



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,425	1.9%▼
Open Interest (OI)	2,19,46,730	8.7%▲
Change in OI (abs)	2,19,46,730	17,47,655▲
Premium / Discount (Abs)	45	8▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	53,722	1.61%▼
Open interest (OI)	27,84,720	4.2%▲
Change in OI (abs)	27,84,720	1,11,750▲
Premium / Discount (Abs)	167	7▲
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	19.28	0.73▲
Nifty ATM IV (%)	18.95	0.92▲
Bank Nifty ATM IV (%)	23.18	1.48▲
PCR (Nifty)	0.93	0.17▲
PCR (Bank Nifty)	0.74	0.07▼

The FII Long Ratio in Index Futures **drop** to 11%, **down** from 11.6 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BIOCON	3,40,77,500	5.1%	404.4	3.0%
OIL	1,89,93,800	5.0%	492.7	8.1%
NATIONALUM	5,51,77,500	3.2%	395.75	0.3%
DALBHARAT	35,22,350	2.1%	1782.3	0.1%
ONGC	10,25,28,000	1.8%	295.6	5.1%

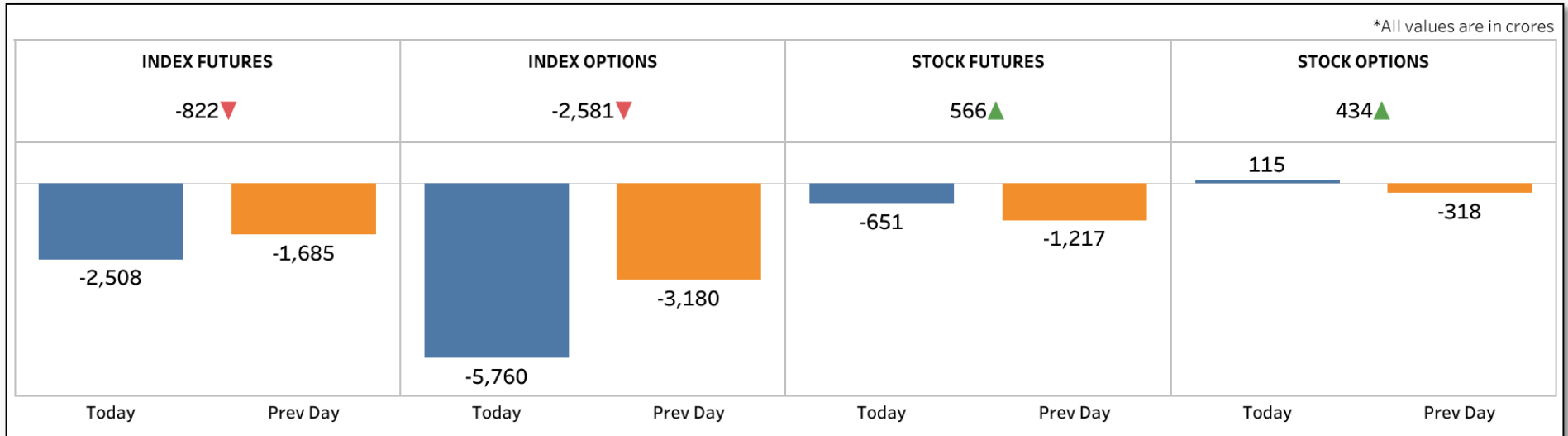
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KAYNES	35,67,550	13.8%	3958.6	-8.5%
INDHOTEL	2,57,11,000	9.1%	637	-4.0%
KPITTECH	96,63,400	7.1%	697.65	-3.4%
ADANIENSOL	2,27,94,075	7.0%	1291	-4.2%
DIXON	36,76,150	6.6%	10119	-6.3%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PIDILITIND	80,17,000	-6.7%	1456.1	0.9%
GODREJCP	1,33,39,000	-2.5%	1031.2	2.3%
HINDZINC	3,48,21,850	-1.8%	645.9	2.4%
CANBK	22,95,81,000	-1.6%	130.5	0.7%
AUROPHARMA	1,86,16,400	-0.1%	1490	0.1%

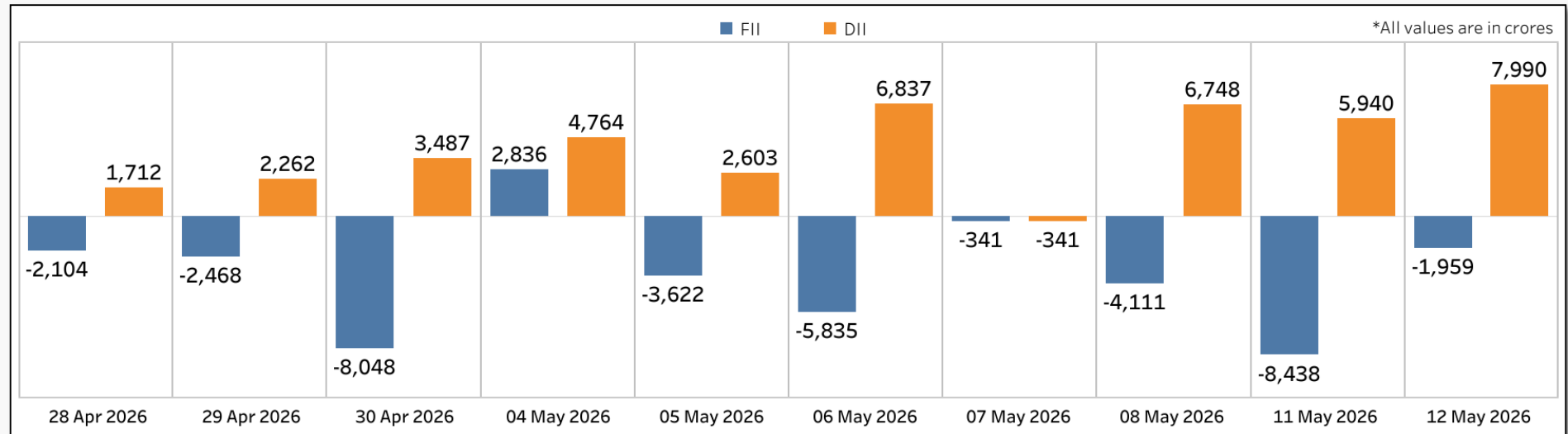
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BDL	37,84,825	-7.5%	1331.8	-5.1%
BLUESTARCO	32,60,725	-6.4%	1636.4	-1.7%
MCX	1,13,51,100	-6.3%	3161	-1.2%
DABUR	2,51,95,000	-5.1%	473.8	-0.1%
NAM-INDIA	34,73,750	-5.0%	1041.6	-2.6%

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

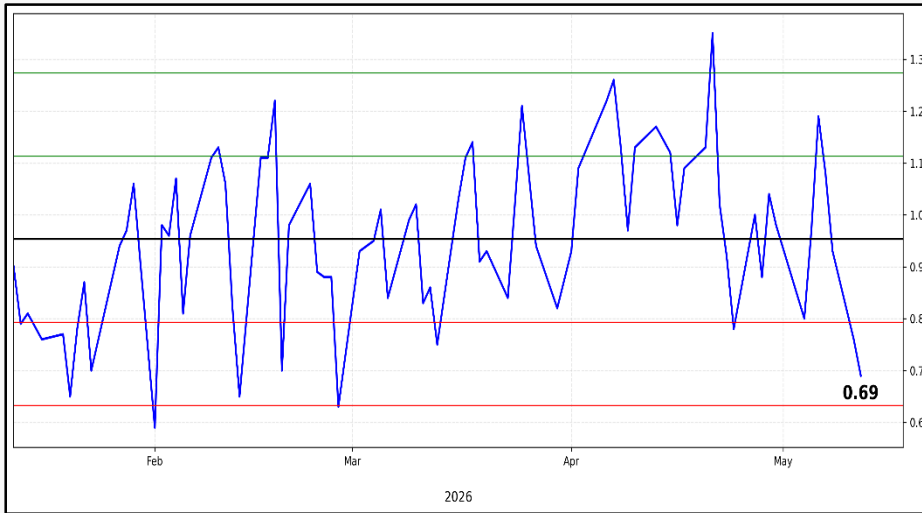
Daily Net Open Interest Change



DII and FII Daily Cash Market Flows



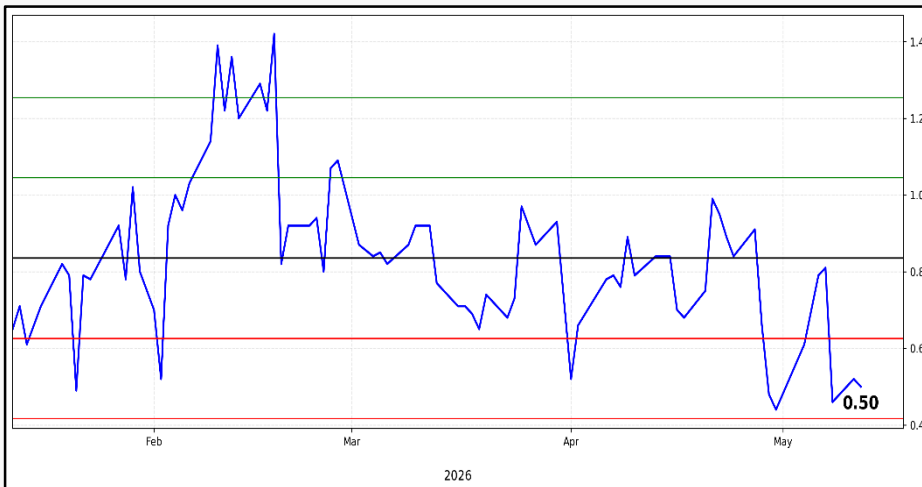
Nifty



Bank Nifty



Fin Nifty



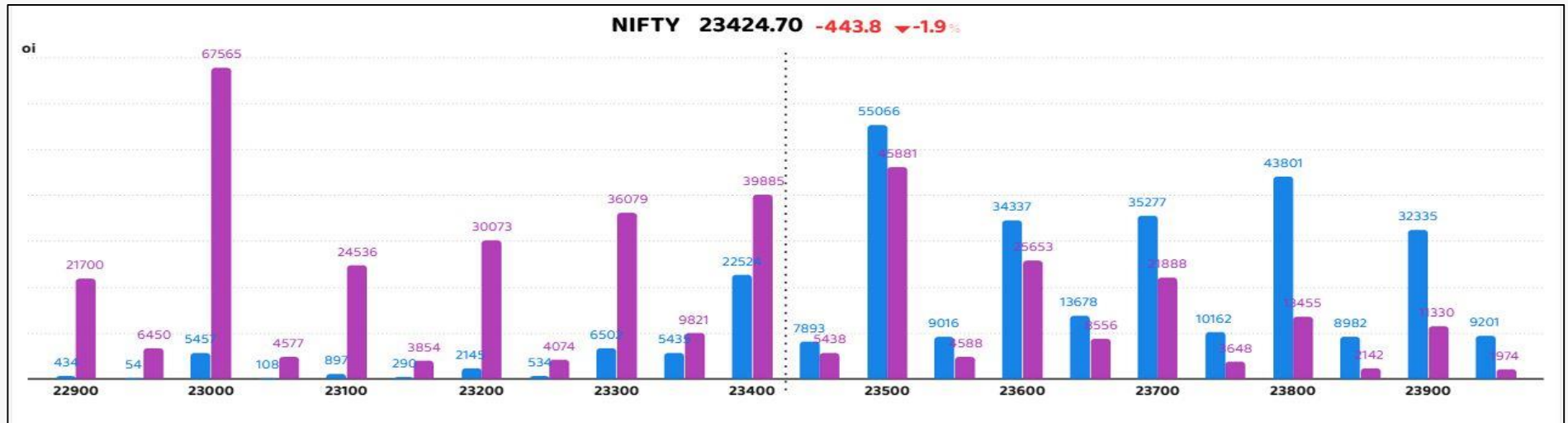
Midcap Select Nifty



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 54,000 Call and the 54,000 Put saw the most amount of open interest.

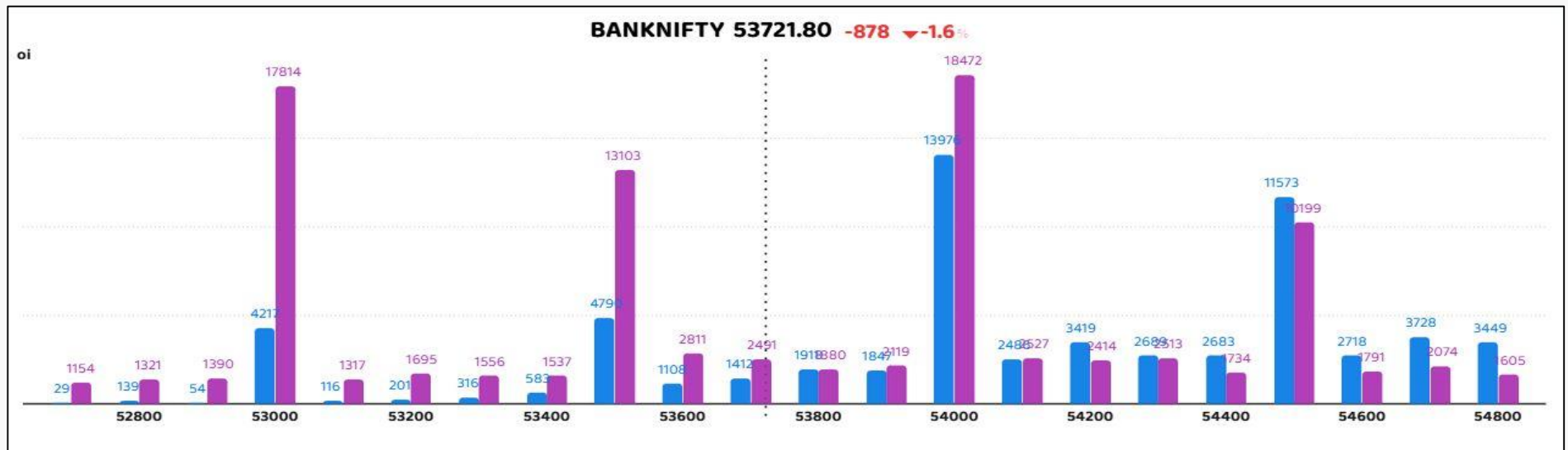
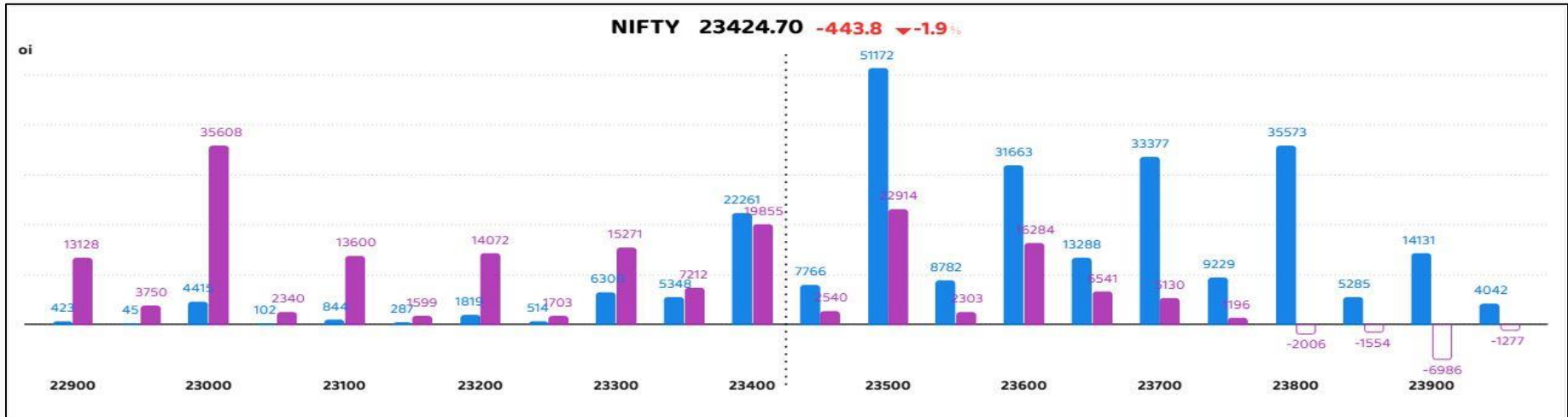


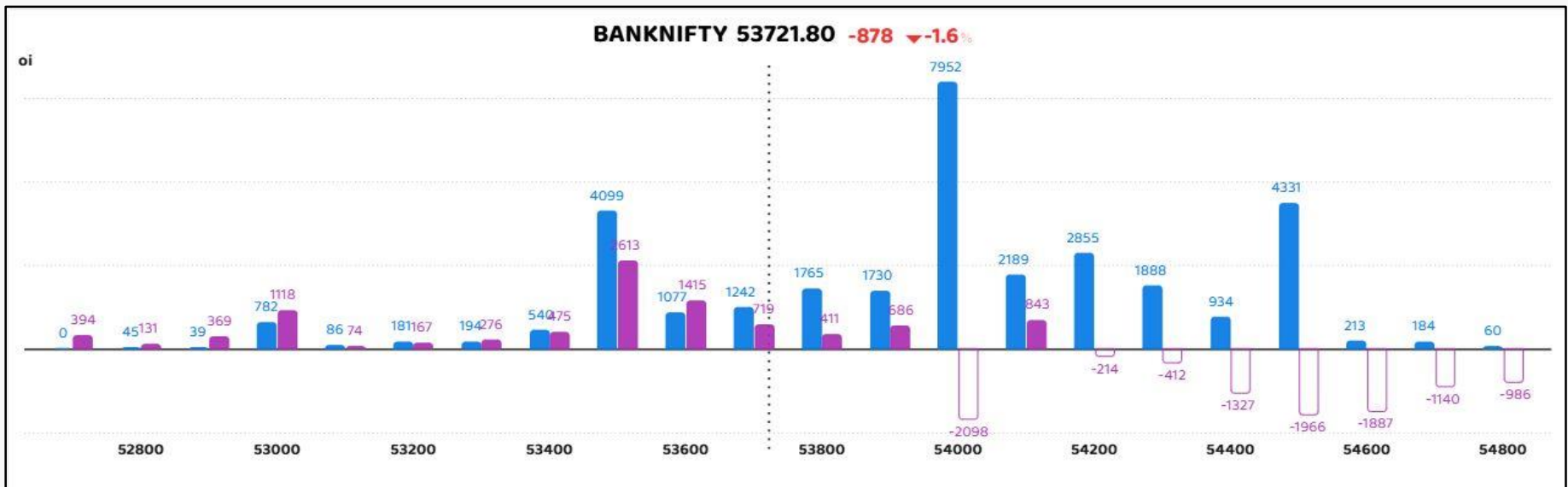
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23,500 Call and the 23,000 Put



For the Bank Nifty, the biggest open interest changes were seen at the 54,000 Call & the 53,500 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
VEDANTA LTD	305.1	2.2	44.9	46.2	9.2	96.4
SIEMENS LTD	3574.4	-0.9	43.2	45.6	23.2	89.4
APOLLO HOSPITALS	8022.5	-0.7	27.1	29.7	13.5	84.5
DR REDDY'S LABS	1270.0	-0.8	34.5	39.1	10.9	83.7
COLGATE PALMOLIV	2125.2	-0.7	29.6	33.8	9.7	82.5

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ASHOK LEYLAND	156.0	-3.5	38.7	734.8	18.5	2.8
ADITYA BIRLA CAP	341.2	-3.3	33.8	658.6	8.2	3.9
CHOLAMANDALAM IN	1561.0	-3.9	32.7	186.8	19.6	7.8
HINDALCO INDS	1041.4	1.8	31.7	254.2	12.3	8.0
REC LTD	344.4	-2.1	30.8	244.9	8.0	9.6

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
DR REDDY'S LABS	1270.0	-0.8	34.5	39.1	10.9	99.6
VEDANTA LTD	305.1	2.2	44.9	46.2	9.2	98.5
CIPLA LTD	1292.3	-1.0	29.4	118.5	1.3	98.5
SIEMENS LTD	3574.4	-0.9	43.2	45.6	23.2	98.3
NATIONAL ALUMIN	394.1	0.3	47.4	71.6	21.4	98.1

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
WIPRO LTD	189.6	-3.6	16.4	67.3	5.0	0.8
BSE LTD	3851.9	-1.7	37.3	55.9	32.9	8.8
VODAFONE IDEA LT	11.9	-2.4	47.7	212.9	10.0	18.7
INDIAN ENERGY EX	127.2	-2.7	32.1	76.3	8.0	28.4
AUROBINDO PHARMA	1488.2	0.1	27.8	40.1	21.5	30.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
FORTIS	951.2	-2.4	9,291.0	1,898.0	4.9
WAAREEENER	3,125.2	-2.6	27,582.0	7,094.0	3.9
ZYDUSLIFE	930.6	-2.7	8,913.0	2,372.0	3.8
ONGC	294.6	4.8	176,121.0	50,373.0	3.5
ITC	300.7	-1.7	51,511.0	14,781.0	3.5

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
DIVISLAB	6,644.0	-1.0	5,482.0	6,791.0	1.2
SRF	2,721.2	-2.8	6,307.0	7,721.0	1.2
OFSS	9,010.5	-2.5	7,025.0	8,205.0	1.2
DLF	569.2	-3.6	17,112.0	19,933.0	1.2
CAMS	784.6	-3.8	6,311.0	6,876.0	1.1

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
BLUESTARCO	1,630.6	-1.8	8,374.0	7,636.0	100.0
TATASTEEL	212.0	0.0	34,195.0	33,845.0	100.0
WAAREEENER	3,125.2	-2.6	25,733.0	25,698.0	100.0
NATIONALUM	394.0	0.3	17,327.0	16,723.0	100.0
UNIONBANK	162.2	-1.0	18,051.0	16,887.0	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
LAURUSLABS	1,268.3	0.1	7,777.0	7,584.0	100.0
TATASTEEL	212.0	0.0	23,120.0	23,018.0	100.0
SUNPHARMA	1,845.7	-1.4	25,481.0	24,908.0	100.0
LUPIN	2,245.4	-0.5	9,679.0	9,939.0	97.4
BHARTIARTL	1,756.8	-0.2	21,031.0	21,779.0	96.6

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
INDHOTEL	634.4	-4.1	37,922.0	32,690.0	100.0
OBEROIRLTY	1,626.7	-0.5	12,928.0	13,887.0	93.1
ONGC	294.6	4.8	176,121.0	194,736.0	90.4
BIOCON	402.4	3.1	40,712.0	52,570.0	77.4
JSWENERGY	518.0	-7.0	51,274.0	77,482.0	66.2

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
OIL	491.0	7.7	25,569.0	25,371.0	100.0
INDHOTEL	634.4	-4.1	21,273.0	17,004.0	100.0
JSWENERGY	518.0	-7.0	33,398.0	20,936.0	100.0
DLF	569.2	-3.6	19,933.0	22,434.0	88.9
BIOCON	402.4	3.1	15,202.0	18,671.0	81.4

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
BRITANNIA	5,334.0	-1.4	26,482.0	7,487.7	3.5
LUPIN	2,245.4	-0.5	25,874.0	7,773.1	3.3
SBIN	974.6	0.1	205,785.0	66,670.5	3.1
PIDILITIND	1,453.0	1.1	11,502.0	3,906.3	2.9
TITAN	4,055.3	-3.6	45,917.0	19,042.8	2.4

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
MFSL	1,653.7	-2.5	3,541.0	1,529.4	2.3
PIDILITIND	1,453.0	1.1	5,008.0	2,413.3	2.1
LUPIN	2,245.4	-0.5	9,679.0	4,851.2	2.0
NUVAMA	1,548.2	-3.2	2,784.0	1,463.0	1.9
BRITANNIA	5,334.0	-1.4	10,165.0	5,361.9	1.9

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
OIL	491.0	7.7	69,723.0	11,146.0	6.3
INDHOTEL	634.4	-4.1	37,922.0	6,588.3	5.8
ONGC	294.6	4.8	176,121.0	39,344.6	4.5
MFSL	1,653.7	-2.5	7,855.0	2,095.8	3.7
JSWENERGY	518.0	-7.0	51,274.0	14,184.0	3.6

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
OIL	491.0	7.7	25,569.0	3,443.0	7.4
JSWENERGY	518.0	-7.0	33,398.0	4,859.6	6.9
MFSL	1,653.7	-2.5	6,659.0	1,156.8	5.8
INDHOTEL	634.4	-4.1	21,273.0	4,391.0	4.8
OBEROIRLTY	1,626.7	-0.5	8,541.0	1,770.5	4.8

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	2500	1929087	3.9%	2405	2500	805563	3.9%	JIOFIN	260	15991750	12.8%	230	250	5066600	8.5%
ADANIPTS	1800	1155200	6.6%	1688	1500	888250	-11.1%	JSWSTEEL	1300	974700	3.8%	1252	1240	442800	-1.0%
APOLLOHOSP	8500	183625	6.0%	8023	7000	70500	-12.7%	KOTAKBANK	400	6838000	6.4%	376	360	3744000	-4.3%
ASIANPAINT	2600	886500	3.8%	2506	2300	484250	-8.2%	LT	4000	1151325	3.7%	3857	3900	599375	1.1%
AXISBANK	1300	3163750	3.2%	1260	1200	1294375	-4.8%	M&M	3400	601200	7.1%	3176	3100	694600	-2.4%
BAJAJ-AUTO	10600	239325	2.0%	10397	10000	170100	-3.8%	MARUTI	14000	312250	6.3%	13172	12500	113100	-5.1%
BAJAJFINSV	1820	868500	4.3%	1745	1680	309500	-3.7%	MAXHEALTH	1100	791700	8.1%	1018	1000	368550	-1.7%
BAJFINANCE	1000	2738250	10.6%	904	900	1829250	-0.5%	NESTLEIND	1480	612500	0.8%	1469	1400	815000	-4.7%
BEL	440	5916600	5.6%	417	440	3247575	5.6%	NTPC	400	12916500	1.9%	393	400	2422500	1.9%
BHARTIARTL	1900	3086550	8.2%	1757	1800	928625	2.5%	ONGC	300	14897250	1.9%	295	280	5195250	-4.9%
CIPLA	1400	949875	8.3%	1292	1300	908250	0.6%	POWERGRID	320	6232000	4.5%	306	300	1865800	-2.1%
COALINDIA	500	6266700	8.0%	463	450	2292300	-2.8%	RELIANCE	1500	8690500	10.0%	1364	1400	2015500	2.6%
DRREDDY	1400	2606875	10.2%	1270	1250	875000	-1.6%	SBILIFE	1860	1341000	1.4%	1834	1860	256125	1.4%
EICHERMOT	7500	132900	5.2%	7126	6800	105000	-4.6%	SBIN	1100	24567000	12.9%	975	1000	5292750	2.6%
ETERNAL	260	15544250	8.3%	240	250	5111900	4.2%	SHRIRAMFIN	1100	3452625	18.2%	930	900	848925	-3.3%
GRASIM	3000	264500	3.3%	2903	2800	110750	-3.5%	SUNPHARMA	1900	3074750	2.9%	1846	1800	910000	-2.5%
HCLTECH	1300	4551050	13.5%	1146	1200	1661100	4.7%	TATACONSUM	1300	603900	3.8%	1253	1200	608850	-4.2%
HDFCBANK	800	16108400	6.6%	750	800	5536850	6.6%	TMPV	360	3784000	6.9%	337	350	1570400	3.9%
HDFCLIFE	600	3300000	-0.3%	602	615	1205600	2.2%	TATASTEEL	210	17358000	-0.9%	212	210	14044250	-0.9%
HINDALCO	1050	758800	0.8%	1041	1050	628600	0.8%	TCS	2500	2490425	8.7%	2300	2200	759675	-4.4%
HINDUNILVR	2400	1504500	6.1%	2262	2300	718800	1.7%	TECHM	1500	1605000	7.7%	1393	1400	847200	0.5%
ICICIBANK	1300	5049800	4.8%	1240	1260	2451400	1.6%	TITAN	4500	994000	11.0%	4055	4300	351225	6.0%
INDIGO	4500	918300	7.1%	4202	4200	411450	0.0%	TRENT	4500	844400	11.1%	4051	4000	151500	-1.2%
INFY	1300	5180800	14.0%	1140	1100	1686400	-3.5%	ULTRACEMCO	13000	196250	12.9%	11516	12000	41550	4.2%
ITC	310	18051200	3.1%	301	290	4568000	-3.6%	WIPRO	210	19941000	10.8%	190	190	8178000	0.2%

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.

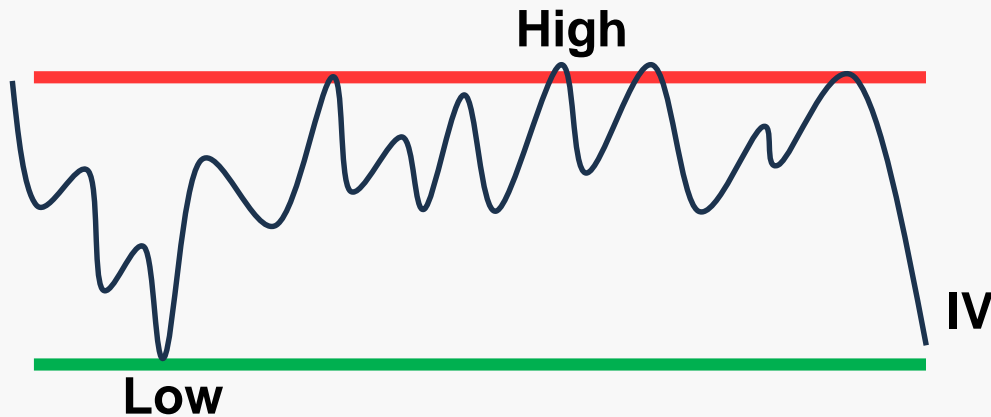


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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