



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,669	0.2% ▼
Open Interest (OI)	2,12,88,375	4.1% ▲
Change in OI (abs)	2,12,88,375	8,43,765 ▲
Premium / Discount (Abs)	-23	33 ▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	53,531	0.39% ▼
Open interest (OI)	29,36,880	2.8% ▲
Change in OI (abs)	29,36,880	80,640 ▲
Premium / Discount (Abs)	91	88 ▼
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	17.82	0.62 ▼
Nifty ATM IV (%)	15.66	0.91 ▼
Bank Nifty ATM IV (%)	19.38	1.63 ▼
PCR (Nifty)	1.00	0.24 ▼
PCR (Bank Nifty)	0.72	0.08 ▼

The FII Long Ratio in Index Futures drop to **11.8%**, down from **11.9 %** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
APOLLOHOSP	22,94,500	10.1%	8324	2.9%
PAGEIND	3,25,675	5.8%	38495	0.5%
360ONE	55,17,000	5.6%	1112.8	0.4%
AMBER	32,43,100	4.8%	7574	7.0%
INDUSTOWER	9,15,75,600	4.2%	433.45	1.1%

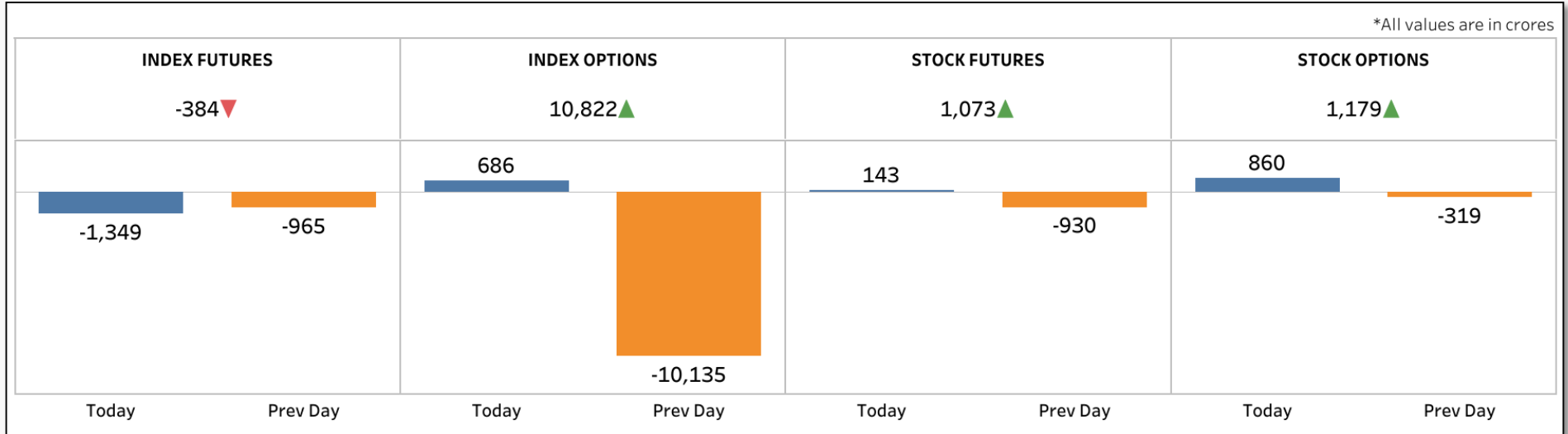
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BOSCHLTD	3,58,650	13.0%	35240	-4.6%
PIIND	39,57,275	10.4%	2730.5	-5.3%
MOTILALOFS	42,81,100	7.1%	844.6	-0.8%
ABCAPITAL	5,85,24,900	5.8%	350	-1.3%
MCX	1,06,88,525	3.5%	3331.7	-3.1%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
FORCEMOT	2,71,975	-15.2%	19374	1.4%
RVNL	6,61,26,475	-14.7%	271.05	0.4%
HCLTECH	4,60,15,300	-12.5%	1170	0.0%
COALINDIA	6,71,11,200	-11.8%	461.25	0.7%
PETRONET	3,38,54,200	-11.3%	270.55	1.7%

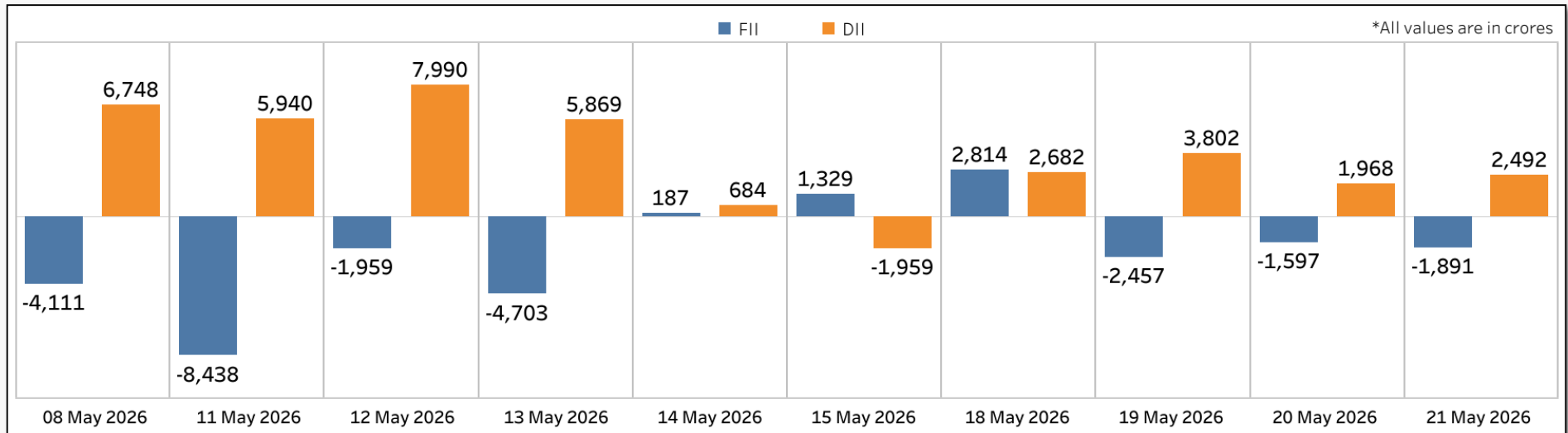
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MANKIND	47,25,200	-10.8%	2523.4	-2.7%
COLPAL	46,77,050	-10.2%	2158.6	-1.6%
SBICARD	2,86,23,200	-8.4%	619.1	-0.8%
NHPC	13,63,73,850	-6.6%	79	-0.5%
GODFRYPHLP	30,34,625	-6.2%	2319	-0.3%

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

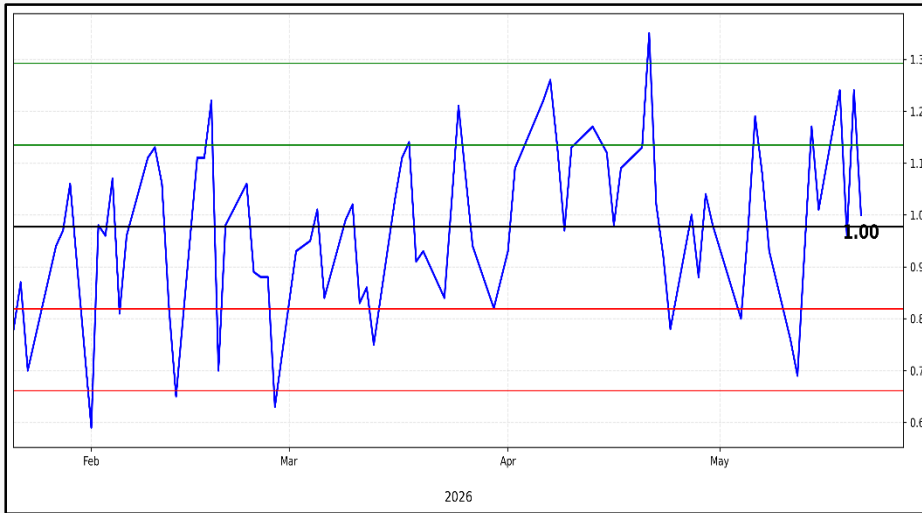
Daily Net Open Interest Change



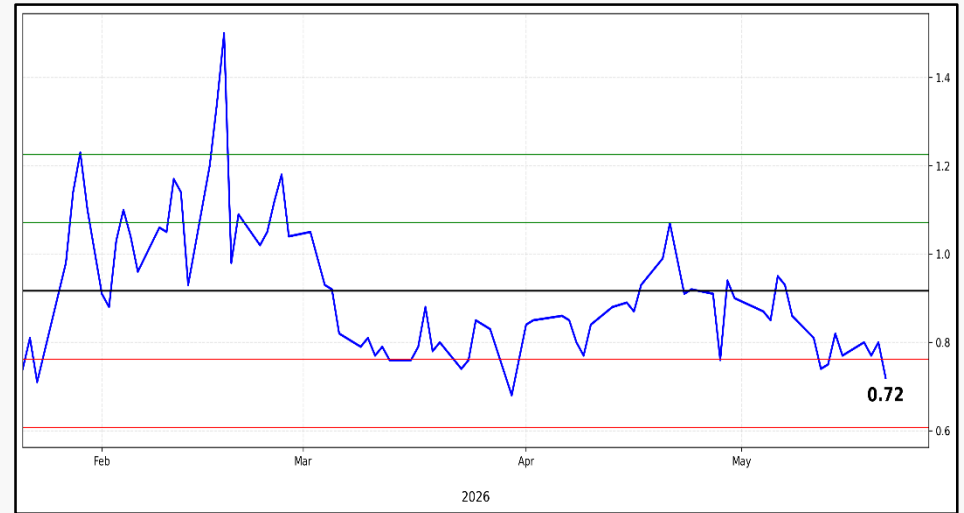
DII and FII Daily Cash Market Flows



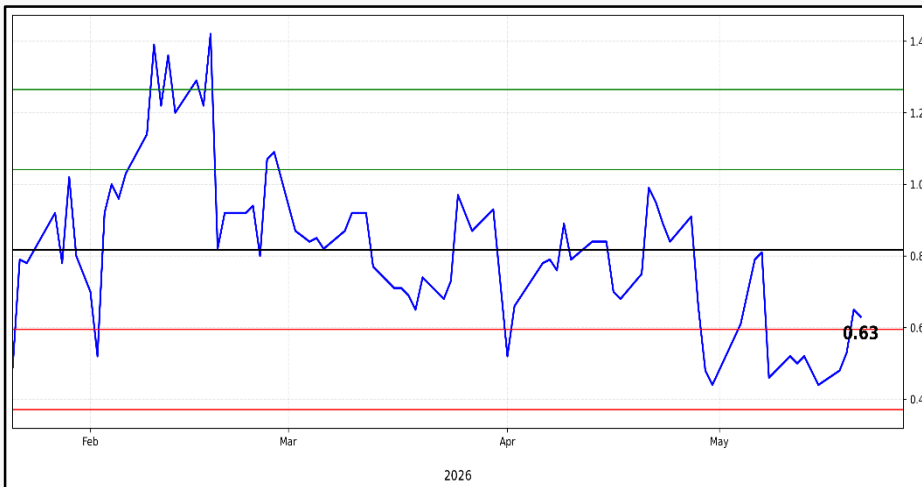
Nifty



Bank Nifty



Fin Nifty



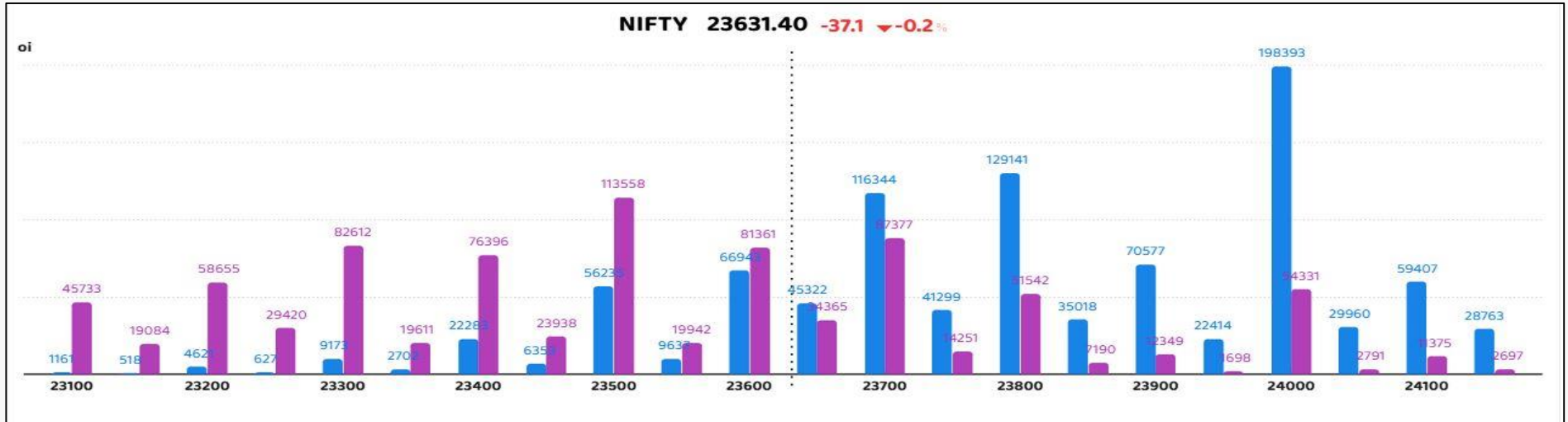
Midcap Select Nifty



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 24,000 Call and 23,500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 54,000 Call and the 53,000 Put saw the most amount of open interest.

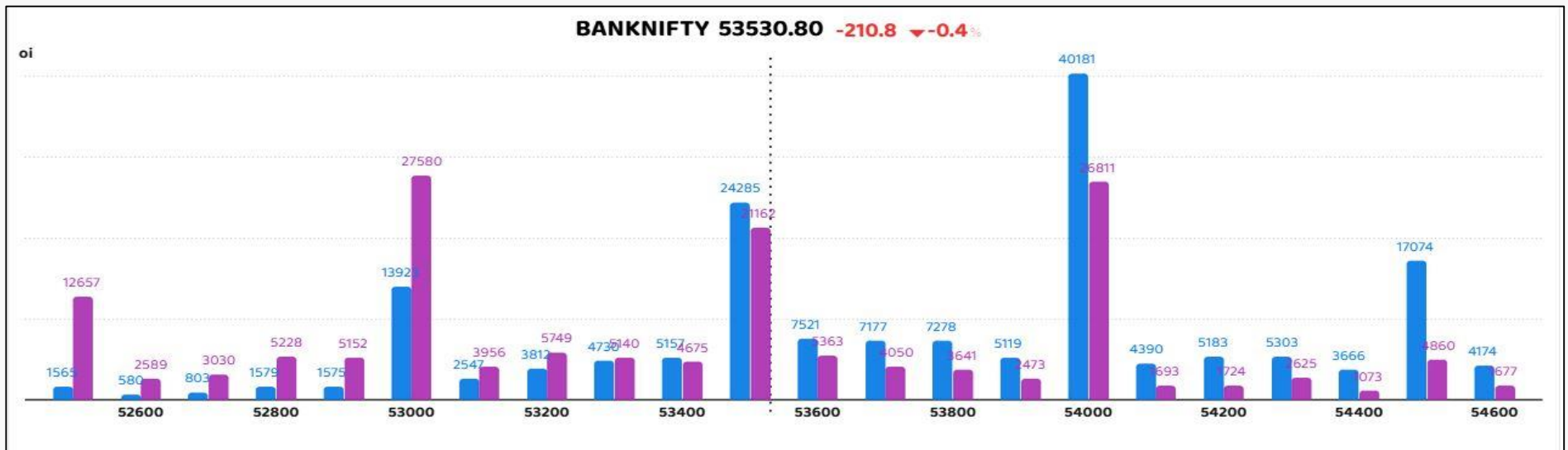
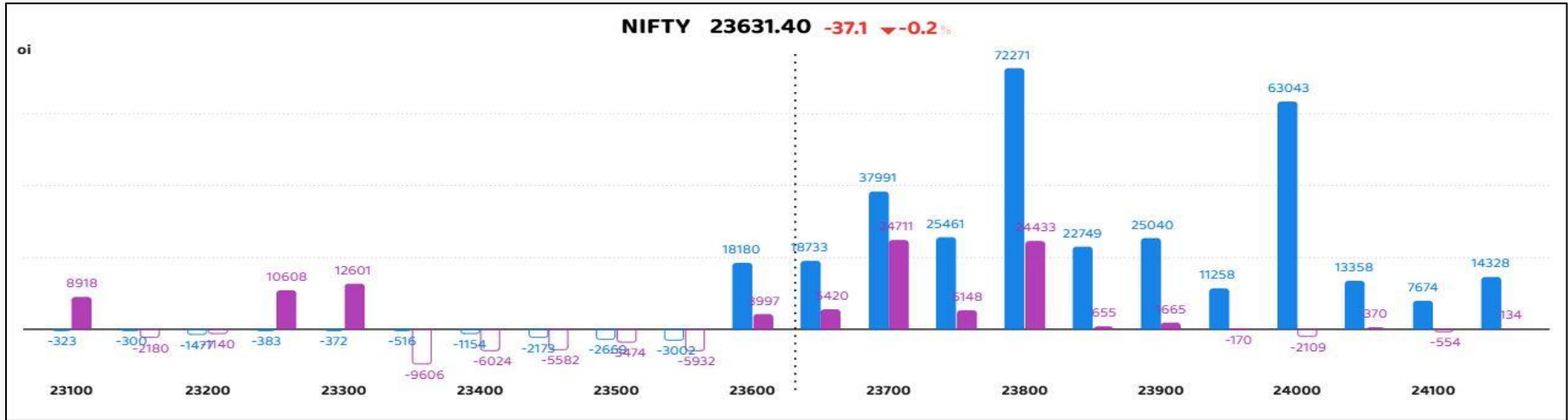


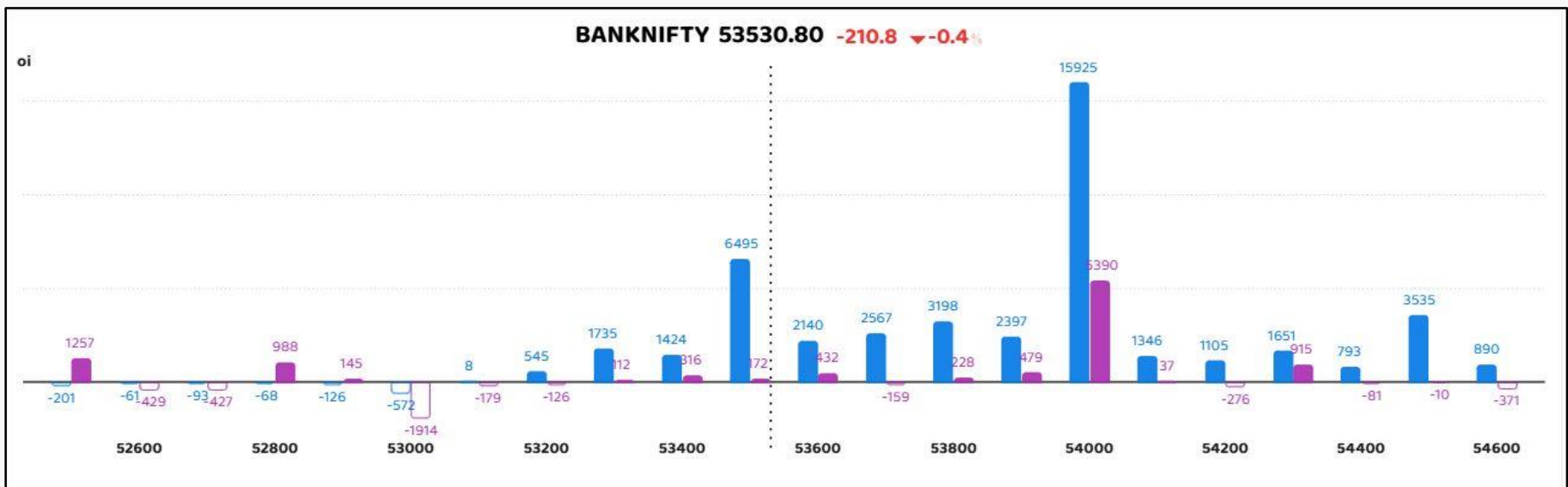
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23,800 Call and the 23,700 Put



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

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
TORRENT PHARMA	4469.2	0.9	31.0	31.9	15.4	94.6
VEDANTA LTD	329.8	-1.2	42.4	47.4	9.2	86.9
COLGATE PALMOLIV	2164.9	-0.9	29.9	33.8	9.7	84.0
DIVI LABS LTD	6858.0	-0.5	29.9	34.9	4.8	83.4
EICHER MOTORS	6892.0	0.6	33.8	39.3	7.6	82.8

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
WIPRO LTD	199.7	1.3	2.1	67.3	2.1	0.0
INDUS TOWERS LTD	431.8	0.9	23.6	51.0	23.4	0.7
ASHOK LEYLAND	154.5	0.6	40.4	734.8	18.5	3.1
ADITYA BIRLA CAP	349.4	-1.1	32.7	658.6	8.2	3.8
CHOLAMANDALAM IN	1504.0	-1.0	33.0	186.8	19.6	8.0

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
KAYNES TECHNOLOG	3174.9	5.8	67.3	118.5	30.3	99.4
TORRENT PHARMA	4469.2	0.9	31.0	31.9	15.4	98.7
ADANI ENERGY SOL	1342.2	-0.3	54.1	70.1	20.6	97.5
JUBILANT FOODWOR	435.7	-7.8	42.7	52.7	17.0	96.5
LIC INSURANCE CO	800.2	0.0	32.8	39.2	16.8	96.3

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
WIPRO LTD	199.7	1.3	2.1	67.3	2.1	0.0
INDUS TOWERS LTD	431.8	0.9	23.6	51.0	23.4	1.0
INDIAN ENERGY EX	127.1	1.1	28.8	76.3	8.0	7.7
BSE LTD	4186.9	-0.8	36.7	55.9	32.9	8.5
ONE 97 COMMUNICA	1155.6	0.2	34.0	124.0	28.3	19.1

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
WAAREENER	3,056.6	1.7	40,651.0	8,623.0	4.7
TORNTPHARM	4,469.2	0.9	12,945.0	2,803.0	4.6
GLENMARK	2,392.9	0.6	11,483.0	2,685.0	4.3
KPITTECH	750.9	0.0	20,294.0	4,833.0	4.2
FORTIS	967.3	-0.7	10,824.0	2,684.0	4.0

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
OFSS	9,730.5	0.3	11,375.0	14,260.0	1.3
TATASTEEL	208.6	0.8	82,327.0	88,283.0	1.1
BAJAJHLDNG	10,401.0	-0.6	1,987.0	1,972.0	1.0
RELIANCE	1,349.6	-0.7	340,580.0	332,049.0	1.0
PERSISTENT	5,019.0	-1.3	16,006.0	13,875.0	0.9

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
PRESTIGE	1,385.6	-0.2	5,452.0	5,390.0	100.0
POLYCAB	9,193.5	-0.1	18,190.0	17,261.0	100.0
GRASIM	3,154.5	6.2	13,266.0	10,417.0	100.0
DMART	4,137.2	-0.2	14,965.0	14,938.0	100.0
CDSL	1,199.8	-2.0	22,340.0	20,140.0	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
HDFCLIFE	614.4	1.5	12,728.0	12,010.0	100.0
AMBER	7,538.0	6.9	19,322.0	17,106.0	100.0
GRASIM	3,154.5	6.2	15,220.0	8,251.0	100.0
POWERINDIA	36,450.0	2.6	12,155.0	10,608.0	100.0
TATASTEEL	208.6	0.8	28,372.0	28,254.0	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
JUBLFOOD	435.6	-7.8	65,454.0	59,820.0	100.0
SAMMAANCAP	154.3	8.8	66,178.0	14,297.0	100.0
PIIND	2,740.4	-5.5	72,008.0	62,121.0	100.0
GRASIM	3,154.5	6.2	200,804.0	66,231.0	100.0
PAGEIND	38,380.0	0.2	46,087.0	33,021.0	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
SAMMAANCAP	154.3	8.8	31,884.0	9,389.0	100.0
MAXHEALTH	1,091.1	1.4	21,658.0	14,406.0	100.0
GRASIM	3,154.5	6.2	81,838.0	36,459.0	100.0
PAGEIND	38,380.0	0.2	29,809.0	20,266.0	100.0
APOLLOHOSP	8,308.5	2.8	81,604.0	69,010.0	100.0

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
BOSCHLTD	35,210.0	-4.4	15,756.0	4,518.8	3.5
PIIND	2,740.4	-5.5	18,822.0	6,187.6	3.0
ZYDUSLIFE	1,036.4	-0.4	15,383.0	5,090.3	3.0
AMBER	7,538.0	6.9	32,955.0	12,507.5	2.6
PAGEIND	38,380.0	0.2	5,973.0	2,429.6	2.5

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
GRASIM	3,154.5	6.2	15,220.0	4,636.4	3.3
PIIND	2,740.4	-5.5	10,715.0	3,746.7	2.9
AMBER	7,538.0	6.9	19,322.0	7,403.4	2.6
APOLLOHOSP	8,308.5	2.8	14,122.0	5,741.0	2.5
SAMMAANCAP	154.3	8.8	7,691.0	3,327.2	2.3

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
PAGEIND	38,380.0	0.2	46,087.0	2,368.2	19.5
GRASIM	3,154.5	6.2	200,804.0	11,045.9	18.2
SAMMAANCAP	154.3	8.8	66,178.0	4,714.9	14.0
BOSCHLTD	35,210.0	-4.4	84,648.0	6,636.4	12.8
APOLLOHOSP	8,308.5	2.8	161,230.0	17,953.1	9.0

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SAMMAANCAP	154.3	8.8	31,884.0	1,703.6	18.7
GRASIM	3,154.5	6.2	81,838.0	5,614.4	14.6
PAGEIND	38,380.0	0.2	29,809.0	2,751.2	10.8
JUBLFOOD	435.6	-7.8	39,518.0	3,941.2	10.0
APOLLOHOSP	8,308.5	2.8	81,604.0	8,267.0	9.9

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
ADANIEN	2800	1087062	3.8%	2698	2500	683199	-7.3%	JIOFIN	260	12654750	10.3%	236	250	4262900	6.0%
ADANIPTS	1800	1209350	0.4%	1793	1700	964250	-5.2%	JSWSTEEL	1300	1469475	1.5%	1281	1240	434025	-3.2%
APOLLOHOSP	8500	218000	2.3%	8309	8000	231375	-3.7%	KOTAKBANK	390	6796000	2.4%	381	360	3680000	-5.5%
ASIANPAINT	2600	844000	0.0%	2599	2500	405250	-3.8%	LT	4000	1331050	1.8%	3929	3900	470225	-0.7%
AXISBANK	1300	3712500	3.7%	1253	1200	1129375	-4.3%	M&M	3100	602800	0.0%	3099	3100	609200	0.0%
BAJAJ-AUTO	10600	224100	-0.6%	10667	10000	156225	-6.3%	MARUTI	13500	311900	3.8%	13010	12500	113600	-3.9%
BAJAJFINSV	1820	931750	3.9%	1752	1680	351250	-4.1%	MAXHEALTH	1100	765975	0.8%	1091	1050	468825	-3.8%
BAJFINANCE	950	2447250	4.7%	908	900	1774500	-0.8%	NESTLEIND	1500	779000	6.6%	1407	1460	370000	3.8%
BEL	440	7442775	4.7%	420	420	2556450	-0.1%	NTPC	400	14056500	2.9%	389	390	2862000	0.3%
BHARTIARTL	1940	3931100	2.9%	1885	1800	1744675	-4.5%	ONGC	305	13806000	3.1%	296	280	4520250	-5.4%
CIPLA	1440	1125750	2.7%	1402	1300	1001625	-7.3%	POWERGRID	320	5185100	6.8%	300	300	1945600	0.2%
COALINDIA	500	4491450	8.6%	460	465	3137400	1.0%	RELIANCE	1500	6696500	11.1%	1350	1360	2019000	0.8%
DRREDDY	1400	1538750	6.2%	1319	1200	857500	-9.0%	SBILIFE	1860	1302750	0.0%	1860	1860	253500	0.0%
EICHERMOT	7400	158400	7.4%	6892	6500	102500	-5.7%	SBIN	1100	11730000	15.7%	951	1000	3468000	5.2%
ETERNAL	260	10277150	7.4%	242	240	3945475	-0.8%	SHRIRAMFIN	940	2413125	2.8%	915	900	778800	-1.6%
GRASIM	3200	345000	1.4%	3155	3100	393500	-1.7%	SUNPHARMA	1900	4279800	0.5%	1891	1900	1233400	0.5%
HCLTECH	1290	3487750	10.4%	1168	1200	1143800	2.7%	TATACONSUM	1250	444950	4.6%	1195	1150	349250	-3.8%
HDFCBANK	800	11369600	5.4%	759	750	3782900	-1.2%	TMPV	360	7099200	-0.4%	361	360	3126400	-0.4%
HDFCLIFE	600	2971100	-2.3%	614	615	1392600	0.1%	TATASTEEL	210	20861500	0.7%	209	210	10472000	0.7%
HINDALCO	1100	1219400	0.1%	1099	1050	1082900	-4.5%	TCS	2500	2319275	7.4%	2327	3120	581175	34.1%
HINDUNILVR	2400	1388400	10.1%	2179	2300	684900	5.6%	TECHM	1460	1389600	2.8%	1420	1380	741600	-2.8%
ICICIBANK	1300	4227300	4.6%	1243	1260	1962100	1.4%	TITAN	4500	733950	10.2%	4083	4100	341600	0.4%
INDIGO	4400	833400	-0.1%	4403	4200	362400	-4.6%	TRENT	4500	733400	7.9%	4170	4000	189900	-4.1%
INFY	1200	4750000	1.6%	1181	1100	1566400	-6.9%	ULTRACEMCO	12200	151100	6.3%	11474	11000	37850	-4.1%
ITC	310	21579200	0.6%	308	300	4896000	-2.6%	WIPRO	200	15984000	0.1%	200	195	8103000	-2.4%

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

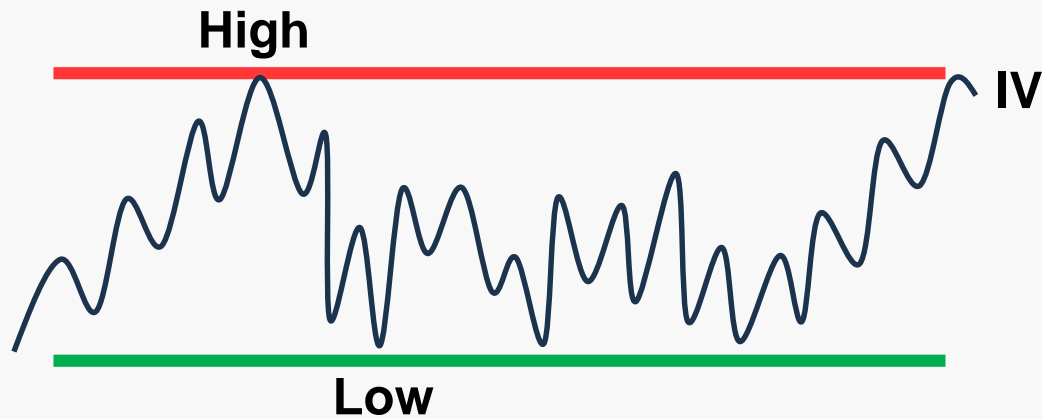


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



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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