



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	23,175	1.2% ▼
Open Interest (OI)	2,17,47,440	0.8% ▲
Change in OI (abs)	2,17,47,440	1,81,480 ▲
Premium / Discount (Abs)	52	33 ▼
<b>Inference</b>	<b>Short Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	54,242	0.99% ▼
Open interest (OI)	26,90,520	0.7% ▼
Change in OI (abs)	26,90,520	19,680 ▼
Premium / Discount (Abs)	178	107 ▼
<b>Inference</b>	<b>Long Unwinding</b>	

## Volatility Insights

	Value	Change
India VIX Index	17.03	1.24 ▲
Nifty ATM IV (%)	16.42	1.82 ▲
Bank Nifty ATM IV (%)	20.33	1.73 ▲
PCR (Nifty)	0.78	0.05 ▼
PCR (Bank Nifty)	0.86	0.01 ▼

The FII Long Ratio in Index Futures **Drop to 7.5%**, **down** from **8.1 %** in the previous session.

## Single Stock Futures Movers

### Long Buildup (Open Interest Higher + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
MPHASIS	46,01,025	5.8%	2343.1	0.0%
ALKEM	13,65,125	2.0%	5375.5	1.7%
NAUKRI	1,53,52,250	1.0%	1002.8	0.7%
BSE	87,37,775	0.1%	3932.7	0.7%
ONGC	9,10,23,750	0.0%	266.1	0.1%

### Short Buildup (Open Interest Higher + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
NAM-INDIA	68,33,750	14.0%	1040.8	-5.9%
GVT&D	7,09,000	8.9%	4754	-6.6%
LTF	5,30,07,750	7.6%	258.8	-3.3%
MUTHOOTFIN	43,00,175	5.8%	2980.2	-6.1%
DIVISLAB	28,98,500	5.7%	6557.5	-1.6%

### Short Covering (Open Interest Lower + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
POWERGRID	8,28,89,400	-2.6%	291.2	1.2%
GAIL	7,33,33,400	-2.4%	169.1	0.2%
MANKIND	32,11,500	-1.4%	2368.5	0.7%
MCX	1,18,70,675	-1.4%	2833.9	0.9%
PAGEIND	2,83,900	-1.3%	38425	0.1%

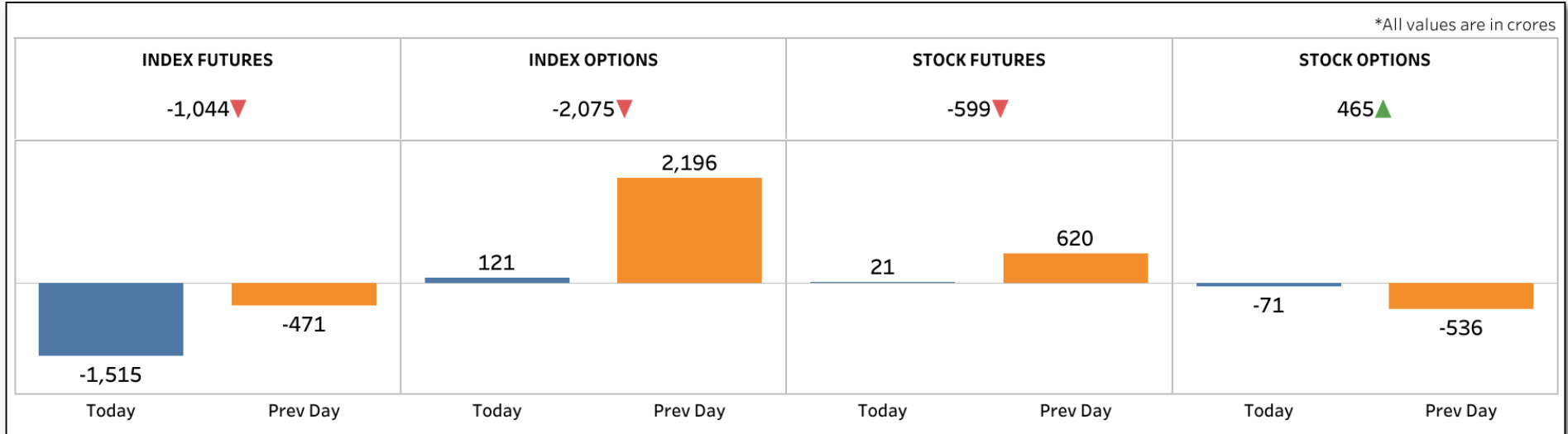
### Long Unwinding (Open Interest Lower + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
PATANJALI	3,00,57,850	-7.4%	420.8	-0.4%
HDFCAMC	60,56,100	-5.4%	2458.5	-2.0%
PNBHOUSING	1,06,93,150	-3.7%	971.3	-3.3%
JSWENERGY	2,24,40,025	-3.7%	571.45	-2.6%
ADANIENSOL	1,94,78,475	-3.1%	1573.5	-1.0%

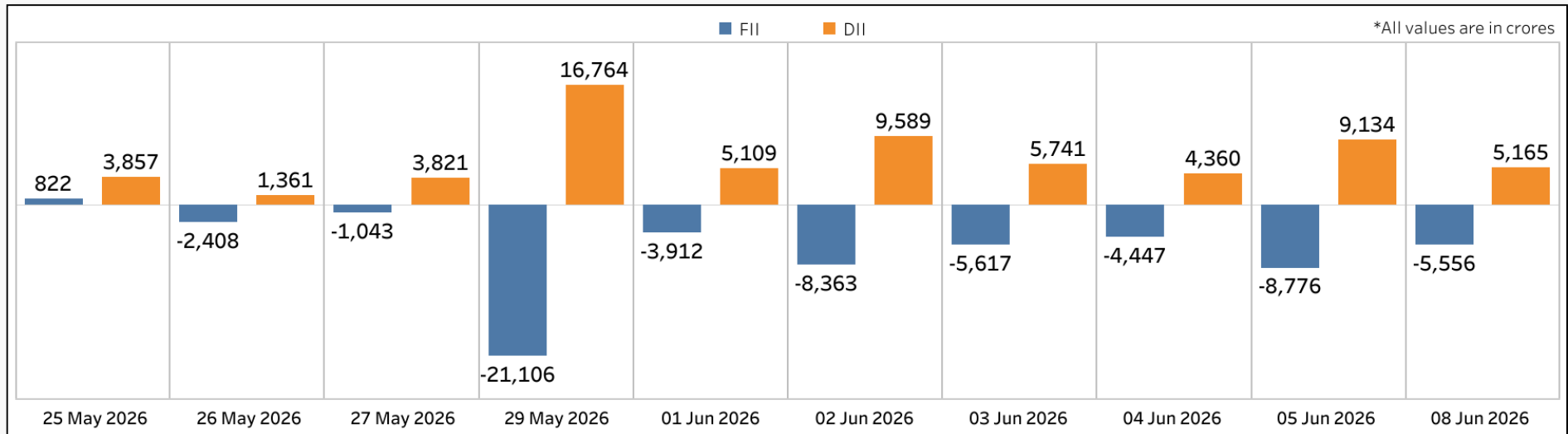
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix



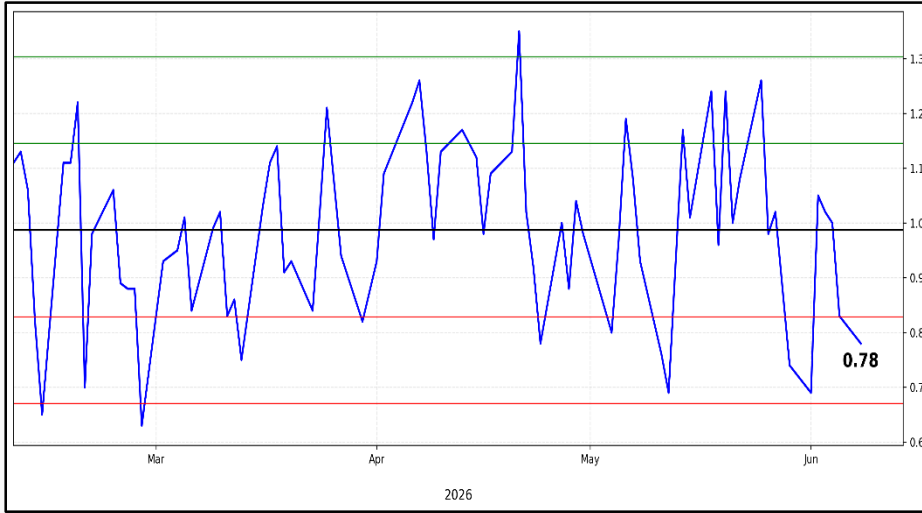
## Daily Net Open Interest Change



## DII and FII Daily Cash Market Flows



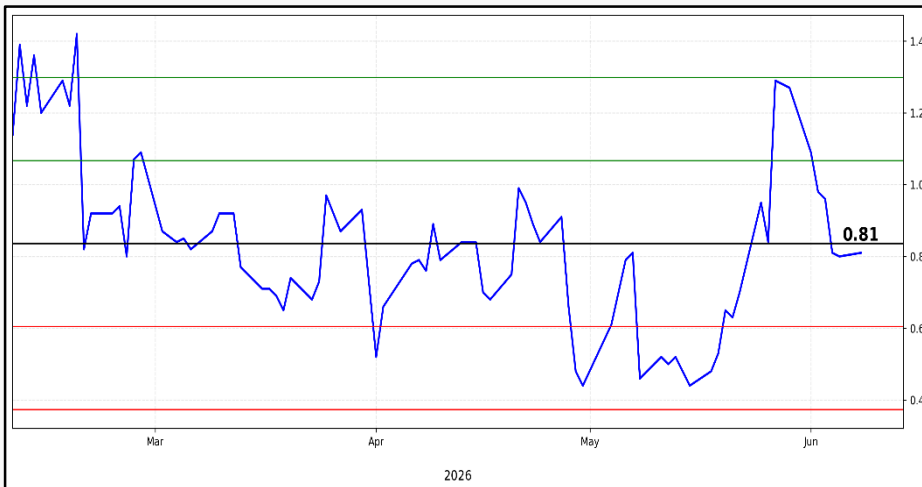
### Nifty



### Bank Nifty



### Fin Nifty



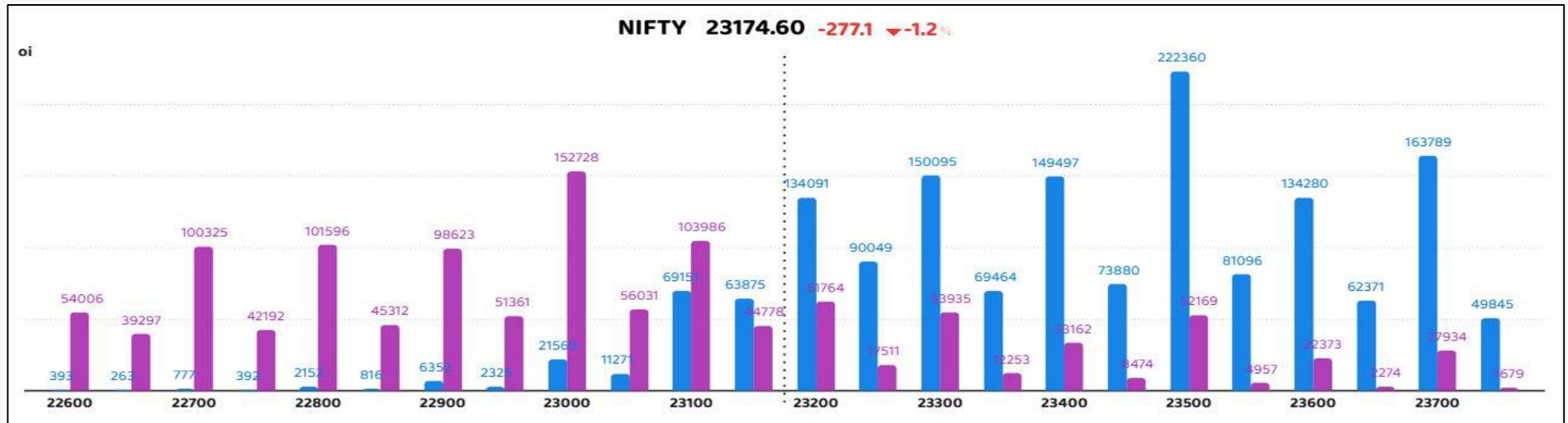
### Midcap Select Nifty



*On the day immediately post expiration, PCR values will differ due to the way open interest data for the expired series is treated for the PCR calculation*

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

Call ■ Put ■



For Nifty, the 23,500 Call and 23,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 55,000 Call and the 55,000 Put saw the most amount of open interest.

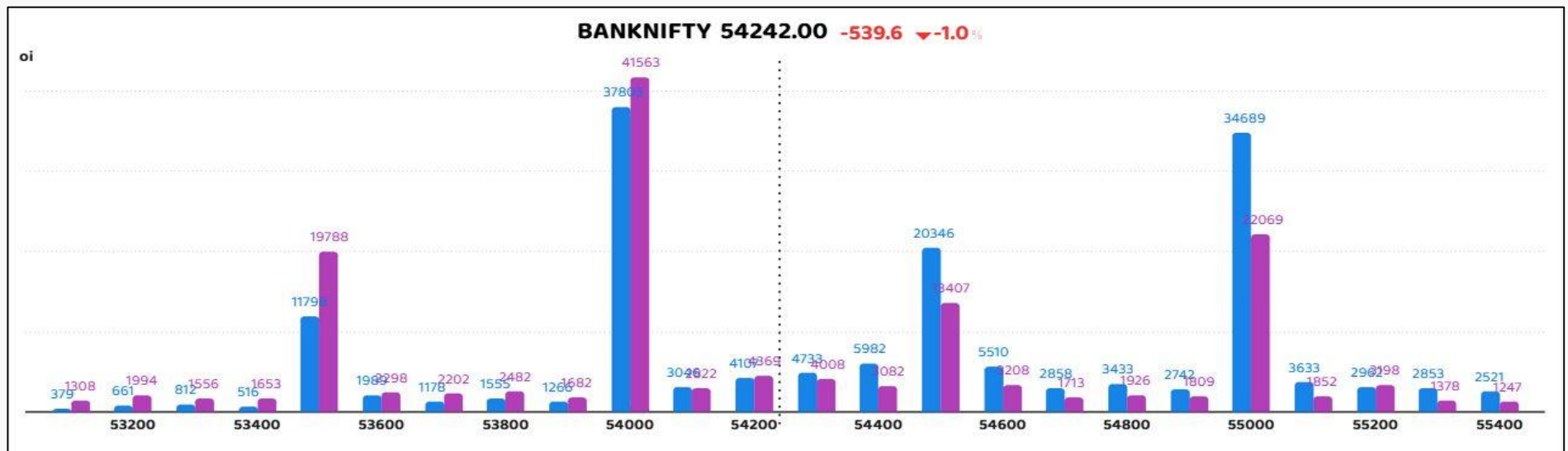
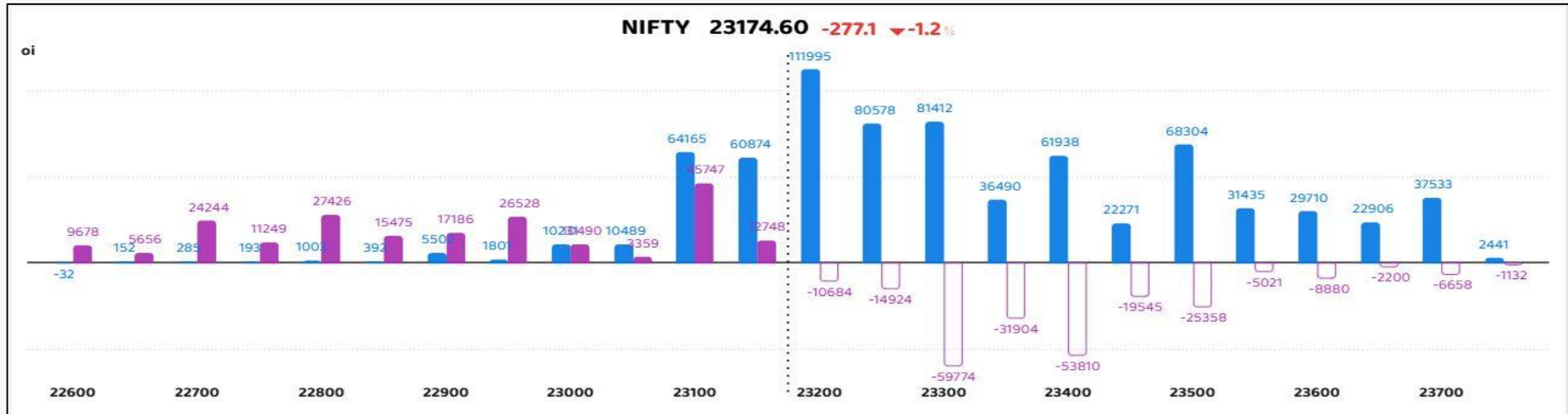


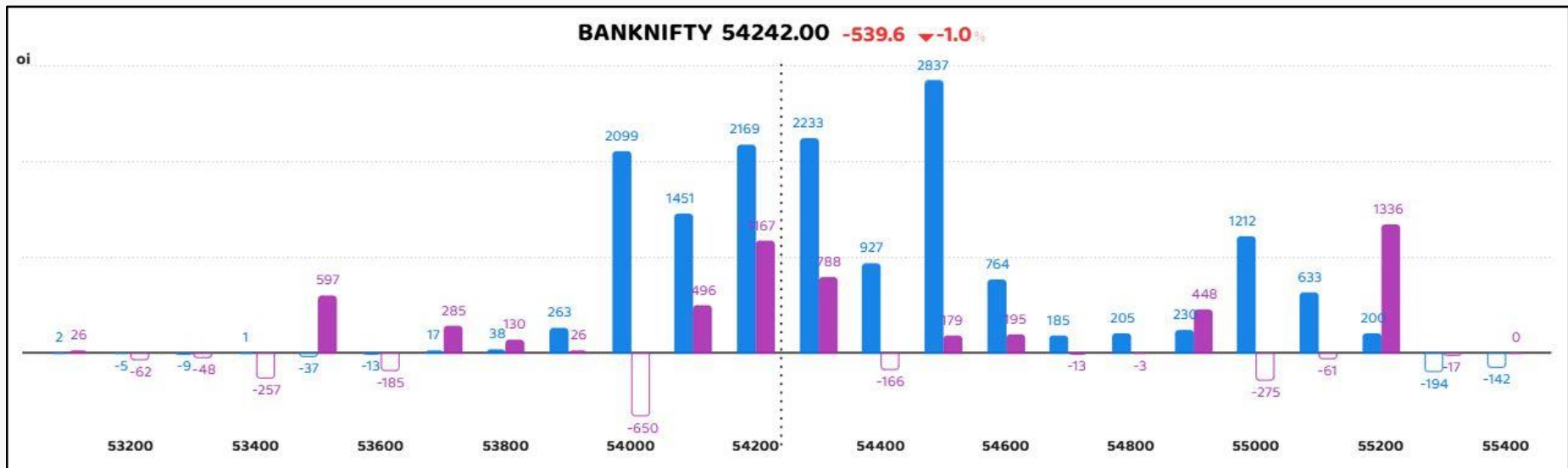
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23,200 Call and the 23,300 Put



For the Bank Nifty, the biggest open interest changes were seen at the 54,500 Call & the 54,200 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
VEDANTA LTD	304.3	-3.6	44.2	47.4	9.2	91.6
BHARAT HEAVY ELE	386.3	-0.2	36.3	45.1	5.2	77.8
TECH MAHINDRA LT	1503.4	1.3	29.3	39.1	3.2	72.5
TATA CONSULTANCY	2151.4	-2.2	31.9	44.6	1.6	70.4
HDFC ASSET MANAG	2453.0	-1.7	31.4	43.3	5.1	69.0

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ASHOK LEYLAND	141.0	-2.9	37.0	734.8	18.5	2.6
ADITYA BIRLA CAP	344.0	-3.8	33.6	658.6	8.2	3.9
INDUS TOWERS LTD	426.2	-0.8	24.6	51.0	22.6	7.1
REC LTD	343.4	-0.2	25.5	244.9	8.0	7.4
GAIL INDIA LTD	168.6	0.7	24.8	91.4	19.4	7.5

## Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INDIAN RAILWAY F	94.7	-1.8	154.3	154.3	9.6	100.0
VEDANTA LTD	304.3	-3.6	44.2	47.4	9.2	97.2
L&T FINANCE LTD	261.7	-2.6	39.6	53.0	23.8	92.1
TATA CONSULTANCY	2151.4	-2.2	31.9	44.6	1.6	91.8
RELIANCE INDUSTR	1263.3	-2.2	25.9	53.2	1.4	91.5

## Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ADANI ENERGY SOL	1570.4	-0.5	14.0	70.1	14.0	0.0
KAYNES TECHNOLOG	3027.5	-3.0	31.4	118.5	30.3	4.1
INDUS TOWERS LTD	426.2	-0.8	24.6	51.0	22.6	5.8
INDIAN ENERGY EX	119.0	-2.8	28.3	76.3	8.0	6.9
DIVI LABS LTD	6521.0	-1.5	20.5	34.9	4.8	8.0

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PIIND	2,680.9	-1.4	6,448.0	1,151.0	5.6
MANKIND	2,357.4	0.9	9,071.0	1,699.0	5.3
ONGC	264.6	0.0	20,056.0	3,778.0	5.3
GLENMARK	2,176.5	0.5	8,332.0	1,618.0	5.1
MAZDOCK	2,389.0	-1.4	12,999.0	2,606.0	5.0

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
MFSL	1,577.5	-1.7	1,511.0	2,627.0	1.7
JSWSTEEL	1,260.7	-1.8	3,981.0	6,602.0	1.7
LODHA	870.9	-2.6	3,460.0	5,021.0	1.5
POLYCAB	9,495.5	-2.1	8,121.0	8,964.0	1.1
SAIL	183.8	-3.5	2,780.0	2,970.0	1.1

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
PATANJALI	420.0	-0.1	8,589.0	7,887.0	100.0
ASHOKLEY	141.0	-2.9	34,501.0	31,340.0	100.0
WIPRO	181.8	-8.4	66,661.0	65,764.0	100.0
GLENMARK	2,176.5	0.5	10,181.0	10,054.0	100.0
CONCOR	445.4	-1.2	11,167.0	10,514.0	100.0

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
NATIONALUM	378.2	-4.4	10,772.0	10,118.0	100.0
PATANJALI	420.0	-0.1	6,804.0	6,594.0	100.0
DIVISLAB	6,521.0	-1.5	13,443.0	12,294.0	100.0
FEDERALBNK	304.6	0.1	9,463.0	8,515.0	100.0
GLENMARK	2,176.5	0.5	6,925.0	6,899.0	100.0

**Call Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
FORTIS	989.0	2.1	36,009.0	45,210.0	79.6
FEDERALBNK	304.6	0.1	40,089.0	75,544.0	53.1
WIPRO	181.8	-8.4	65,411.0	162,168.0	40.3
NATIONALUM	378.2	-4.4	20,831.0	57,162.0	36.4
VOLTAS	1,276.2	-1.7	21,754.0	61,365.0	35.5

**Put Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
FORTIS	989.0	2.1	10,204.0	14,201.0	71.9
LAURUSLABS	1,404.7	-2.9	8,479.0	16,992.0	49.9
WIPRO	181.8	-8.4	38,453.0	77,670.0	49.5
NATIONALUM	378.2	-4.4	10,728.0	23,004.0	46.6
FEDERALBNK	304.6	0.1	15,559.0	38,449.0	40.5

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

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
SAIL	183.8	-3.5	3,773.0	2,095.6	1.8
CONCOR	445.4	-1.2	11,167.0	6,212.0	1.8
MCX	2,823.8	1.0	24,147.0	13,711.6	1.8
DIVISLAB	6,521.0	-1.5	16,313.0	9,933.6	1.6
POWERINDIA	35,010.0	-5.0	18,078.0	11,410.6	1.6

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

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
NHPC	73.5	-1.9	10,915.0	5,553.4	2.0
DIVISLAB	6,521.0	-1.5	13,443.0	7,328.0	1.8
ALKEM	5,356.5	2.0	3,347.0	1,919.2	1.7
SAIL	183.8	-3.5	2,150.0	1,289.8	1.7
PATANJALI	420.0	-0.1	6,804.0	4,209.6	1.6

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
FORTIS	989.0	2.1	36,009.0	6,434.0	5.6
SAIL	183.8	-3.5	2,780.0	1,103.4	2.5
FEDERALBNK	304.6	0.1	40,089.0	16,003.2	2.5
MAXHEALTH	1,007.4	3.1	41,463.0	21,053.9	2.0
POWERGRID	290.3	1.6	33,227.0	19,796.4	1.7

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SAIL	183.8	-3.5	2,970.0	531.0	5.6
FORTIS	989.0	2.1	10,204.0	2,427.4	4.2
FEDERALBNK	304.6	0.1	15,559.0	7,165.1	2.2
WIPRO	181.8	-8.4	38,453.0	26,989.8	1.4
UNIONBANK	165.2	-1.1	5,036.0	3,633.6	1.4

## 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
ADANIANT	3000	1649442	1.0%	2970	2900	599769	-2.4%	JIOFIN	250	8084000	9.2%	229	290	3637800	26.7%
ADANIPTS	1900	1384625	5.3%	1805	1800	550050	-0.3%	JSWSTEEL	1300	497475	3.1%	1261	1250	380700	-0.8%
APOLLOHOSP	8500	171000	1.7%	8359	8000	94500	-4.3%	KOTAKBANK	400	6344000	6.1%	377	370	3924000	-1.9%
ASIANPAINT	2700	910500	1.5%	2659	2300	323250	-13.5%	LT	4000	1135575	3.2%	3876	4000	792400	3.2%
AXISBANK	1300	4334375	2.5%	1268	1300	966875	2.5%	M&M	3200	946200	7.9%	2966	3000	503600	1.1%
BAJAJ-AUTO	11000	281850	7.5%	10231	10000	93375	-2.3%	MARUTI	14000	209250	8.4%	12912	12500	100600	-3.2%
BAJAJFINSV	1780	1284250	6.3%	1675	1700	605000	1.5%	MAXHEALTH	1100	1204875	9.2%	1007	950	277725	-5.7%
BAJFINANCE	900	3918750	3.3%	871	900	1487250	3.3%	NESTLEIND	1450	805000	3.7%	1399	1300	160000	-7.1%
BEL	450	6529350	9.0%	413	400	3608100	-3.1%	NTPC	400	11433000	10.4%	362	400	2196000	10.4%
BHARTIARTL	1900	2776850	4.8%	1813	1800	1036450	-0.7%	ONGC	300	11306250	13.4%	265	280	4036500	5.8%
CIPLA	1400	474000	0.9%	1388	1280	560625	-7.8%	POWERGRID	300	7524000	3.3%	290	300	2152700	3.3%
COALINDIA	480	6081750	3.2%	465	460	5436450	-1.1%	RELIANCE	1400	10584500	10.8%	1263	1300	4534500	2.9%
DRREDDY	1340	970000	5.0%	1276	1200	750000	-5.9%	SBILIFE	1900	409875	7.7%	1764	1700	333750	-3.6%
EICHERMOT	8000	214700	13.5%	7050	6800	237700	-3.5%	SBIN	1000	11645250	1.8%	982	1000	3866250	1.8%
ETERNAL	260	8378375	4.7%	248	250	4425625	0.7%	SHRIRAMFIN	1000	2284425	11.5%	897	900	1046100	0.4%
GRASIM	3200	224500	4.9%	3050	3000	193000	-1.6%	SUNPHARMA	1900	2648450	6.2%	1789	1800	1213100	0.6%
HCLTECH	1200	1270150	4.2%	1151	1060	585200	-7.9%	TATACONSUM	1300	924550	17.4%	1107	1100	853600	-0.6%
HDFCBANK	800	19650950	8.3%	739	750	7000950	1.5%	TMPV	400	5687200	2.8%	389	380	1721600	-2.3%
HDFCLIFE	600	2894100	6.3%	565	585	1879900	3.6%	TATASTEEL	220	18276500	8.5%	203	200	6468000	-1.3%
HINDALCO	1110	1975400	4.5%	1062	1000	791700	-5.9%	TCS	2300	4021150	6.9%	2151	2300	1615775	6.9%
HINDUNILVR	2300	1432200	9.0%	2110	2100	595500	-0.5%	TECHM	1560	1720200	3.8%	1503	1300	1128000	-13.5%
ICICIBANK	1280	4805500	2.4%	1250	1300	2489200	4.0%	TITAN	4200	426475	0.2%	4192	4000	228025	-4.6%
INDIGO	4600	763200	5.5%	4360	4400	244350	0.9%	TRENT	3000	556350	10.1%	2724	2600	220350	-4.6%
INFY	1300	5268800	9.5%	1188	1200	1870000	1.0%	ULTRACEMCO	12000	102300	11.2%	10795	10700	78700	-0.9%
ITC	302	17356800	8.1%	279	292	3640000	4.5%	WIPRO	210	34836000	15.5%	182	190	13848000	4.5%

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

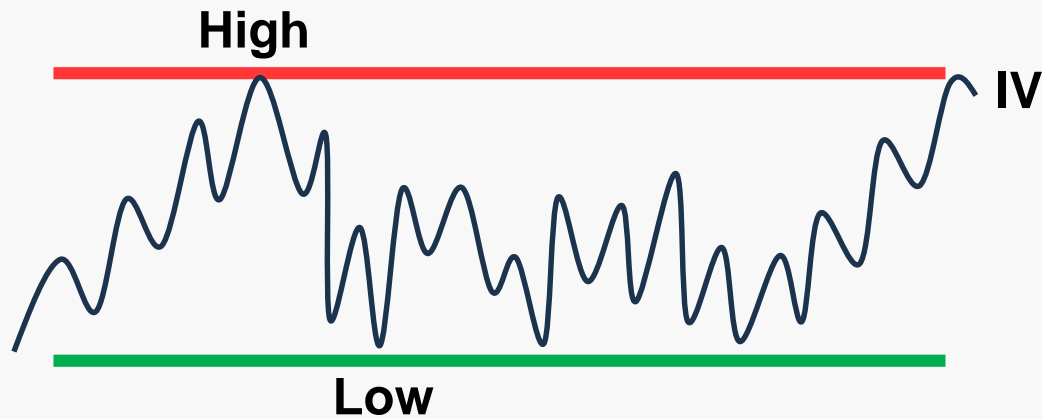


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



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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