



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	24,063	1.3%▲
Open Interest (OI)	2,08,35,490	1.5%▼
Change in OI (abs)	2,08,35,490	3,21,750▼
Premium / Discount (Abs)	31	7▲
Inference	Short Covering	

Bank Nifty Futures

	Value	Change
Most recent settlement	55,431	2.20%▲
Open interest (OI)	31,56,630	4.6%▲
Change in OI (abs)	31,56,630	1,39,500▲
Premium / Discount (Abs)	138	44▼
Inference	Long Build Up	

Volatility Insights

	Value	Change
India VIX Index	16.7	1.21▼
Nifty ATM IV (%)	14.36	0.00▲
Bank Nifty ATM IV (%)	46.97	28.96▲
PCR (Nifty)	1.26	0.18▲
PCR (Bank Nifty)	0.99	0.20▲

The FII Long Ratio in Index Futures **Jump to 16.1%**, **Up** from **14 %** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
ABB	28,93,250	7.0%	6760.5	1.5%
ADANIPOWER	10,16,82,650	6.6%	233.81	6.4%
OBEROIRLTY	78,77,800	6.3%	1720.9	3.2%
PIIND	41,17,575	6.2%	2862.8	3.2%
POLYCAB	21,93,500	5.2%	9398	1.3%

Short Buildup (Open Interest Higher + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
COLPAL	49,97,950	6.7%	2108.9	-2.3%
PAYTM	1,65,92,350	5.5%	1097.4	-1.5%
INFY	9,94,24,000	4.2%	1169.7	-0.3%
ONGC	10,03,50,000	3.5%	285.25	-1.9%
NAUKRI	1,54,94,600	3.4%	938.35	-2.7%

Short Covering (Open Interest Lower + Price Higher)

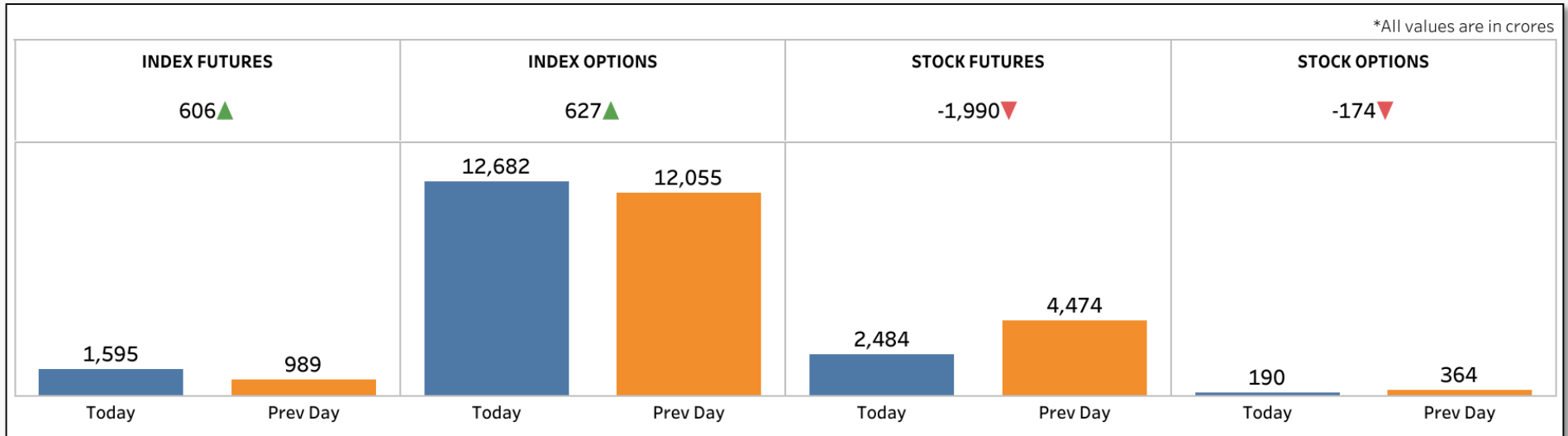
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KFINTECH	54,56,450	-14.4%	830.2	1.6%
HYUNDAI	1,20,22,725	-12.5%	1882.5	1.4%
LTF	4,47,93,000	-12.4%	279.45	3.4%
IRFC	5,85,90,475	-11.9%	100.81	2.3%
KPITTECH	92,46,200	-10.4%	759.9	1.1%

Long Unwinding (Open Interest Lower + Price Lower)

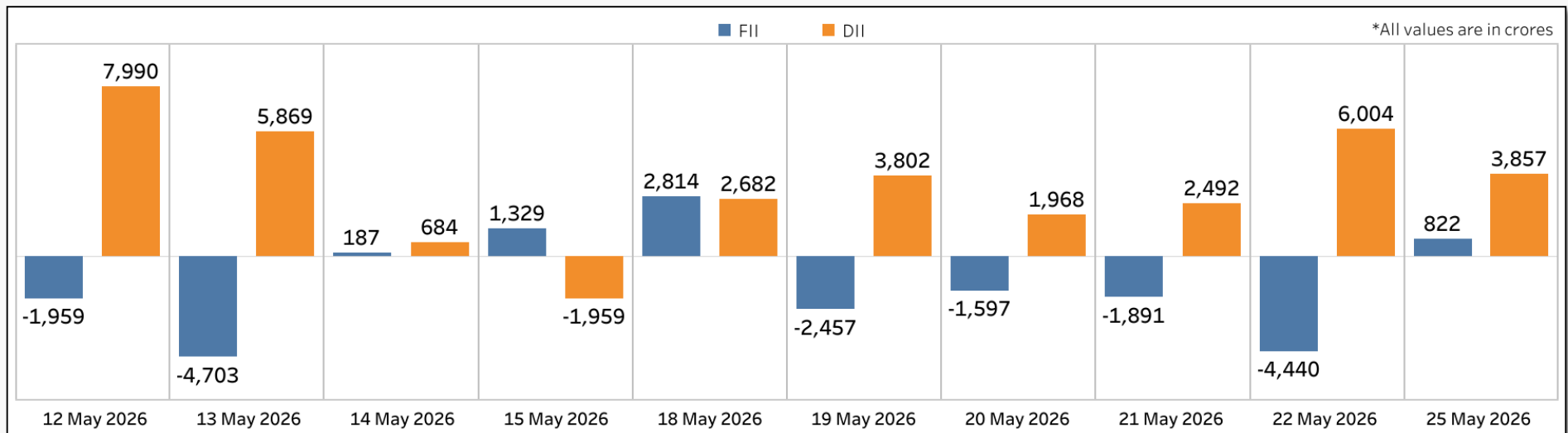
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PREMIERENE	1,48,42,550	-13.0%	984.8	-0.6%
MANKIND	39,75,250	-12.8%	2461.4	-1.2%
OIL	1,73,16,600	-6.7%	483.45	-3.5%
PAGEIND	2,98,180	-6.4%	38545	-2.5%
COCHINSHIP	33,02,400	-6.3%	1530.1	-0.4%

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

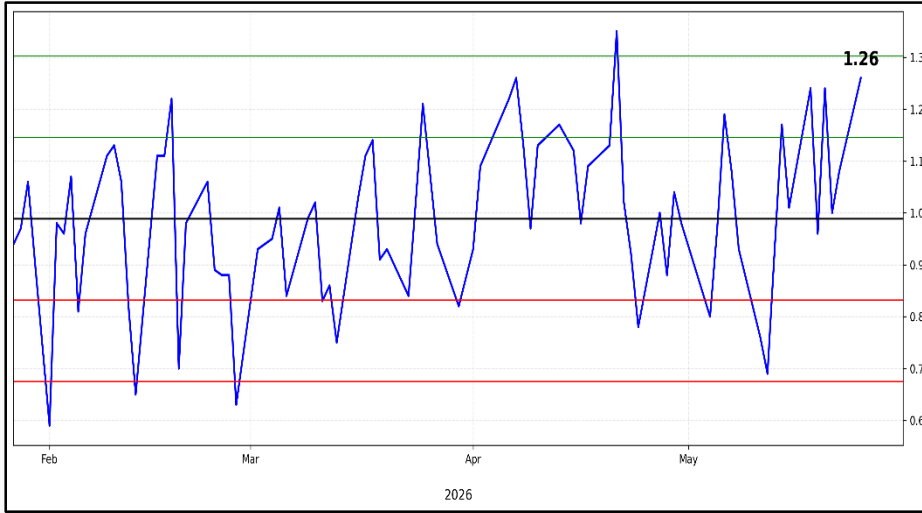
Daily Net Open Interest Change



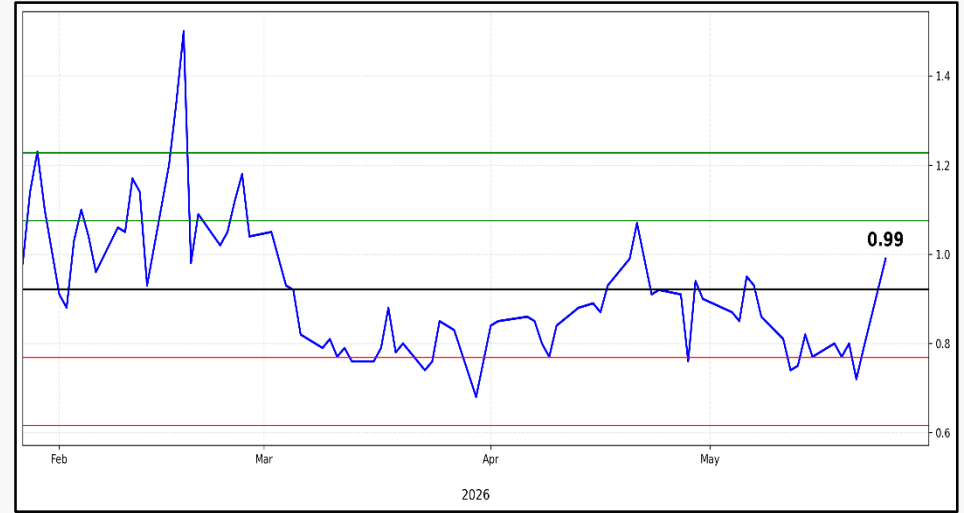
DII and FII Daily Cash Market Flows



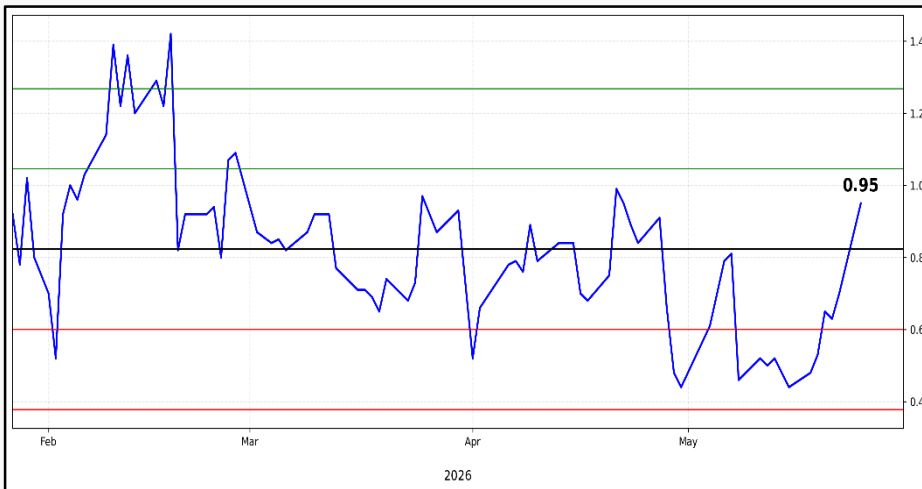
Nifty



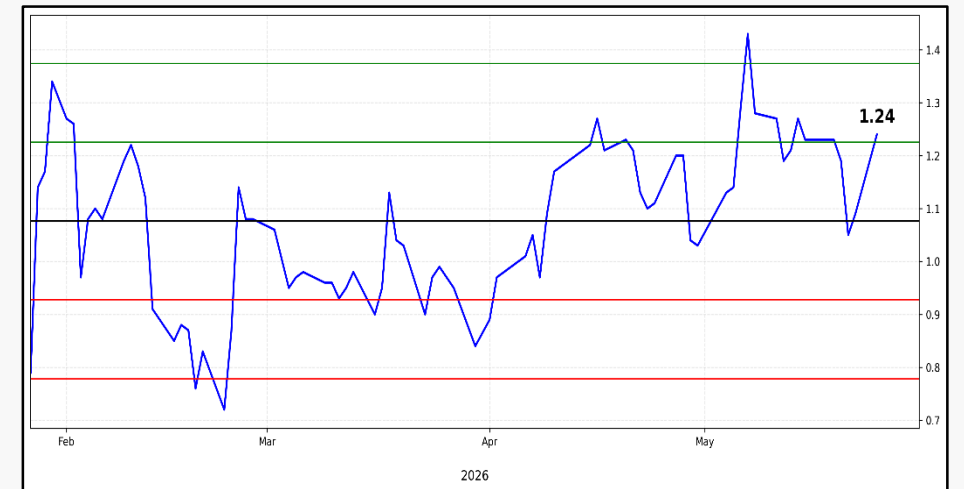
Bank Nifty



Fin Nifty



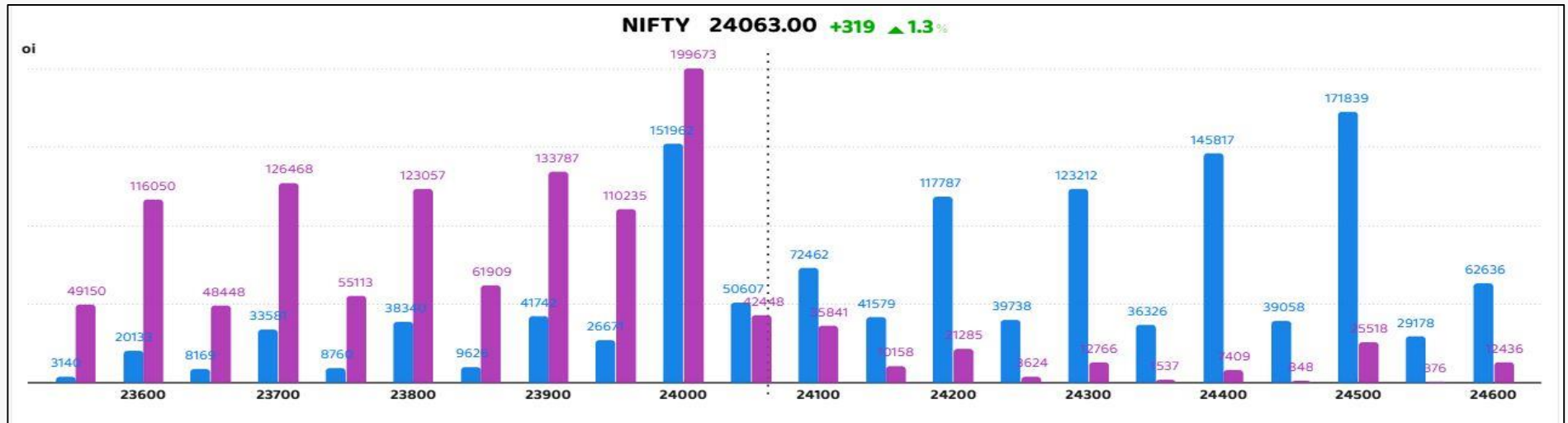
Midcap Select Nifty



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 24,500 Call and 24,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 56,000 Call and the 55,000 Put saw the most amount of open interest.

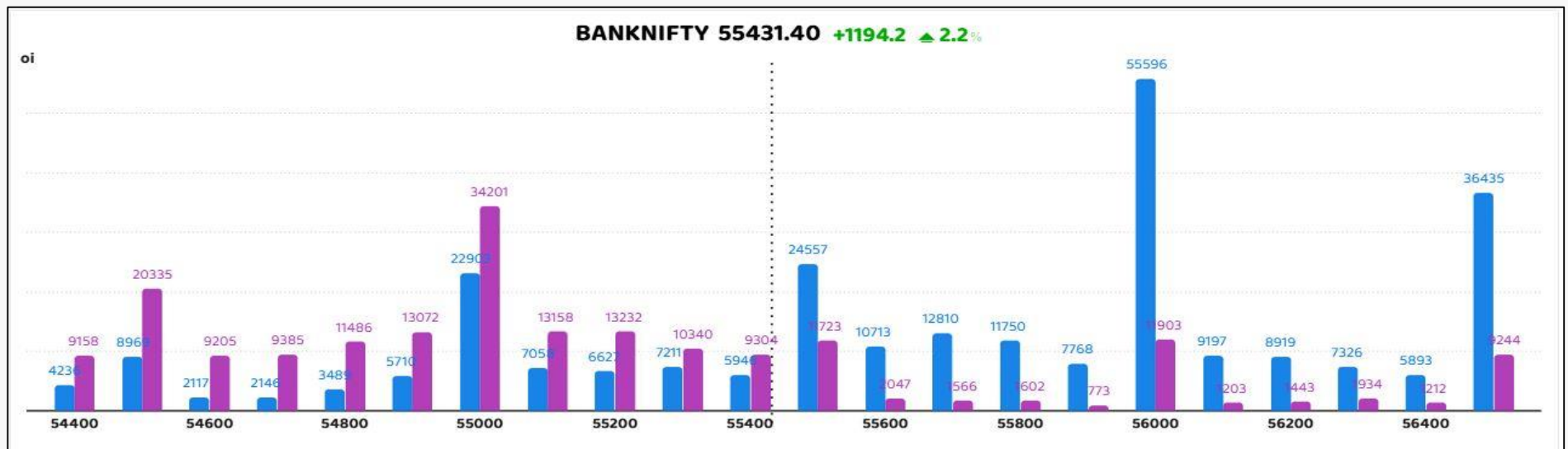
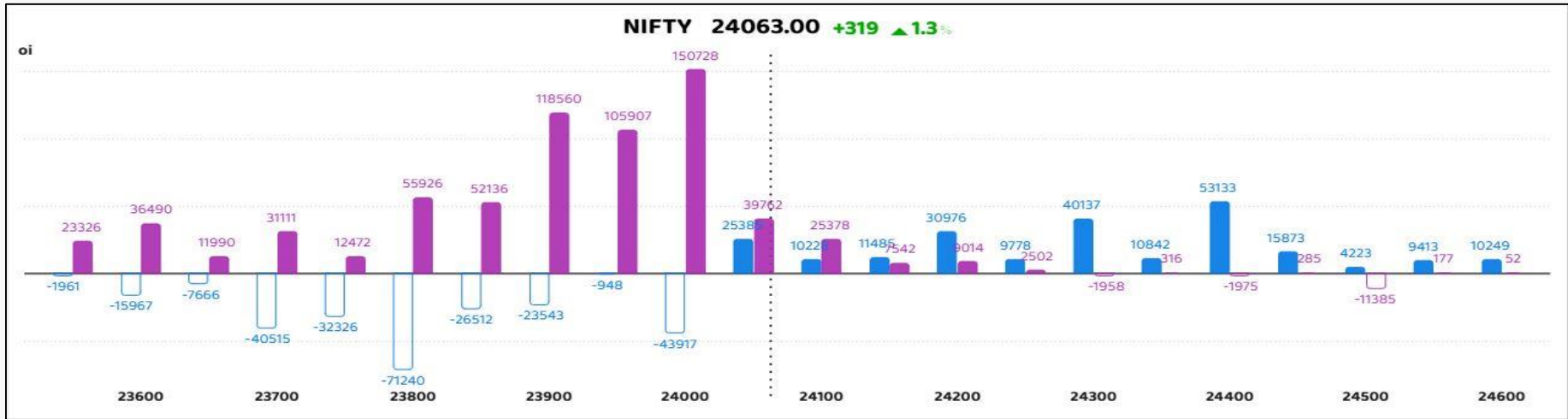


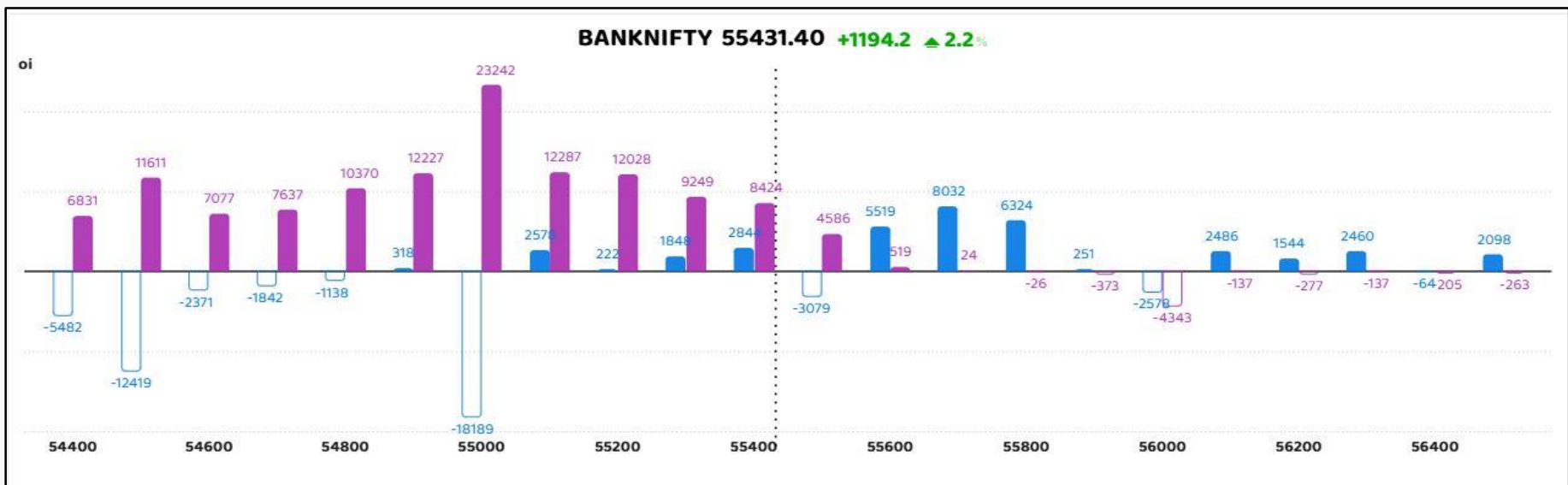
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23,800 Call and the 24,000 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,000 Call & the 55,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
GLENMARK PHARMA	2337.0	3.5	40.2	42.2	22.9	89.5
SIEMENS LTD	3667.5	-3.8	42.9	45.6	23.2	88.2
TORRENT PHARMA	4572.6	1.9	29.9	31.9	15.4	87.9
BHARAT HEAVY ELE	419.4	2.7	37.4	45.1	5.2	80.8
VEDANTA LTD	332.5	0.8	39.3	47.4	9.2	78.9

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
STEEL AUTHORITY	198.3	-1.4	1.2	91.3	0.6	0.7
INDUS TOWERS LTD	438.9	1.6	24.0	51.0	23.4	2.1
ASHOK LEYLAND	164.1	3.7	39.0	734.8	18.5	2.9
ADITYA BIRLA CAP	363.7	1.8	29.7	658.6	8.2	3.3
LAURUS LABS LTD	1356.3	1.0	26.1	48.4	24.7	6.0

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
GLENMARK PHARMA	2337.0	3.5	40.2	42.2	22.9	99.1
SIEMENS LTD	3667.5	-3.8	42.9	45.6	23.2	97.8
TORRENT PHARMA	4572.6	1.9	29.9	31.9	15.4	96.9
ASIAN PAINTS LTD	2657.8	0.7	29.6	37.1	9.5	89.6
ADANI ENERGY SOL	1404.3	2.7	49.6	70.1	20.6	89.1

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
STEEL AUTHORITY	198.3	-1.4	1.2	91.3	0.6	0.5
BSE LTD	4291.2	2.3	35.1	55.9	32.9	1.9
INDUS TOWERS LTD	438.9	1.6	24.0	51.0	23.4	2.2
LAURUS LABS LTD	1356.3	1.0	26.1	48.4	24.7	5.3
VODAFONE IDEA LT	14.0	2.3	43.7	212.9	7.2	7.6

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
HDFCAMC	2,758.1	0.7	19,316.0	3,129.0	6.2
WAAREENER	2,984.2	-0.4	41,516.0	10,539.0	3.9
KPITTECH	756.6	0.7	30,028.0	8,540.0	3.5
IRFC	100.4	2.3	16,433.0	4,683.0	3.5
ZYDUSLIFE	1,073.0	3.3	25,545.0	7,431.0	3.4

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
KEI	5,281.5	0.4	9,347.0	14,393.0	1.5
INDIGO	4,501.9	1.4	137,249.0	190,864.0	1.4
SIEMENS	3,667.6	-3.8	33,903.0	37,865.0	1.1
OIL	482.6	-3.4	8,076.0	7,905.0	1.0
LAURUSLABS	1,356.3	1.0	7,921.0	7,225.0	0.9

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
NAUKRI	938.4	-2.3	15,227.0	14,299.0	100.0
POWERINDIA	35,635.0	0.2	15,126.0	12,195.0	100.0
TORNTPHARM	4,572.5	1.9	7,354.0	6,728.0	100.0
NYKAA	270.0	-2.6	11,112.0	9,589.0	100.0
BAJAJ-AUTO	10,491.0	-0.6	29,897.0	27,614.0	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
NAUKRI	938.4	-2.3	9,317.0	8,294.0	100.0
INDUSTOWER	438.8	1.6	16,527.0	15,558.0	100.0
ADANIENT	2,849.7	4.9	28,544.0	28,142.0	100.0
WIPRO	206.8	1.8	35,158.0	32,205.0	100.0
AMBER	7,461.5	1.4	19,596.0	19,322.0	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
BPCL	308.2	4.3	43,266.0	41,017.0	100.0
TORNTPHARM	4,572.5	1.9	132,688.0	101,629.0	100.0
GAIL	168.7	4.9	64,303.0	26,420.0	100.0
INDIGO	4,501.9	1.4	137,249.0	146,281.0	93.8
ADANIENT	2,849.7	4.9	162,184.0	186,427.0	87.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
TORNTPHARM	4,572.5	1.9	56,036.0	29,180.0	100.0
NBCC	96.8	2.1	6,865.0	4,993.0	100.0
CONCOR	512.0	1.2	5,720.0	6,341.0	90.2
INDIGO	4,501.9	1.4	190,864.0	214,179.0	89.1
NAUKRI	938.4	-2.3	54,198.0	64,111.0	84.5

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
PAGEIND	38,545.0	-2.3	10,268.0	2,784.9	3.7
NYKAA	270.0	-2.6	11,112.0	3,303.0	3.4
BOSCHLTD	36,310.0	0.7	13,343.0	5,133.0	2.6
MAXHEALTH	1,000.8	-2.2	15,110.0	6,470.4	2.3
AMBER	7,461.5	1.4	33,837.0	15,107.6	2.2

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
NAUKRI	938.4	-2.3	9,317.0	3,568.0	2.6
NYKAA	270.0	-2.6	3,729.0	1,473.1	2.5
TORNTPHARM	4,572.5	1.9	5,617.0	2,289.6	2.5
AMBER	7,461.5	1.4	19,596.0	8,605.4	2.3
SAMMAANCAP	168.6	4.4	8,223.0	3,662.4	2.2

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
TORNTPHARM	4,572.5	1.9	132,688.0	8,999.7	14.7
GAIL	168.7	4.9	64,303.0	7,226.9	8.9
EICHERMOT	7,414.0	6.2	193,660.0	22,299.2	8.7
NAUKRI	938.4	-2.3	92,015.0	14,422.0	6.4
COLPAL	2,097.0	-2.8	56,116.0	9,447.0	5.9

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
TORNTPHARM	4,572.5	1.9	56,036.0	2,609.8	21.5
COLPAL	2,097.0	-2.8	45,887.0	4,312.1	10.6
NAUKRI	938.4	-2.3	54,198.0	5,833.2	9.3
DIVISLAB	6,756.5	-1.9	47,838.0	6,459.6	7.4
EICHERMOT	7,414.0	6.2	79,896.0	11,706.9	6.8

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	2800	484203	-1.7%	2850	2500	548784	-12.3%	JIOFIN	250	7621050	3.4%	242	250	3367550	3.4%
ADANIPTS	1800	636025	-0.2%	1803	1780	430825	-1.3%	JSWSTEEL	1300	726975	0.8%	1289	1240	422550	-3.8%
APOLLOHOSP	8650	77750	2.9%	8404	8000	110750	-4.8%	KOTAKBANK	400	4052000	1.8%	393	360	3092000	-8.4%
ASIANPAINT	2660	910750	0.1%	2658	2600	393500	-2.2%	LT	4200	669200	4.1%	4033	4000	236250	-0.8%
AXISBANK	1300	2424375	-0.9%	1311	1280	1227500	-2.4%	M&M	3100	498600	-1.2%	3139	3100	578200	-1.2%
BAJAJ-AUTO	11000	191325	4.9%	10491	10000	96675	-4.7%	MARUTI	13500	274550	2.5%	13170	12500	96600	-5.1%
BAJAJFINSV	1820	756500	0.7%	1807	1760	312500	-2.6%	MAXHEALTH	1120	719250	11.9%	1001	1100	168525	9.9%
BAJFINANCE	1000	1868250	6.2%	942	900	963000	-4.4%	NESTLEIND	1500	750000	6.1%	1414	1460	365500	3.3%
BEL	440	5262525	4.3%	422	440	2140350	4.3%	NTPC	400	12715500	2.6%	390	390	2914500	0.0%
BHARTIARTL	1920	3518800	2.4%	1875	1800	1298175	-4.0%	ONGC	305	13700250	7.0%	285	280	3390750	-1.7%
CIPLA	1420	852750	0.4%	1414	1300	693750	-8.1%	POWERGRID	320	4294000	8.3%	295	320	830300	8.3%
COALINDIA	470	3144150	2.6%	458	460	1246050	0.4%	RELIANCE	1500	5356000	9.7%	1367	1340	1350500	-2.0%
DRREDDY	1400	1083125	5.2%	1331	1200	627500	-9.9%	SBILIFE	1860	1279875	-2.2%	1902	1860	490500	-2.2%
EICHERMOT	7500	147700	1.2%	7414	7000	105900	-5.6%	SBIN	1100	7370250	13.4%	970	960	2304750	-1.0%
ETERNAL	260	7760000	5.0%	248	240	2575350	-3.1%	SHRIRAMFIN	940	901725	-2.3%	962	950	514800	-1.2%
GRASIM	3180	196750	0.3%	3172	3100	194500	-2.3%	SUNPHARMA	1900	4179000	3.2%	1841	1800	989100	-2.2%
HCLTECH	1290	6749750	10.7%	1166	1200	963550	2.9%	TATACONSUM	1250	385550	5.3%	1187	1100	306900	-7.3%
HDFCBANK	800	9138250	1.7%	787	750	3128400	-4.7%	TMPV	370	6077600	-0.9%	373	360	3644000	-3.5%
HDFCLIFE	600	2802800	-3.2%	620	600	1604900	-3.2%	TATASTEEL	210	17096750	-0.1%	210	210	10494000	-0.1%
HINDALCO	1100	1048600	0.0%	1100	1050	695800	-4.5%	TCS	2500	1570625	8.3%	2308	2200	463400	-4.7%
HINDUNILVR	2400	1234800	9.3%	2197	2300	551100	4.7%	TECHM	1460	1279800	1.7%	1436	1380	650400	-3.9%
ICICIBANK	1300	3341100	0.6%	1292	1260	2018100	-2.5%	TITAN	4500	563150	8.2%	4159	4300	213500	3.4%
INDIGO	4400	775800	-2.3%	4502	4200	321000	-6.7%	TRENT	4500	537600	4.7%	4300	4200	125800	-2.3%
INFY	1200	3915600	2.7%	1169	1100	1127600	-5.9%	ULTRACEMCO	12200	142300	4.0%	11726	11600	31650	-1.1%
ITC	310	20152000	2.0%	304	290	4089600	-4.6%	WIPRO	200	10764000	-3.3%	207	200	6504000	-3.3%

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.

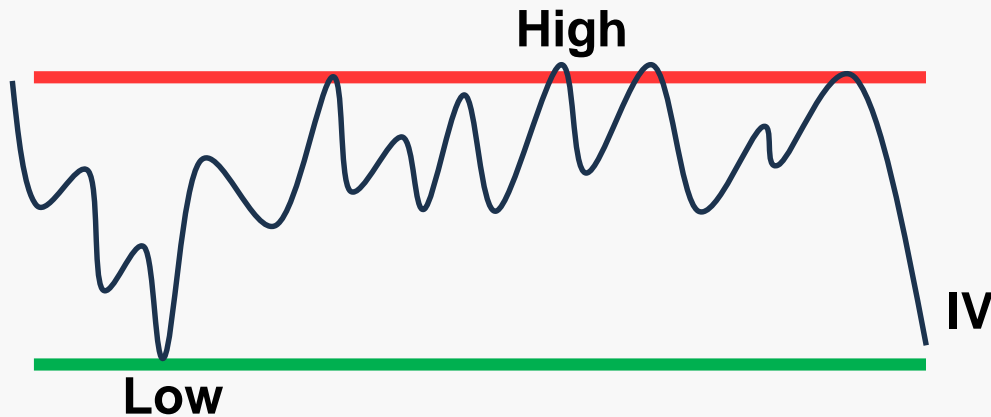


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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