



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	22,444	0.4% ▼
Open Interest (OI)	2,01,92,475	0.7% ▲
Change in OI (abs)	2,01,92,475	1,43,850 ▲
Premium / Discount (Abs)	47	13 ▼
<b>Inference</b>	<b>Short Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	48,160	0.1% ▼
Open interest (OI)	45,41,610	0.8% ▲
Change in OI (abs)	45,41,610	37,530 ▲
Premium / Discount (Abs)	100	57 ▼
<b>Inference</b>	<b>Short Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	13.28	0.4 ▼
Nifty ATM IV (%)	11.92	0.7 ▼
Bank Nifty ATM IV (%)	13.62	0.9 ▼
PCR (Nifty)	1.02	0.06 ▲
PCR (Bank Nifty)	0.94	0.04 ▼

The Long Ratio for the FII Index Futures **jump** to 18.5%, against 17.9% recorded in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CAMS	16,81,875	35.5%	3373.15	2.3%
ATGL	57,79,950	3.8%	594.75	0.4%
BEL	10,25,03,100	3.0%	280.33	0.9%
NYKAA	4,23,00,050	2.6%	163.47	0.4%
MCX	25,08,900	2.4%	4807.05	0.3%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
POLICYBZR	64,47,675	14.1%	1329.7	-5.5%
HFCL	6,18,22,550	12.1%	77.79	-2.1%
RAMCOCEM	62,22,850	12.0%	803.55	-2.0%
PATANJALI	22,45,800	10.9%	1716.65	-1.1%
IREDA	2,97,30,800	7.7%	138.53	-0.4%

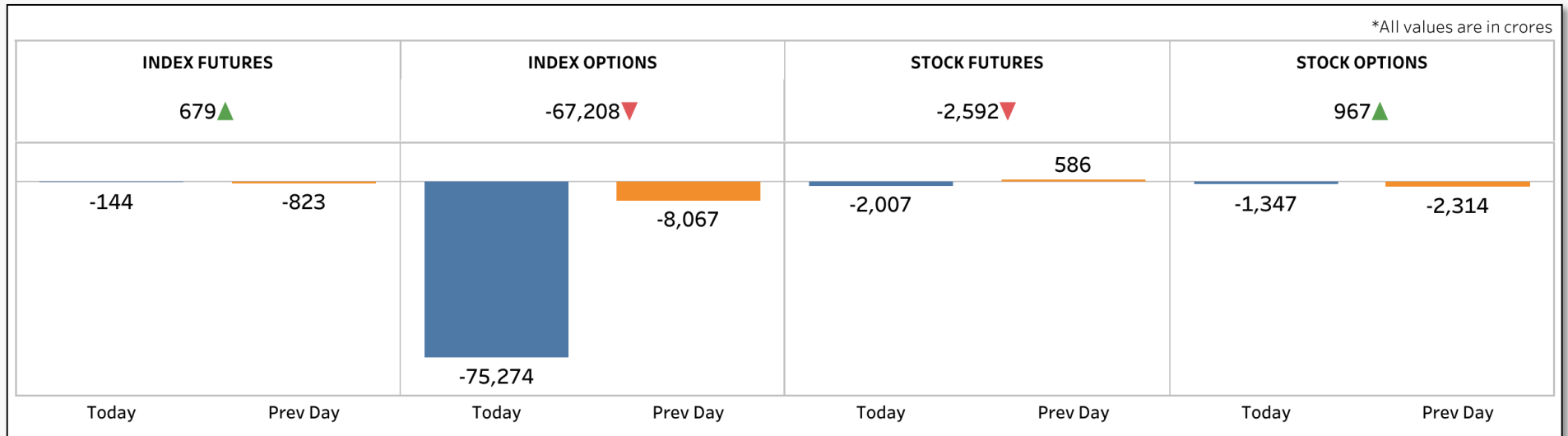
Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CUMMINSIND	33,19,500	-2.5%	2836.6	0.5%
KOTAKBANK	3,63,33,600	-2.3%	1985	0.1%
DABUR	1,59,06,250	-2.3%	500.9	0.1%
M&MFIN	2,14,24,000	-1.7%	271.75	0.3%
MANAPPURAM	6,54,96,000	-1.4%	209.02	1.0%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
JKCEMENT	5,26,250	-4.8%	4280.15	-2.1%
HAVELLS	61,48,000	-4.5%	1457	-1.7%
ALKEM	9,22,200	-4.5%	4704.25	-0.9%
MUTHOOTFIN	33,21,450	-4.2%	2192.65	-0.8%
ASHOKLEY	5,53,80,000	-3.7%	196.52	-0.1%

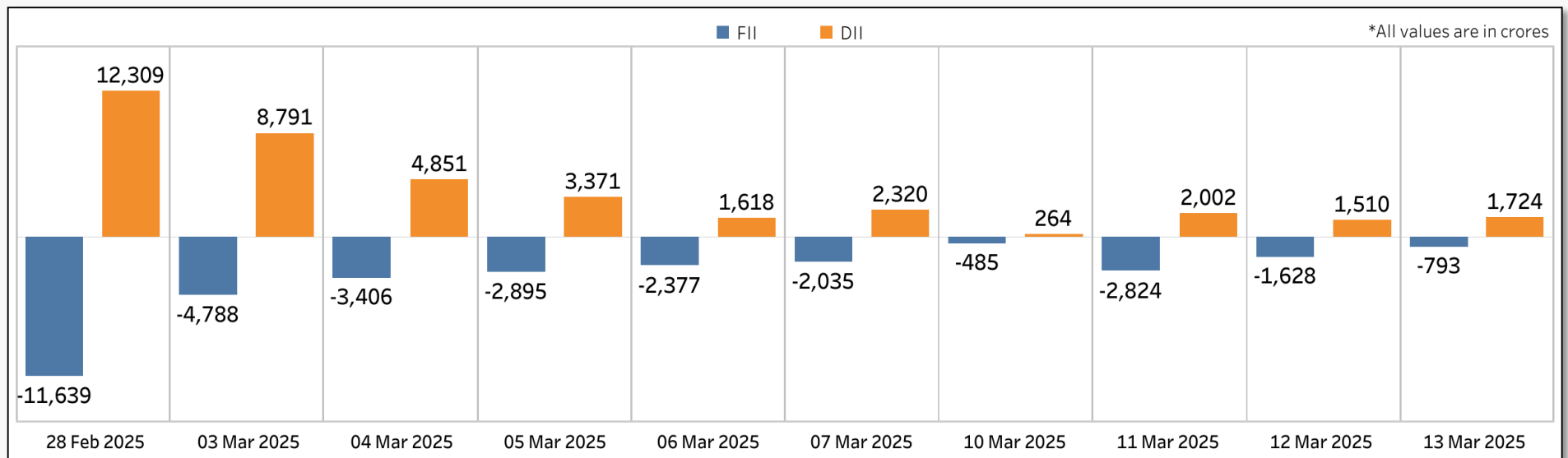
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix



## Daily Net Open Interest Change

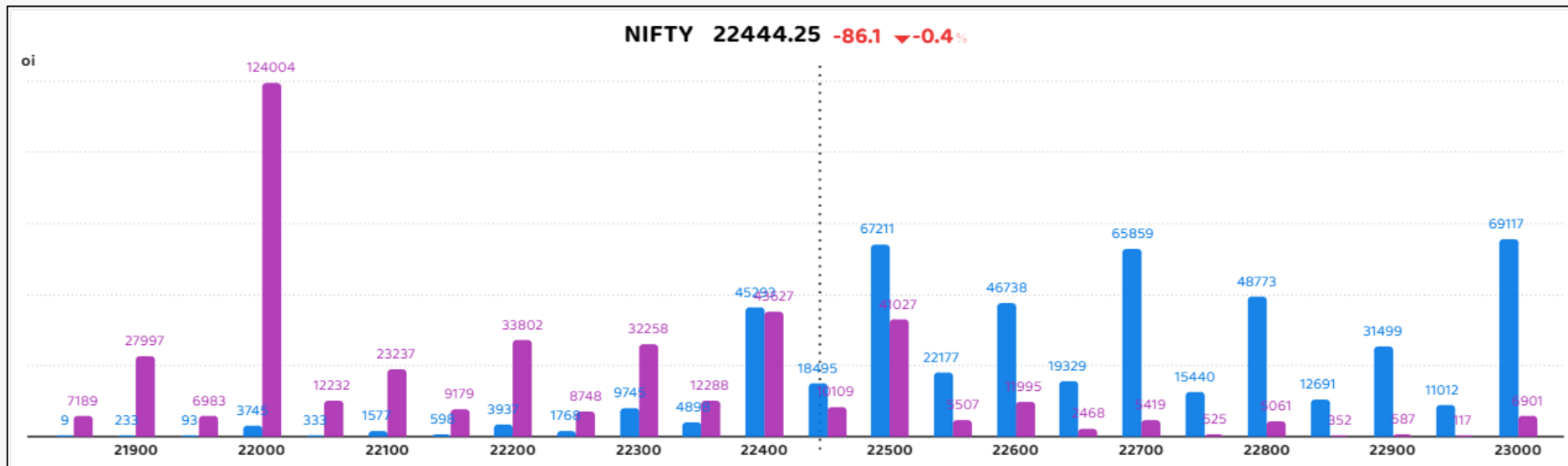


## DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 22500 Call and the 22000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 49000 Call and the 48000 Put saw the most amount of open interest.

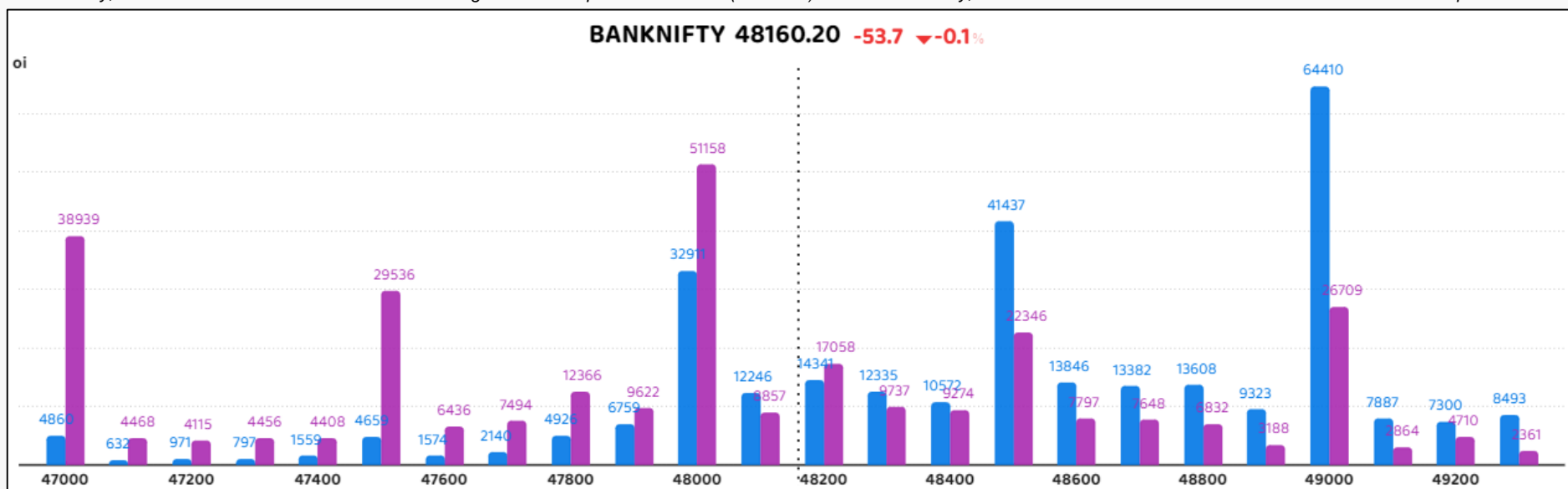
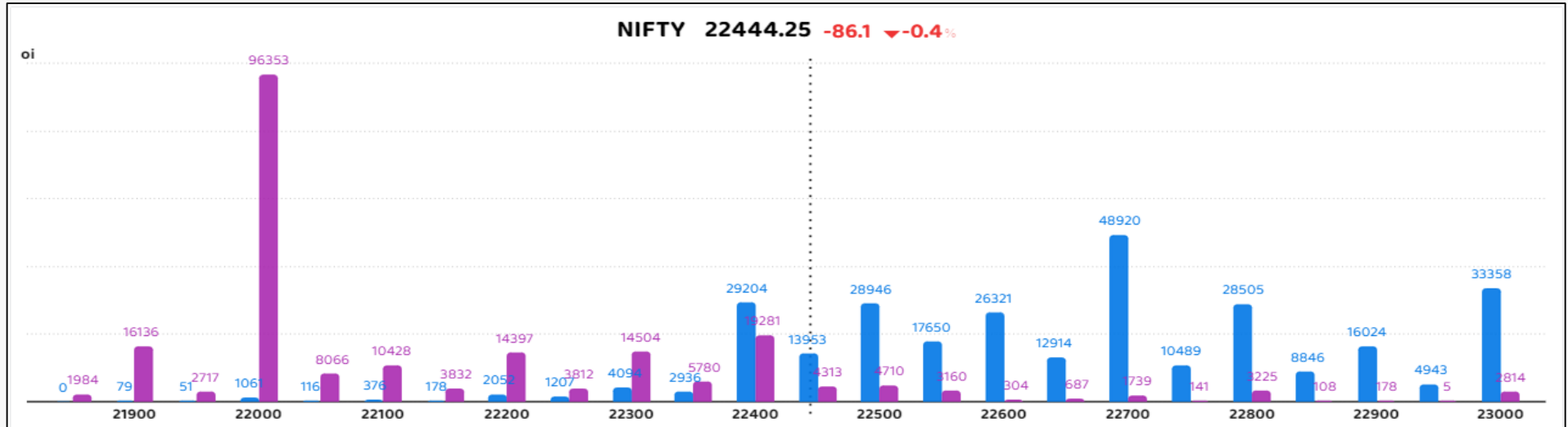


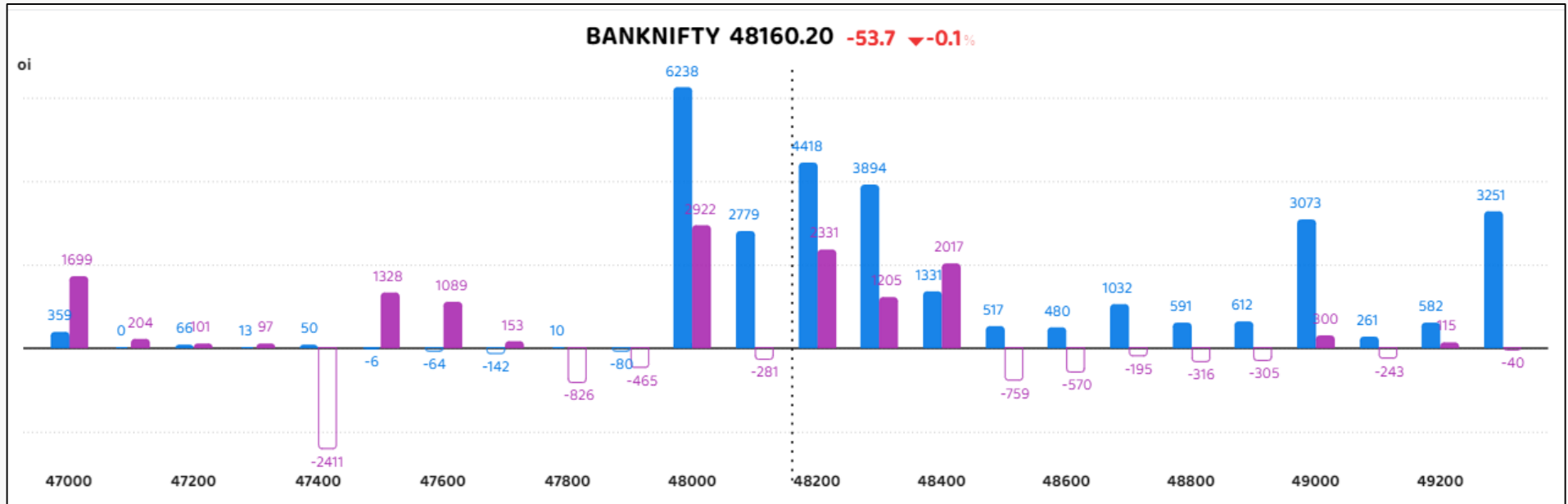
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 22700 Call and the 22000 Put



For the Bank Nifty, the biggest open interest changes were seen at the 48000 Call & the 48000 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INDIAN BANK	490.4	-0.7	48.8	48.8	22.0	100.0
PB FINTECH LTD	1331.9	-5.3	52.6	53.5	30.7	96.1
LAURUS LABS LTD	574.05	-1.8	42.4	44.8	16.1	91.7
LTIMINDTREE LTD	4467.05	-0.4	34.8	36.6	20.0	89.3
SJVN LTD	85.42	-1.1	60.1	64.8	25.2	88.1

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INDIAN RENEWABLE	139.85	-1.0	56.0	63.1	56.0	0.0
SYNGENE INTERNAT	666.2	-1.5	15.7	38.8	15.7	0.0
NBCC INDIA LTD	77.89	-1.5	38.6	65.4	38.6	0.0
BALKRISHNA INDS	2499.05	-1.8	18.5	58.3	17.8	1.8
MRF LTD	105041.6	-2.1	10.3	36.7	8.9	5.2

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INDIAN BANK	490.4	-0.7	48.8	48.8	22.0	100.0
INDUSIND BANK	672.35	-1.8	50.9	64.6	12.4	99.2
PB FINTECH LTD	1331.9	-5.3	52.6	53.5	30.7	99.2
COMPUTER AGE MAN	3410.1	2.6	47.9	54.3	30.0	98.7
TUBE INVESTMENTS	2926.55	0.3	47.1	55.3	18.7	97.7

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INDIAN RENEWABLE	139.85	-1.0	56.0	63.1	56.0	0.0
SYNGENE INTERNAT	666.2	-1.5	15.7	38.8	15.7	0.0
NBCC INDIA LTD	77.89	-1.5	38.6	65.4	38.6	0.0
MRF LTD	105041.6	-2.1	10.3	36.7	8.9	0.9
BALKRISHNA INDS	2499.05	-1.8	18.5	58.3	17.8	1.2



### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
AARTI INDUS LTD	382.75	-2.3	15745	2554	6.2
INDUSIND BANK	672.35	-1.8	10947	2167	5.1
YES BANK LTD	16.19	0.2	3137	682	4.6
ADANI ENERGY SOL	783.2	0.2	15620	3973	3.9
UNITED SPIRITS	1353.7	1.3	13865	3571	3.9

### 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	1299.5	-1.0	3727	7823	2.1
BALKRISHNA INDS	2544.35	-1.8	1597	2492	1.6
SYNGENE INTERNAT	676.6	-1.5	888	1234	1.4
ASIAN PAINTS LTD	2251.3	-0.9	22088	30564	1.4
MUTHOOT FINANCE	2209	-0.6	4577	5975	1.3

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
IIFL FINANCE LTD	313.1	0.0	2440	2440	100.0
TITAGARH RAIL SY	699.55	-0.8	3848	3848	100.0
SOLAR INDUSTRIES	9781.1	3.2	2903	2903	100.0
TATA TECHNOLOGIE	642.1	-0.8	3591	3591	100.0
INDIAN RENEWABLE	141.26	-1.0	4871	4871	100.0

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
JINDAL STAINLESS	632.3	-0.8	1683	1683	100.0
SOLAR INDUSTRIES	10097.15	3.2	1955	1955	100.0
TATA TECHNOLOGIE	636.8	-0.8	2069	2069	100.0
PRESTIGE ESTATES	1129.6	1.0	3366	3366	100.0
VARUN BEVERAGES	488.15	2.0	12762	12762	100.0

**Call Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
PB FINTECH LTD	1331.9	-5.3	21584	24930	86.6
AVENUE SUPERMART	3797.1	3.3	121108	147405	82.2

**Put Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
TATA TECHNOLOGIE	636.8	-0.8	2630	2630	100.0
PB FINTECH LTD	1331.9	-5.3	25444	25444	100.0
PATANJALI FOODS	1718.6	-0.9	7817	8315	94.0

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

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
INDUSIND BANK	672.35	-1.8	119006	49014	2.4
TITAGARH RAIL SY	694.3	-0.8	3848	2212	1.7
RAMCO CEMENT/THE	801.55	-2.3	3994	2354	1.7
INFOSYS LTD	1579.85	-0.7	68411	40446	1.7
BIRLASOFT LTD	385.75	-1.5	8283	5051	1.6

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

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
SOLAR INDUSTRIES	10097.15	3.2	1955	1076	1.8
BALKRISHNA INDS	2499.05	-1.8	2064	1183	1.7
INDUSIND BANK	672.35	-1.8	49014	28595	1.7
RAMCO CEMENT/THE	801.55	-2.3	3241	1899	1.7
TATA COMMUNICATI	1503.95	-0.3	6522	3869	1.7

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
RAMCO CEMENT/THE	801.55	-2.3	8492	4018	2.1
AARTI INDUS LTD	382.75	-2.3	15745	8068	2.0
UNITED SPIRITS	1353.7	1.3	13865	7112	1.9
MPHASIS LTD	2205.15	-0.9	12847	7005	1.8
OIL & NATURAL GA	225.43	0.5	50249	28247	1.8

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
RAMCO CEMENT/THE	801.55	-2.3	10871	3710	2.9
BHARAT FORGE CO	1039.25	-4.7	20935	7366	2.8
HDFC ASSET MANAG	3725.1	-1.1	10672	4716	2.3
OIL & NATURAL GA	225.43	0.5	23686	14268	1.7
TATA COMMUNICATI	1503.95	-0.3	8115	5064	1.6

## 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	1253100	17.1%	2221	2600	2710200	17.1%	INFY	1700	3536800	7.6%	1580	1500	1244800	-5.1%
ADANIPTS	1200	1170400	7.2%	1119	1100	1082400	-1.7%	ITC	420	5628800	1.9%	412	400	4556800	-2.9%
APOLLOHOSP	6800	103750	11.4%	6106	6000	69375	-1.7%	JSWSTEEL	1020	894375	1.9%	1001	900	817425	-10.1%
ASIANPAINT	2300	747600	3.1%	2231	2200	480800	-1.4%	KOTAKBANK	2000	1334800	0.8%	1985	1900	1188000	-4.3%
AXISBANK	1100	2358750	8.9%	1010	1000	1983750	-1.0%	LT	3300	870150	3.5%	3187	3100	513900	-2.7%
BAJAJ-AUTO	8000	228225	6.6%	7505	7000	127425	-6.7%	LTIM	4800	225750	7.5%	4467	4500	105150	0.7%
BAJAJFINSV	1900	1339000	5.1%	1807	1800	507500	-0.4%	M&M	3000	1426950	13.5%	2644	2500	669900	-5.4%
BAJFINANCE	9000	551500	6.9%	8420	8000	347250	-5.0%	MARUTI	11800	255550	2.5%	11514	11500	119250	-0.1%
BHARTIARTL	1700	4620800	4.1%	1633	1600	1907600	-2.0%	NESTLEIND	2260	216000	3.1%	2192	2100	284000	-4.2%
BPCL	270	1.6E+07	2.1%	264	260	2439000	-1.7%	NTPC	340	12783000	2.4%	332	310	3252000	-6.6%
BRITANNIA	4900	112300	3.6%	4728	4100	88800	-13.3%	ONGC	240	10602900	6.5%	225	220	3491950	-2.4%
CIPLA	1600	688350	9.4%	1462	1240	587600	-15.2%	POWERGRID	280	6964200	4.6%	268	260	1859400	-2.9%
COALINDIA	395	4895100	4.4%	378	450	2712150	19.0%	RELIANCE	1300	8546500	4.2%	1248	1200	5077500	-3.8%
DIVISLAB	6000	148800	6.8%	5620	4700	94200	-16.4%	SBLIFE	1500	697125	8.3%	1386	1400	261000	1.0%
DRREDDY	1200	2634375	8.3%	1108	1100	465625	-0.7%	SBIN	800	7560000	9.9%	728	700	5541000	-3.8%
EICHERMOT	5100	237300	1.7%	5015	4800	217350	-4.3%	SUNPHARMA	1680	2149700	-0.2%	1683	1600	976850	-5.0%
GRASIM	2420	313750	2.1%	2370	2400	167750	1.3%	TATACONSUM	1000	689472	5.7%	946	950	508440	0.4%
HCLTECH	1600	710150	4.3%	1535	1400	764750	-8.8%	TATAMOTORS	700	8845100	6.8%	656	600	2770900	-8.5%
HDFCBANK	1800	3692150	5.5%	1707	1700	2506350	-0.4%	TATASTEEL	155	36679500	2.7%	151	140	14437500	-7.2%
HDFCLIFE	700	1467400	12.5%	622	550	957000	-11.6%	TCS	4000	1210475	13.9%	3511	3500	746900	-0.3%
HEROMOTOCO	4000	539400	13.3%	3529	3200	177150	-9.3%	TECHM	1600	1042800	11.1%	1441	1340	534600	-7.0%
HINDALCO	700	4067000	3.3%	677	620	2923200	-8.5%	TITAN	3200	651875	6.3%	3010	3000	329525	-0.3%
HINDUNILVR	2300	993600	5.8%	2175	2100	506400	-3.4%	ULTRACEMCO	11000	163250	5.2%	10452	10000	77450	-4.3%
ICICIBANK	1300	2254700	4.0%	1250	1200	2917600	-4.0%	UPL	640	2192390	6.4%	601	580	882105	-3.6%
INDUSINDBK	750	5907000	11.5%	672	600	1860500	-10.8%	WIPRO	300	9996000	13.6%	264	240	3951000	-9.1%

*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*

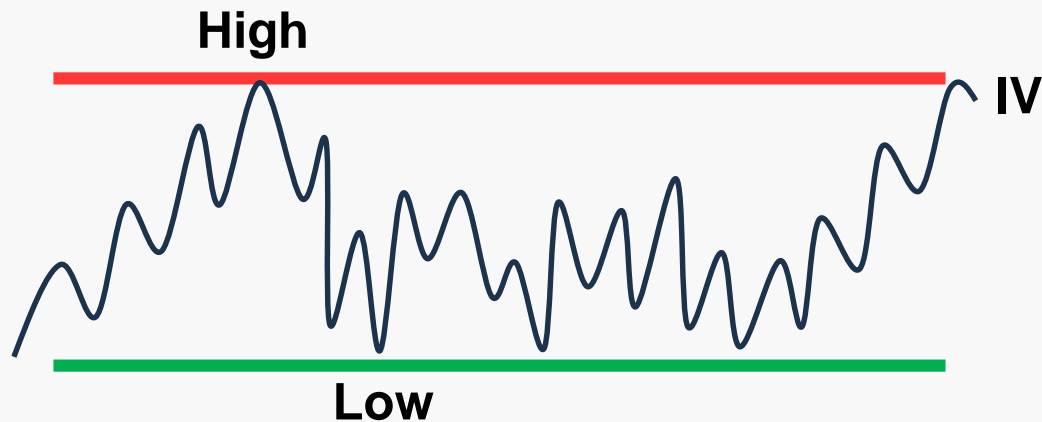
- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating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

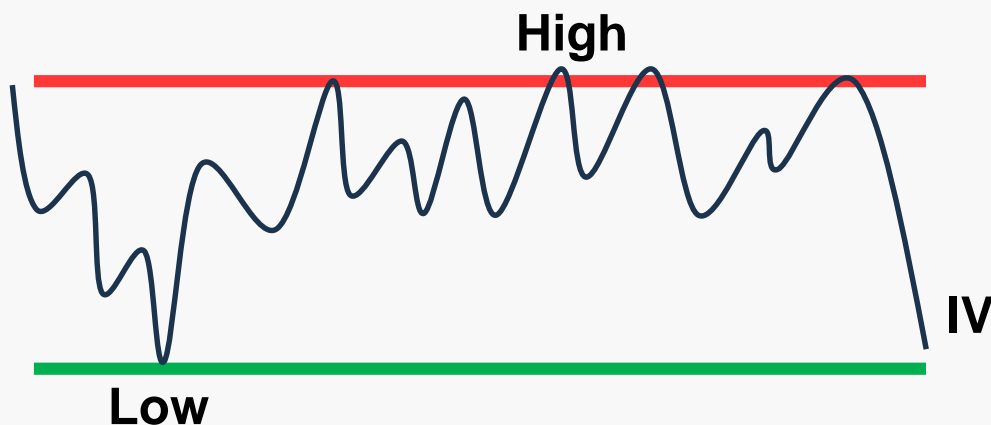
- **Volume:** Number of contracts traded for the day. If A bought 10 calls & B sold 10 calls, the volume for the day is 10 contracts
- **Open Interest:** The number of derivatives contracts that are open (have not been closed out). If A bought 10 calls, B bought another 10 calls and C sold 20 calls,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

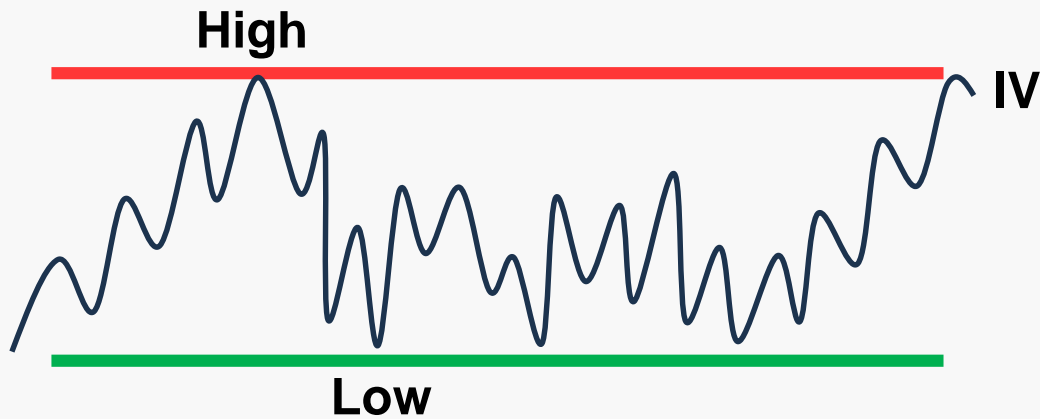


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

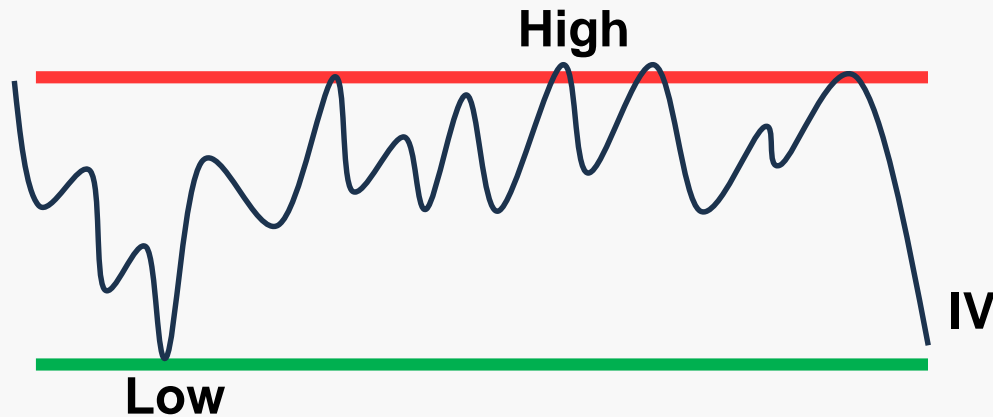


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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