



# Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	23,380	0.8%▲
Open Interest (OI)	1,86,40,275	3.2%▼
Change in OI (abs)	1,86,40,275	6,18,975▼
Premium / Discount (Abs)	29	20▲
<b>Inference</b>	<b>Short Covering</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	50,594	1.0%▲
Open interest (OI)	43,90,020	3.2%▼
Change in OI (abs)	43,90,020	1,44,210▼
Premium / Discount (Abs)	0	34▼
<b>Inference</b>	<b>Short Covering</b>	

## Volatility Insights

	Value	Change
India VIX Index	12.57	0.0▼
Nifty ATM IV (%)	10.36	0.2▼
Bank Nifty ATM IV (%)	11.56	0.8▼
PCR (Nifty)	1.15	0.01▼
PCR (Bank Nifty)	1.26	0.09▲

The Long Ratio for FII Index Futures has risen to **31.8%**, up from **29.7%** in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
HDFCAMC	31,13,850	10.2%	4003.15	0.6%
IGL	3,47,05,000	10.1%	198.78	0.9%
KPITTECH	31,40,400	9.6%	1322.55	3.0%
ITC	9,84,38,400	7.8%	405.9	0.4%
ADANIGREEN	1,90,02,375	7.8%	956.9	3.4%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NATIONALUM	6,19,16,250	21.8%	185.68	-2.8%
JSL	62,44,175	20.9%	624.8	-4.8%
JIOFIN	14,64,30,900	7.4%	229.42	-1.0%
COLPAL	48,30,525	5.6%	2405.1	-0.8%
BSOFT	1,39,56,000	5.5%	405.65	-0.9%

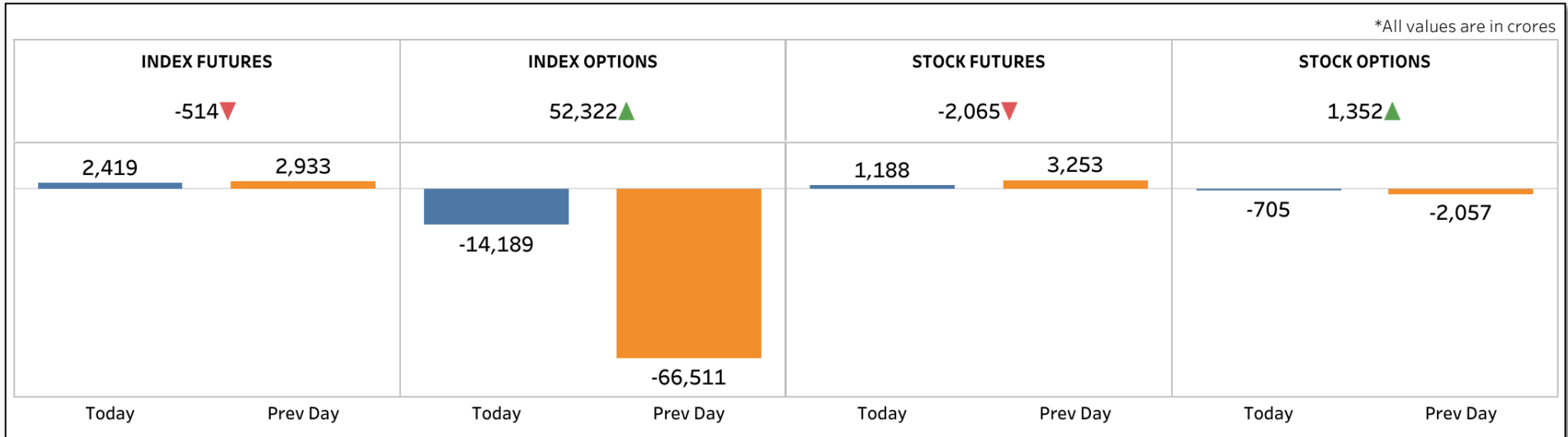
Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MANAPPURAM	4,45,47,000	-42.2%	233.75	7.2%
JKCEMENT	3,52,625	-11.9%	4830.25	3.6%
LTTTS	5,13,400	-10.0%	4673.45	0.5%
GODREJPROP	58,38,525	-7.2%	2142.5	1.5%
PIDILITIND	43,43,250	-5.1%	2824.45	2.4%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
POLYCAB	29,67,375	-9.0%	5006.25	-1.8%
LODHA	55,53,900	-3.3%	1184.2	-1.0%
BERGEPAIN	88,09,680	-1.6%	500.25	-1.5%
HINDCOPPER	3,83,32,250	-1.5%	230.08	-0.5%
NMDC	24,27,03,000	-1.2%	67.59	-1.7%

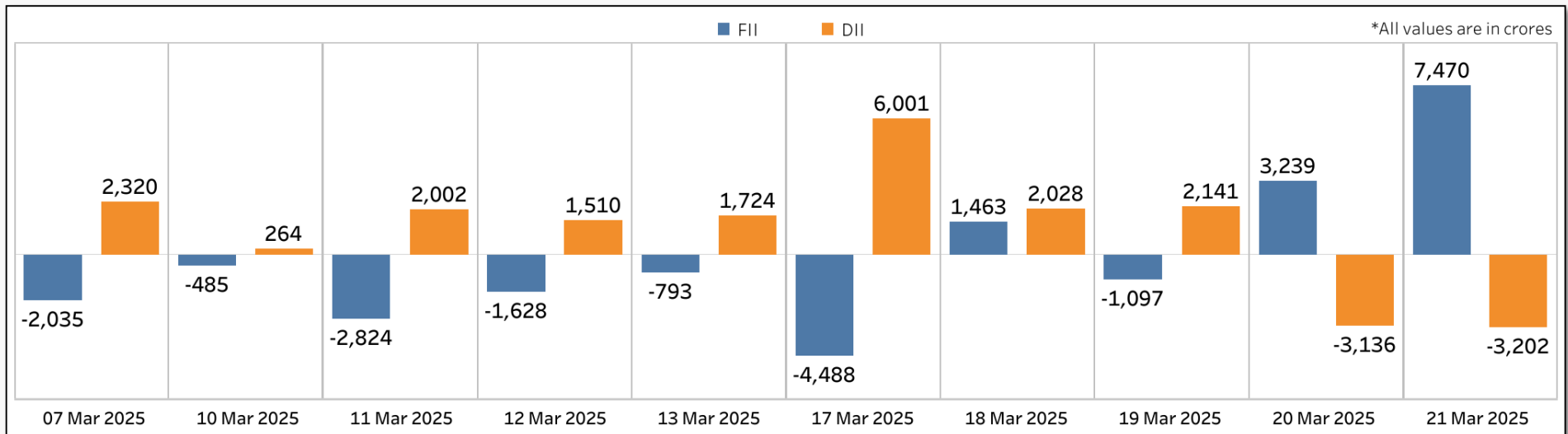
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix



## Daily Net Open Interest Change

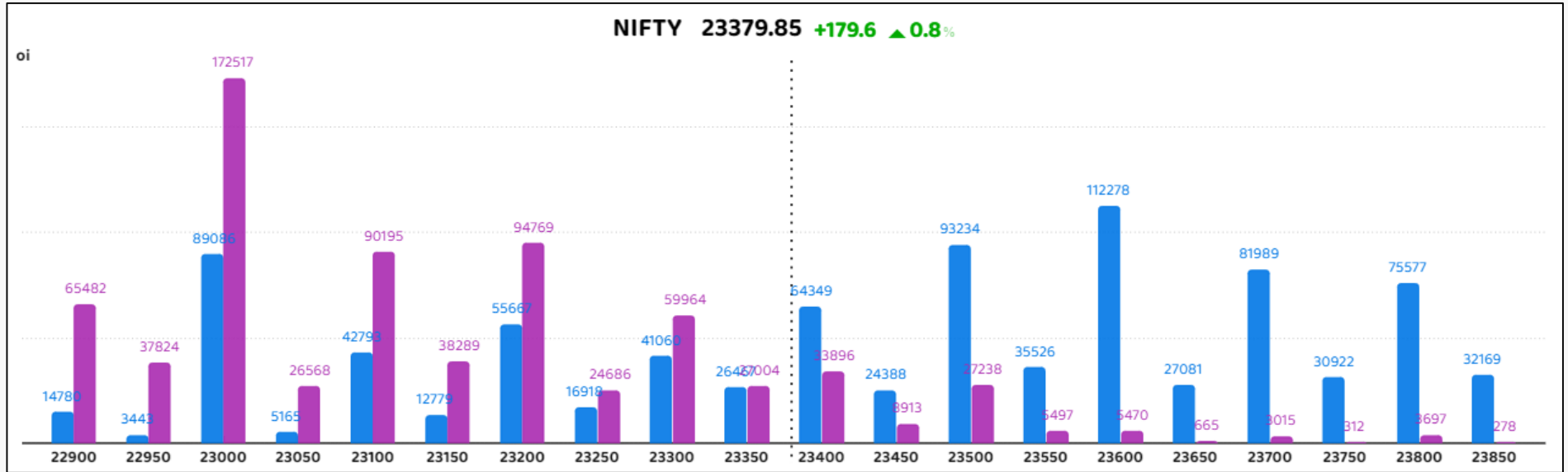


## DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 23600 Call and the 23000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 51000 Call and the 50000 Put saw the most amount of open interest.

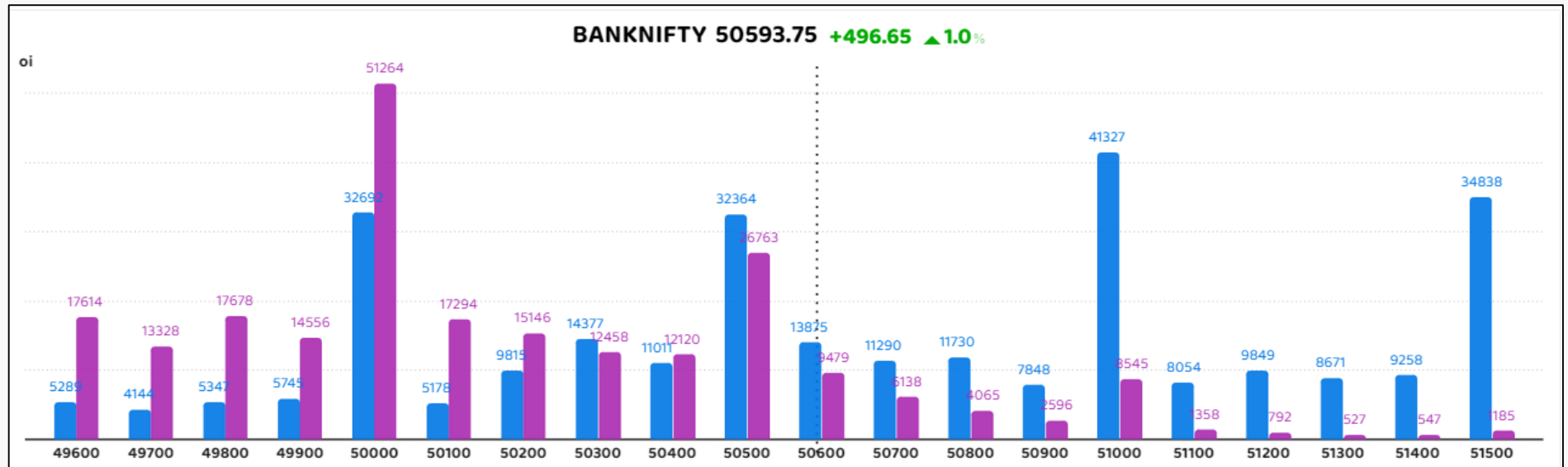
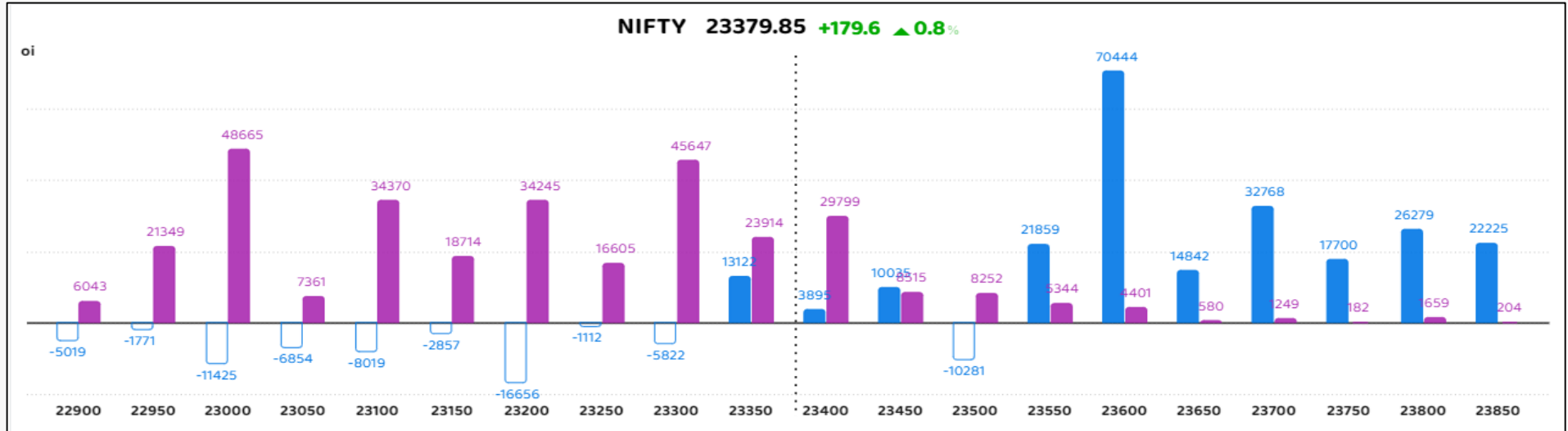


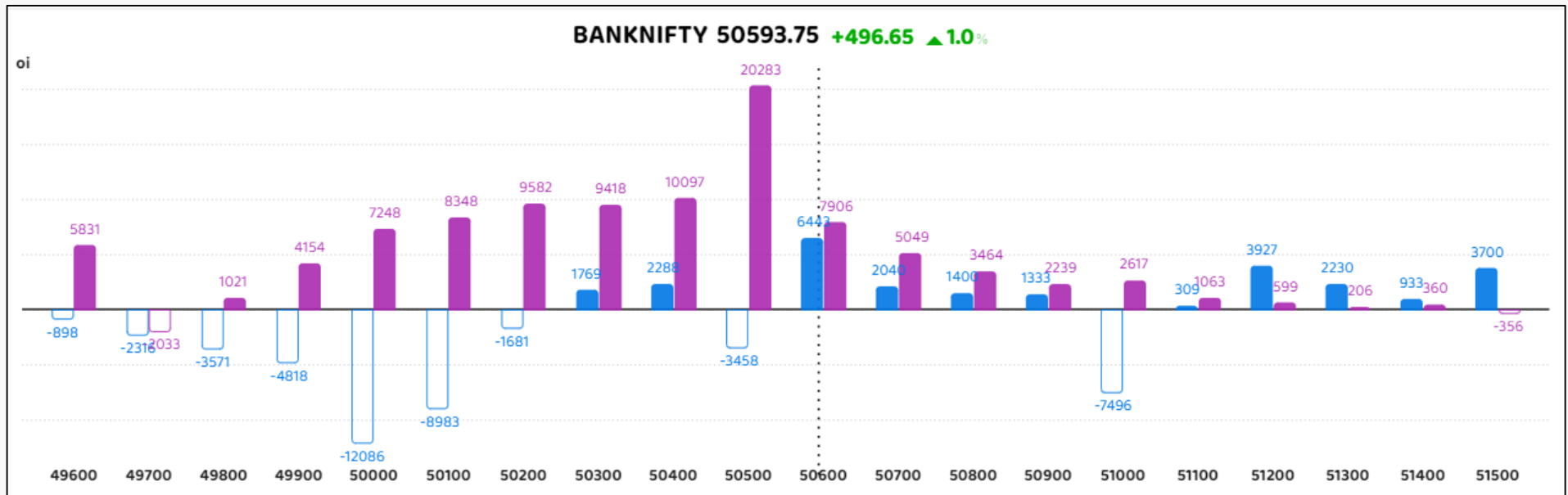
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

## 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 23000 Put



For the Bank Nifty, the biggest open interest changes were seen at the 50000 Call & the 50500 Put

**Stocks with High IVR:**

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
TITAGARH RAIL SY	784.5	5.6	59.0	59.0	45.3	100.0
DELHIVERY LTD	263.62	2.5	47.7	47.7	29.4	100.0
STEEL AUTHORITY	115.3	1.2	87.0	87.0	0.5	100.0
SJVN LTD	95.23	4.6	63.7	64.8	25.2	97.3
CYIENT LTD	1316.75	2.6	47.1	51.8	13.2	87.9

**Stocks with Low IVR:**

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INDIAN RAILWAY F	129.66	0.9	27.5	93.6	25.9	2.3
HDFC LIFE INSURA	679.6	0.8	25.7	80.6	19.6	9.9
CIPLA LTD	1523.85	0.8	22.5	61.3	18.0	10.4
BHARAT ELECTRON	295.74	-0.4	31.4	81.6	25.5	10.5
ADANI PORTS AND	1188.8	1.0	32.3	99.7	23.2	11.9

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
TITAGARH RAIL SY	784.5	5.6	59.0	59.0	45.3	100.0
DELHIVERY LTD	263.62	2.5	47.7	47.7	29.4	100.0
STEEL AUTHORITY	115.3	1.2	87.0	87.0	0.5	100.0
SJVN LTD	95.23	4.6	63.7	64.8	25.2	98.5
ADANI TOTAL GAS	630.7	1.8	62.0	78.9	28.9	97.9

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INDIAN RAILWAY F	129.66	0.9	27.5	93.6	25.9	2.5
STATE BANK IND	753.2	0.5	19.5	55.4	3.1	4.4
HINDUSTAN COPPER	229.91	-0.8	29.5	83.2	16.3	4.7
MANAPPURAM FINAN	234.16	7.7	24.4	64.2	2.7	4.8
SONA BLW PRECISI	509.35	0.2	29.7	45.8	18.5	10.2



**Stocks With High Call Volume To Put Volume**

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
INDUSIND BANK	686.9	0.4	8177	1299	6.3
COMPUTER AGE MAN	3815.7	3.0	85011	14250	6.0
TATA TECHNOLOGIE	685.75	3.0	26993	6405	4.2
SHREE CEMENT	28987.4	1.3	10660	2772	3.9
ADANI TOTAL GAS	630.7	1.8	9953	2670	3.7

**Stocks With High Put Volume To Call Volume**

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
TORRENT PHARMA	3230.75	-0.2	1880	3374	1.8
PETRONET LNG LTD	297.55	1.2	11201	12275	1.1
MUTHOOT FINANCE	2374.75	-0.8	14708	15940	1.1
TATA STEEL LTD	159.04	-1.1	45109	43830	1.0
HCL TECH LTD	1562	0.3	55151	51861	0.9

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
JINDAL STAINLESS	654.05	-4.3	2659	2659	100.0
TATA TECHNOLOGIE	665.95	3.0	4506	4506	100.0
COMPUTER AGE MAN	3706.2	3.0	13970	13970	100.0
PHOENIX MILLS	1624	2.6	2143	2143	100.0
KEI INDUS LTD	2841.1	1.7	32175	32175	100.0

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
JINDAL STAINLESS	625.7	-4.3	2334	2334	100.0
MCX INDIA LTD	5464.1	1.5	17699	17699	100.0
IIFL FINANCE LTD	340	4.1	2829	2829	100.0
TITAGARH RAIL SY	784.5	5.6	4721	4721	100.0
MAX HEALTHCARE I	1170.25	3.0	5493	5493	100.0

**Call Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
TITAGARH RAIL SY	784.5	5.6	43479	43479	100.0
MAX HEALTHCARE I	1170.25	3.0	31055	31055	100.0
TATA TECHNOLOGIE	685.75	3.0	26993	26993	100.0
COMPUTER AGE MAN	3815.7	3.0	85011	85011	100.0
POONAWALLA FINCO	334.8	5.2	19462	19462	100.0

**Put Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
IIFL FINANCE LTD	340	4.1	4763	4763	100.0
TITAGARH RAIL SY	784.5	5.6	18478	18478	100.0
MAX HEALTHCARE I	1170.25	3.0	18976	18976	100.0
TATA TECHNOLOGIE	685.75	3.0	6405	6405	100.0
INDIAN RENEWABLE	154.82	3.2	6673	6673	100.0

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

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
KEI INDUS LTD	2890.3	1.7	32175	11744	2.7
COMPUTER AGE MAN	3815.7	3.0	13970	6030	2.3
PHOENIX MILLS	1666.15	2.6	2143	1079	2.0
INTERGLOBE AVIAT	5044.05	-0.8	21424	11590	1.8
DALMIA BHARAT LT	1747.4	3.0	4292	2392	1.8

**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	784.5	5.6	4721	1740	2.7
PHOENIX MILLS	1666.15	2.6	2031	774	2.6
MAX HEALTHCARE I	1170.25	3.0	5493	2195	2.5
KEI INDUS LTD	2890.3	1.7	11804	5589	2.1
PB FINTECH LTD	1603	2.8	8111	4042	2.0

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
SHREE CEMENT	28987.4	1.3	10660	2099	5.1
JK CEMENTS LTD	4822.5	3.5	8204	1622	5.1
PIDILITE INDS	2825.5	2.4	22388	5218	4.3
ADITYA BIRLA CAP	185.52	4.9	30702	7666	4.0
HINDUSTAN PETRO	356.95	6.1	57570	14474	4.0

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
GAIL INDIA LTD	175.05	3.9	29404	8775	3.4
BHARAT PETROL	279.66	2.8	41175	12401	3.3
OIL & NATURAL GA	242.42	2.9	57592	17438	3.3
HINDUSTAN PETRO	356.95	6.1	29457	9127	3.2
MPHASIS LTD	2429.95	5.4	18743	5868	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	835200	10.0%	2363	2600	1382100	10.0%	INFY	1700	2445200	6.7%	1593	1560	1864400	-2.0%
ADANIPTS	1200	1142400	0.9%	1189	1100	780400	-7.5%	ITC	410	7358400	1.1%	406	400	6979200	-1.4%
APOLLOHOSP	6800	99625	2.9%	6612	6300	68625	-4.7%	JSWSTEEL	1120	632475	5.8%	1059	1000	768150	-5.5%
ASIANPAINT	2300	646000	0.0%	2300	2200	452800	-4.4%	KOTAKBANK	2100	855600	1.0%	2079	1900	1268400	-8.6%
AXISBANK	1100	2079375	2.8%	1070	1000	1465625	-6.6%	LT	3250	747000	-4.9%	3416	3200	556950	-6.3%
BAJAJ-AUTO	8500	122400	5.4%	8068	7500	153225	-7.0%	LTIM	4800	317550	6.2%	4520	4000	144450	-11.5%
BAJAJFINSV	1900	2251500	2.9%	1847	1800	1028500	-2.6%	M&M	3000	758100	7.1%	2802	2700	493325	-3.6%
BAJFINANCE	9000	541750	0.9%	8916	8500	483000	-4.7%	MARUTI	12000	269150	2.3%	11733	11500	134100	-2.0%
BHARTIARTL	1720	2521300	-0.3%	1726	1700	1973625	-1.5%	NESTLEIND	2260	189000	-0.4%	2269	2100	248200	-7.4%
BPCL	270	1.5E+07	-3.5%	280	270	6526800	-3.5%	NTPC	340	11107500	-3.2%	351	340	6190500	-3.2%
BRITANNIA	4850	142700	0.7%	4814	4600	91600	-4.4%	ONGC	235	10572100	-3.1%	242	235	5189800	-3.1%
CIPLA	1540	582075	1.1%	1524	1240	515775	-18.6%	POWERGRID	280	6424200	-1.1%	283	275	3078000	-2.9%
COALINDIA	395	4485600	-2.6%	405	400	2569350	-1.3%	RELIANCE	1300	8768500	1.9%	1276	1200	3212000	-6.0%
DIVISLAB	6000	145400	3.5%	5797	4700	93700	-18.9%	SBLIFE	1500	575250	-3.0%	1546	1400	705375	-9.5%
DRREDDY	1200	1806875	0.0%	1200	1100	623125	-8.3%	SBIN	800	5607750	6.2%	753	700	3969000	-7.1%
EICHERMOT	5500	185675	3.7%	5306	5000	447650	-5.8%	SUNPHARMA	1680	2051000	-5.9%	1785	1680	1012900	-5.9%
GRASIM	2420	257250	-2.0%	2469	2400	209000	-2.8%	TATACONSUM	1000	736896	4.0%	961	960	345192	-0.1%
HCLTECH	1600	570500	2.1%	1567	1400	723450	-10.6%	TATAMOTORS	700	3928650	-0.4%	703	680	2501400	-3.3%
HDFCBANK	1760	4653000	-0.6%	1770	1740	2311650	-1.7%	TATASTEEL	155	31086000	-1.4%	157	140	13035000	-11.0%
HDFCLIFE	710	1295800	4.5%	680	640	1870000	-5.8%	TCS	3800	1058925	6.2%	3578	3500	740075	-2.2%
HEROMOTOCO	4000	595800	10.2%	3629	3500	232950	-3.6%	TECHM	1460	796800	3.6%	1409	1400	927600	-0.7%
HINDALCO	720	5089000	3.5%	695	700	2073400	0.7%	TITAN	3200	673225	1.2%	3163	3000	335475	-5.1%
HINDUNILVR	2300	924900	2.4%	2246	2200	563100	-2.1%	ULTRACEMCO	10400	139100	-5.3%	10977	10400	83800	-5.3%
ICICIBANK	1350	1844500	0.5%	1343	1300	3093300	-3.2%	UPL	640	1739820	-2.9%	659	620	1002700	-5.9%
INDUSINDBK	750	3842000	9.2%	687	600	1212000	-12.7%	WIPRO	270	7992000	2.2%	264	260	4140000	-1.6%

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

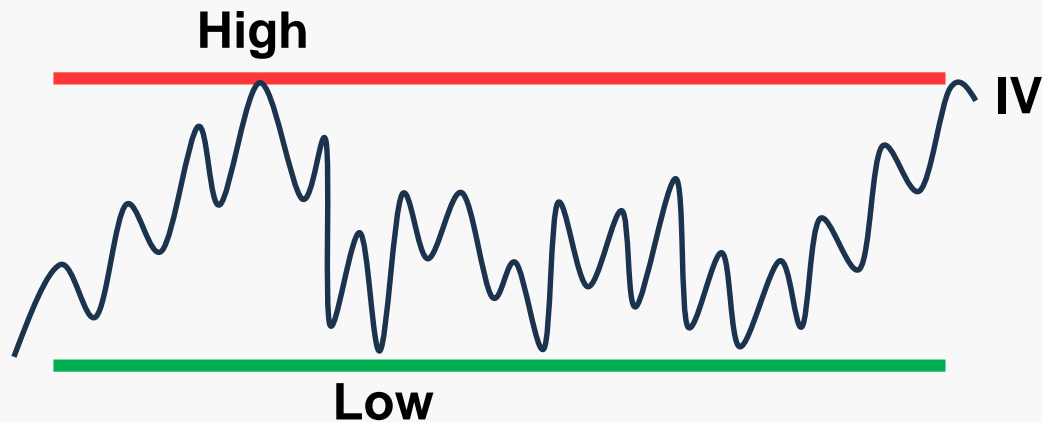
- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating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

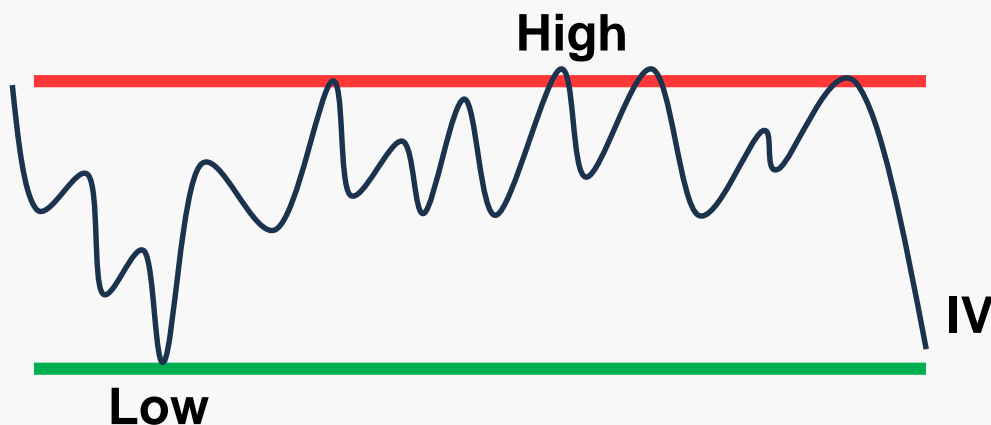
- **Volume:** Number of contracts traded for the day. If A bought 10 calls & B sold 10 calls, the volume for the day is 10 contracts
- **Open Interest:** The number of derivatives contracts that are open (have not been closed out). If A bought 10 calls, B bought another 10 calls and C sold 20 calls, 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

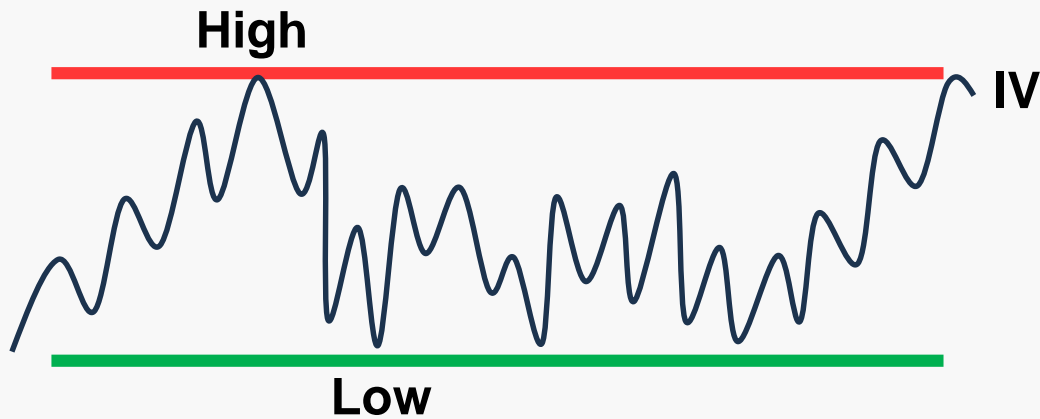


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

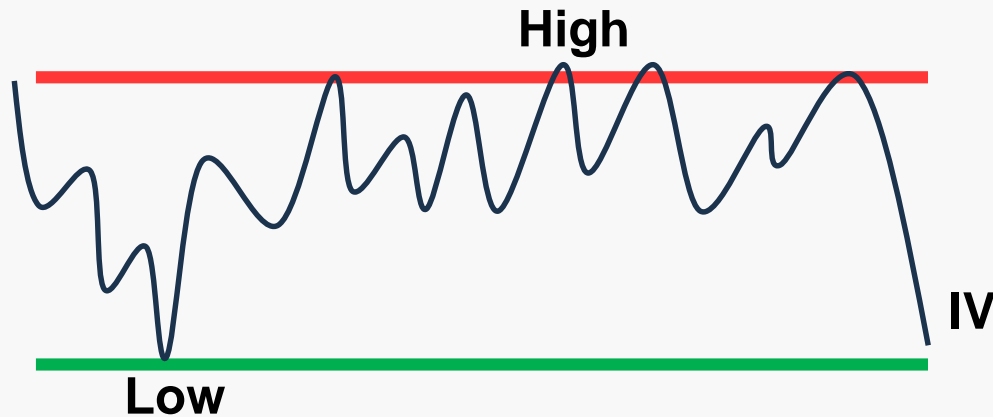


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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