ratio for FII Index Futures has risen to **32.1%**, up from **317. %** in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
APOLLOTYRE	1,30,28,800	13.6%	433.9	2.0%
MANAPPURAM	4,86,12,000	9.1%	240.69	3.0%
MPHASIS	47,16,800	8.4%	2486.45	2.4%
DIXON	13,13,000	7.2%	14609.9	4.0%
KPITTECH	33,30,400	6.1%	1383.35	4.6%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
JSL	71,84,250	15.1%	592.65	-5.2%
DELHIVERY	95,70,900	7.7%	259.9	-1.4%
CGPOWER	92,96,675	7.6%	634.55	-1.1%
BSE	55,40,125	4.5%	4642.85	-2.5%
MUTHOOTFIN	36,51,175	4.3%	2357.2	-0.3%

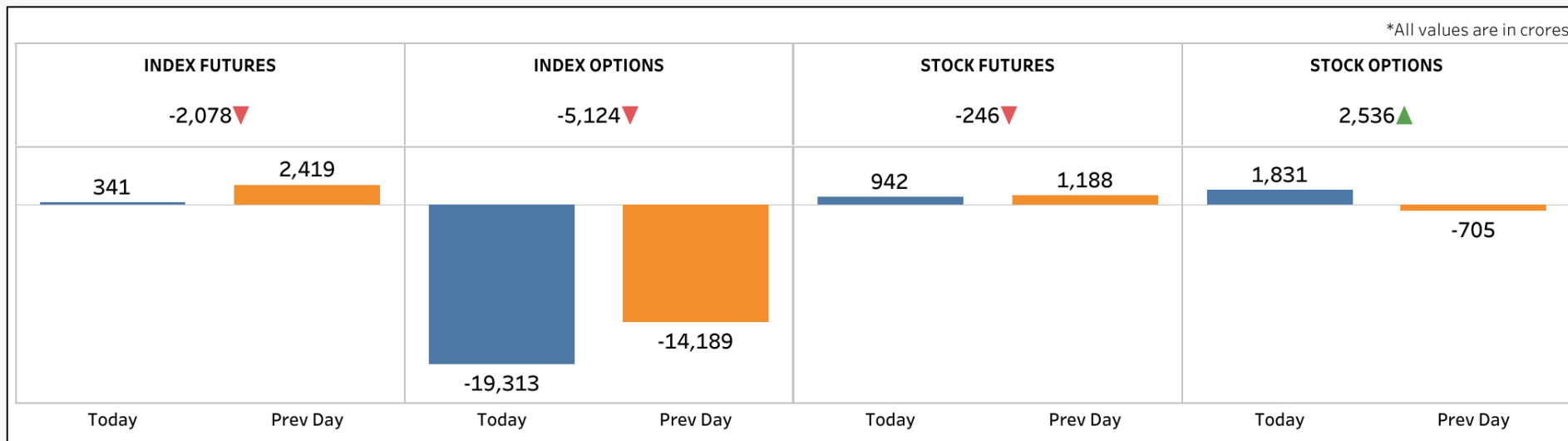
Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CDSL	1,12,26,600	-15.6%	1233.45	1.6%
NBCC	2,93,53,800	-13.4%	85.38	1.7%
LTF	8,25,06,842	-11.0%	158.58	3.7%
POONAWALLA	2,02,97,100	-9.4%	347	4.0%
POLYCAB	26,93,000	-9.3%	5041.05	0.7%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
JKCEMENT	2,51,625	-28.6%	4736.25	-2.0%
LTTS	3,69,400	-28.1%	4590.85	-1.8%
ATGL	58,02,425	-15.2%	625.4	-0.8%
CAMS	17,20,625	-14.2%	3808.45	-0.1%
INDUSINDBK	4,51,21,000	-12.0%	672.9	-2.6%

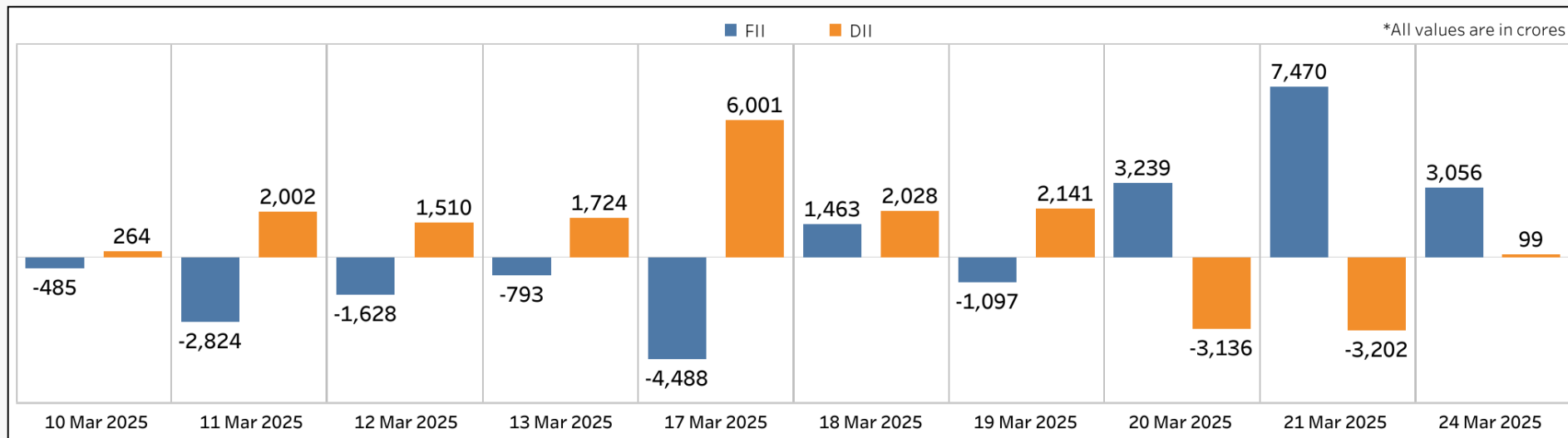
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix



## Daily Net Open Interest Change

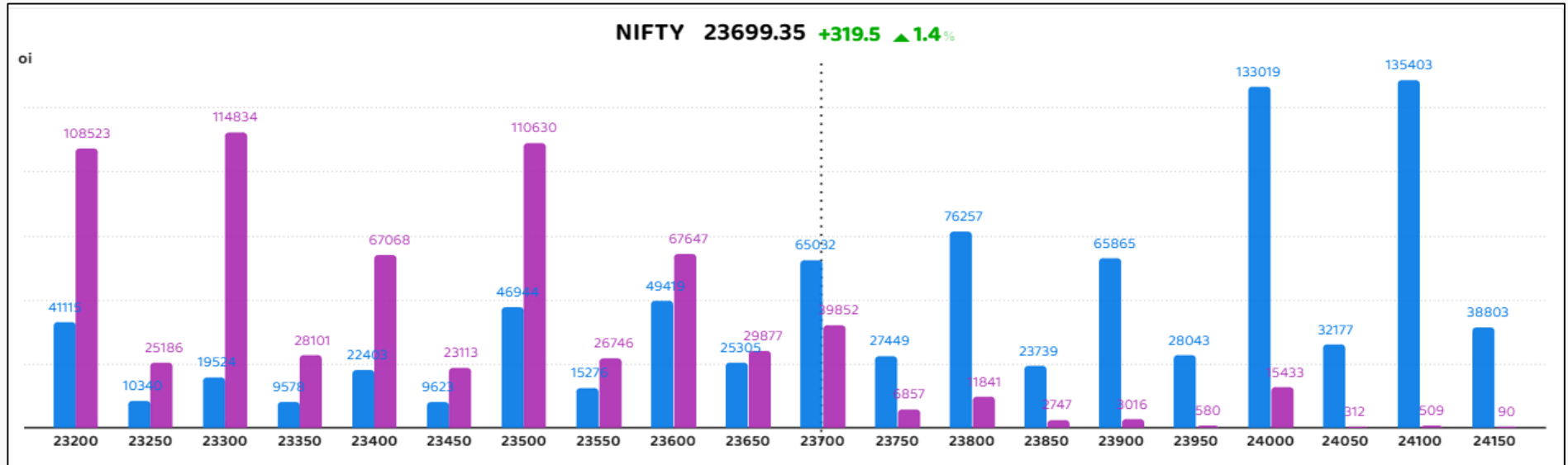


## DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 24100 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.

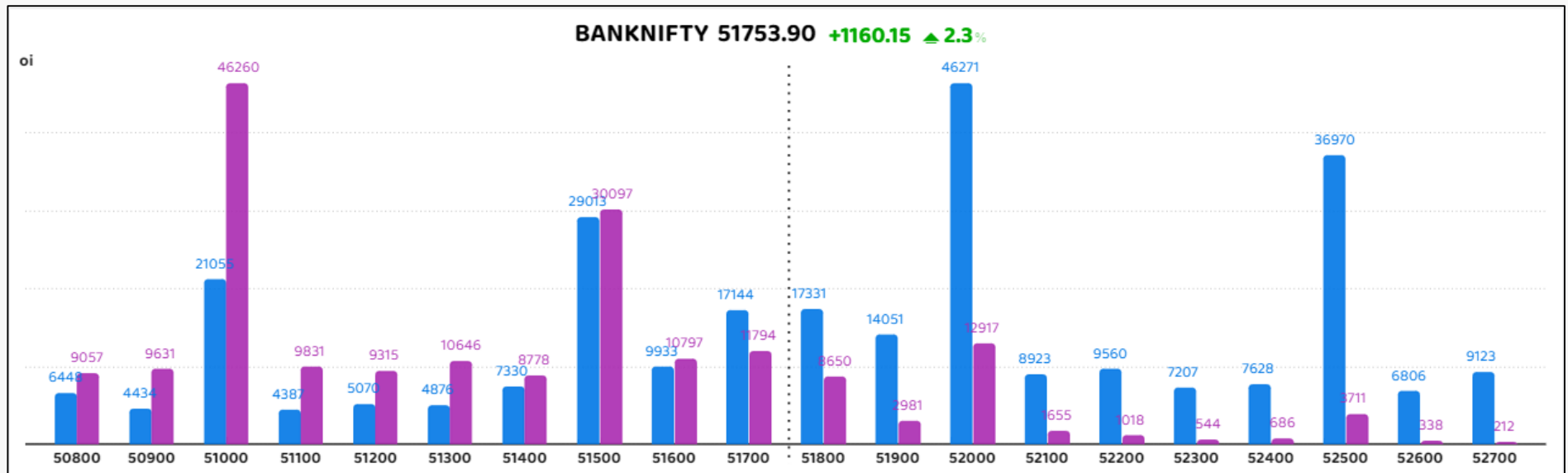
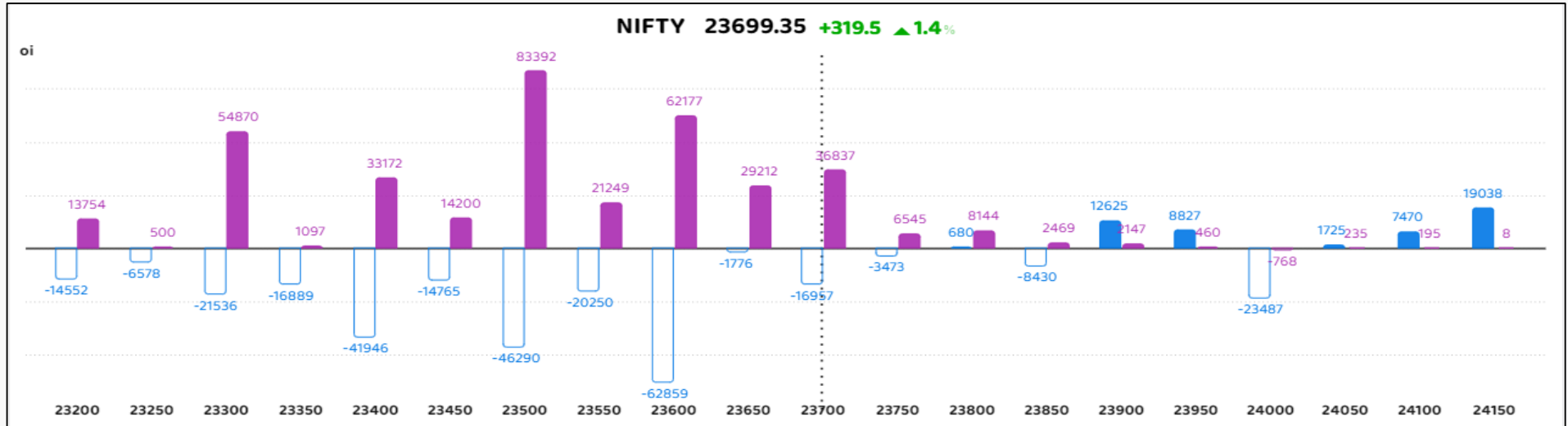


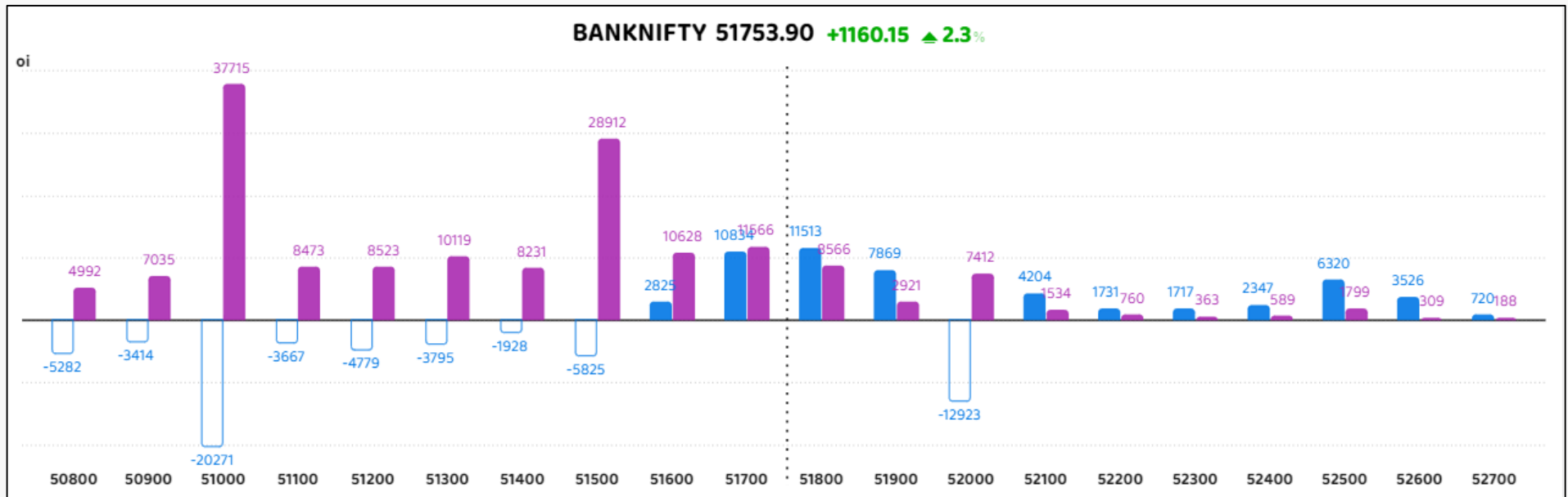
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

## 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 23500 Put



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

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
TITAGARH RAIL SY	820.9	4.6	60.3	60.3	45.3	100.0
BSE LTD	4655.05	-2.6	65.5	65.5	37.1	100.0
INDIAN RENEWABLE	170.04	9.8	67.1	67.1	51.8	100.0
ADANI GREEN ENER	952.9	-0.1	73.4	73.4	46.9	100.0
SONA BLW PRECISI	501.95	-1.5	52.4	52.4	18.5	100.0

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ADANI PORTS AND	1200.8	1.0	31.1	99.7	23.2	10.3
CIPLA LTD	1524.05	0.0	22.9	61.3	18.0	11.4
AVENUE SUPERMART	3905.1	0.3	30.3	62.3	25.7	12.7
HDFC LIFE INSURA	679.9	0.0	27.9	80.6	19.6	13.5
BANK OF BARODA	224.47	3.6	30.4	66.9	24.3	14.3

## Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
TITAGARH RAIL SY	820.9	4.6	60.3	60.3	45.3	100.0
BSE LTD	4655.05	-2.6	65.5	65.5	37.1	100.0
INDIAN RENEWABLE	170.04	9.8	67.1	67.1	51.8	100.0
ADANI GREEN ENER	952.9	-0.1	73.4	73.4	46.9	100.0
SONA BLW PRECISI	501.95	-1.5	52.4	52.4	18.5	100.0

## Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
CHAMBAL FERTILIS	619.5	3.8	30.7	77.1	4.3	12.6
COAL INDIA LTD	406	0.1	24.5	53.6	4.3	13.5
GMR AIRPORTS LTD	77.92	0.7	32.0	69.5	25.4	17.5
MANAPPURAM FINAN	240.38	2.7	35.5	64.2	2.7	24.5
MAX FINANCIAL SE	1157.35	1.5	30.9	49.3	18.6	25.3



### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
NCC LTD	209.2	1.5	43210	8738	5.0
TUBE INVESTMENTS	2854.7	-0.6	2544	557	4.6
NBCC INDIA LTD	85.4	1.9	4754	1045	4.6
BOSCH LTD	28276.8	3.1	8083	1785	4.5
COMPUTER AGE MAN	3812.4	-0.1	34728	7864	4.4

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
GLENMARK PHARMA	1492.65	-1.5	9364	17408	1.9
MCX INDIA LTD	5392.9	-1.3	32236	37612	1.2
MAX HEALTHCARE I	1146.25	-2.1	8862	9665	1.1
TORRENT PHARMA	3271.45	1.5	1957	2088	1.1
SUN PHARMA INDU	1784.8	0.0	18622	18308	1.0

**Call Open Interest Relative to Record High**

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
JINDAL STAINLESS	591.35	-5.5	4459	4459	100.0
INDIAN RENEWABLE	170.04	9.8	10701	10701	100.0
POONAWALLA FINCO	347.3	3.7	5308	5308	100.0
NCC LTD	209.18	1.5	13282	13391	99.2
MAX HEALTHCARE I	1146.25	-2.1	5372	5598	96.0

**Put Open Interest Relative to Record High**

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
HINDUSTAN AERONA	4129.8	6.1	37349	37349	100.0
JINDAL STAINLESS	591.35	-5.5	3024	3024	100.0
MCX INDIA LTD	5392.9	-1.3	18314	18314	100.0
IIFL FINANCE LTD	337	-0.9	3027	3027	100.0
TITAGARH RAIL SY	820.9	4.6	4961	4961	100.0

**Call Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
JINDAL STAINLESS	591.35	-5.5	9888	9888	100.0
INDIAN RENEWABLE	170.04	9.8	63378	63378	100.0
PB FINTECH LTD	1677.55	4.7	40294	40294	100.0
POONAWALLA FINCO	347.3	3.7	19990	19990	100.0
NCC LTD	209.18	1.5	43210	43210	100.0

**Put Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
JINDAL STAINLESS	591.35	-5.5	8839	8839	100.0
INDIAN RENEWABLE	170.04	9.8	16938	16938	100.0
GAIL INDIA LTD	181.28	3.6	38653	44721	86.4
HFCL LTD	84.94	2.6	5272	6506	81.0

**Call Open Interest to 20-day Average**

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
NCC LTD	209.18	1.5	13282	5834	2.3
COMPUTER AGE MAN	3812.4	-0.1	13330	5902	2.3
INDIAN RENEWABLE	170.04	9.8	10701	4941	2.2
JINDAL STAINLESS	591.35	-5.5	4459	2104	2.1
KEI INDUS LTD	2882.65	-0.3	28198	13483	2.1

**Put Open Interest to 20-day Average**

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
TITAGARH RAIL SY	820.9	4.6	4961	1941	2.6
MAX HEALTHCARE I	1146.25	-2.1	5417	2296	2.4
INDIAN RENEWABLE	170.04	9.8	5130	2279	2.3
KOTAK MAHINDRA	2176.15	4.7	43461	19838	2.2
TATA ELXSI LTD	5629.95	3.1	3629	1715	2.1

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
MANAPPURAM FINAN	240.38	2.7	18962	4138	4.6
KOTAK MAHINDRA	2176.15	4.7	214700	50446	4.3
CUMMINS INDIA	3056.25	4.0	37613	9989	3.8
GAIL INDIA LTD	181.28	3.6	63815	17214	3.7
HINDUSTAN AERONA	4129.8	6.1	291041	92884	3.1

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
MANAPPURAM FINAN	240.38	2.7	11969	2762	4.3
CUMMINS INDIA	3056.25	4.0	19015	5073	3.7
GAIL INDIA LTD	181.28	3.6	38653	10323	3.7
KOTAK MAHINDRA	2176.15	4.7	128015	34227	3.7
TITAN CO LTD	3079.1	-2.6	66152	20481	3.2

## 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	755400	9.8%	2369	2600	896100	9.8%	INFY	1700	2566800	6.7%	1593	1560	1660400	-2.1%
ADANIPTS	1200	807200	-0.1%	1201	1200	849200	-0.1%	ITC	420	6459200	2.2%	411	400	6318400	-2.7%
APOLLOHOSP	6700	85125	1.3%	6616	6500	78750	-1.8%	JSWSTEEL	1120	647325	5.5%	1061	1000	610875	-5.8%
ASIANPAINT	2400	676400	3.3%	2323	2200	435600	-5.3%	KOTAKBANK	2200	1026000	1.1%	2176	2100	1286800	-3.5%
AXISBANK	1100	1760625	0.2%	1098	1100	1393750	0.2%	LT	3250	737400	-6.7%	3482	3100	517950	-11.0%
BAJAJ-AUTO	8200	119250	0.9%	8126	7500	169725	-7.7%	LTIM	4800	240900	3.9%	4620	4400	153900	-4.8%
BAJAJFINSV	1900	1615500	0.3%	1894	1800	928500	-5.0%	M&M	3000	821100	8.1%	2775	2700	491750	-2.7%
BAJFINANCE	9200	317000	1.2%	9090	8500	410250	-6.5%	MARUTI	12500	258400	4.8%	11922	11500	140300	-3.5%
BHARTIARTL	1720	2523200	0.1%	1719	1700	1809750	-1.1%	NESTLEIND	2260	183800	-0.2%	2264	2100	231200	-7.2%
BPCL	270	1.4E+07	-3.7%	280	270	6413400	-3.7%	NTPC	340	10975500	-7.3%	367	340	5695500	-7.3%
BRITANNIA	4900	129600	2.2%	4797	4100	86400	-14.5%	ONGC	235	10406550	-3.6%	244	235	5255250	-3.6%
CIPLA	1580	993200	3.7%	1524	1240	515775	-18.6%	POWERGRID	280	6301800	-4.1%	292	280	3148200	-4.1%
COALINDIA	395	4470900	-2.7%	406	390	2486400	-3.9%	RELIANCE	1300	4750500	-0.2%	1302	1200	2281500	-7.8%
DIVISLAB	6000	91200	1.5%	5911	4700	93000	-20.5%	SBLIFE	1500	518625	-4.4%	1570	1400	627375	-10.8%
DRREDDY	1200	1782500	-0.9%	1210	1100	561875	-9.1%	SBIN	800	5496000	2.5%	781	700	3594000	-10.3%
EICHERMOT	5100	171325	-6.0%	5424	5000	251475	-7.8%	SUNPHARMA	1680	2046100	-5.9%	1785	1680	1015700	-5.9%
GRASIM	2420	256000	-3.7%	2513	2400	211750	-4.5%	TATACONSUM	1000	699048	3.0%	970	960	335160	-1.1%
HCLTECH	1620	427000	1.0%	1604	1360	675150	-15.2%	TATAMOTORS	720	3309900	0.9%	714	680	2308900	-4.7%
HDFCBANK	1760	4180550	-2.2%	1800	1760	2034450	-2.2%	TATASTEEL	155	23232000	-2.2%	158	150	12567500	-5.3%
HDFCLIFE	710	1277100	4.4%	680	640	1802900	-5.9%	TCS	3800	943950	4.7%	3629	3500	694575	-3.6%
HEROMOTOCO	4000	620100	10.3%	3626	3500	247500	-3.5%	TECHM	1500	833400	2.8%	1459	1400	934200	-4.0%
HINDALCO	720	4485600	2.6%	702	700	1993600	-0.2%	TITAN	3200	905625	3.9%	3079	3100	272650	0.7%
HINDUNILVR	2300	943500	1.9%	2256	2200	506700	-2.5%	ULTRACEMCO	10400	138000	-5.9%	11051	10400	78950	-5.9%
ICICIBANK	1380	1505000	1.6%	1358	1300	2633400	-4.3%	UPL	640	1727625	-2.8%	658	640	975600	-2.8%
INDUSINDBK	750	3498000	12.0%	669	600	1182500	-10.4%	WIPRO	300	7533000	11.4%	269	260	3858000	-3.5%

*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*

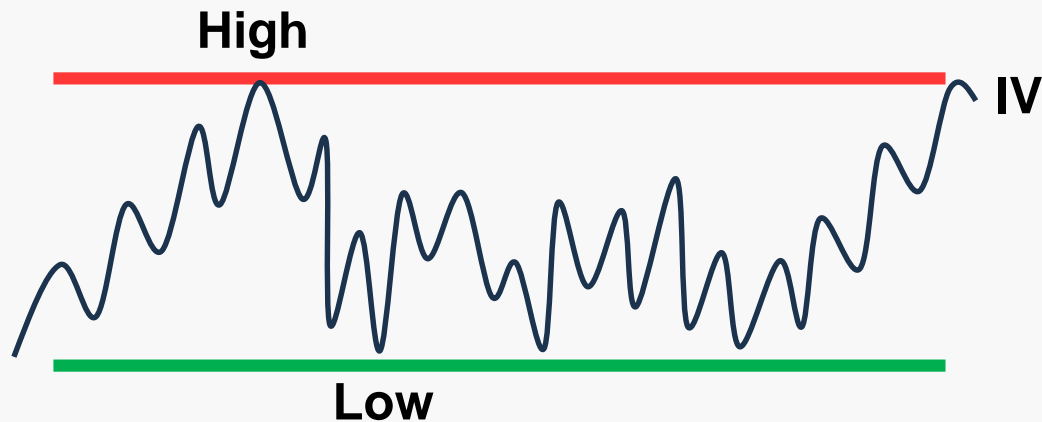
- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating 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](http://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

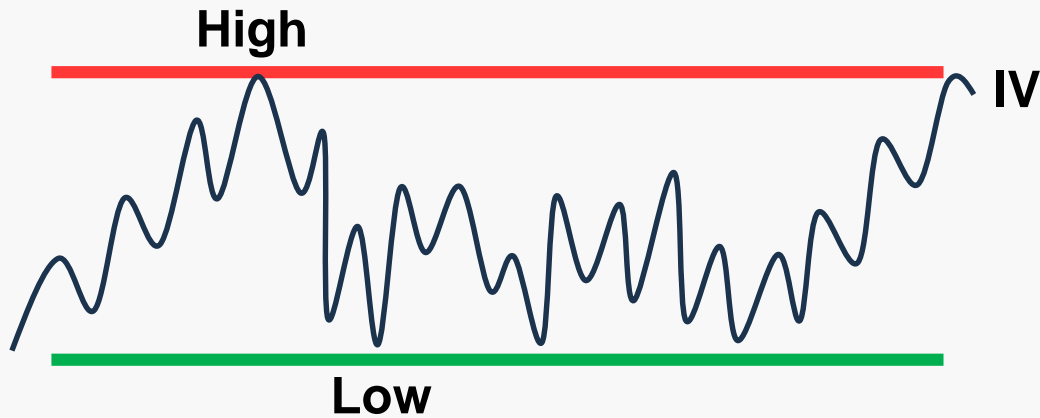


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



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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