



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	24,106	0.4%▼
Open Interest (OI)	1,78,56,085	3.0%▲
Change in OI (abs)	1,78,56,085	5,14,930▲
Premium / Discount (Abs)	87	13▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	54,808	0.63%▼
Open interest (OI)	24,59,310	5.1%▲
Change in OI (abs)	24,59,310	1,19,490▲
Premium / Discount (Abs)	332	14▼
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	17.91	0.39▼
Nifty ATM IV (%)	16.89	0.53▼
Bank Nifty ATM IV (%)	20.12	0.37▼
PCR (Nifty)	1.08	0.28▲
PCR (Bank Nifty)	0.85	0.02▼

The FII Long Ratio in Index Futures **drop** to **11.5%**, **down** from **11.7%** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
360ONE	46,55,000	11.7%	1076.7	0.4%
MOTILALOFS	31,15,500	9.2%	848.05	0.9%
LTM	35,01,750	7.2%	4246	1.3%
GODFRYPHLP	17,11,600	6.9%	2246.1	1.3%
MANKIND	37,52,325	6.8%	2329.9	2.7%

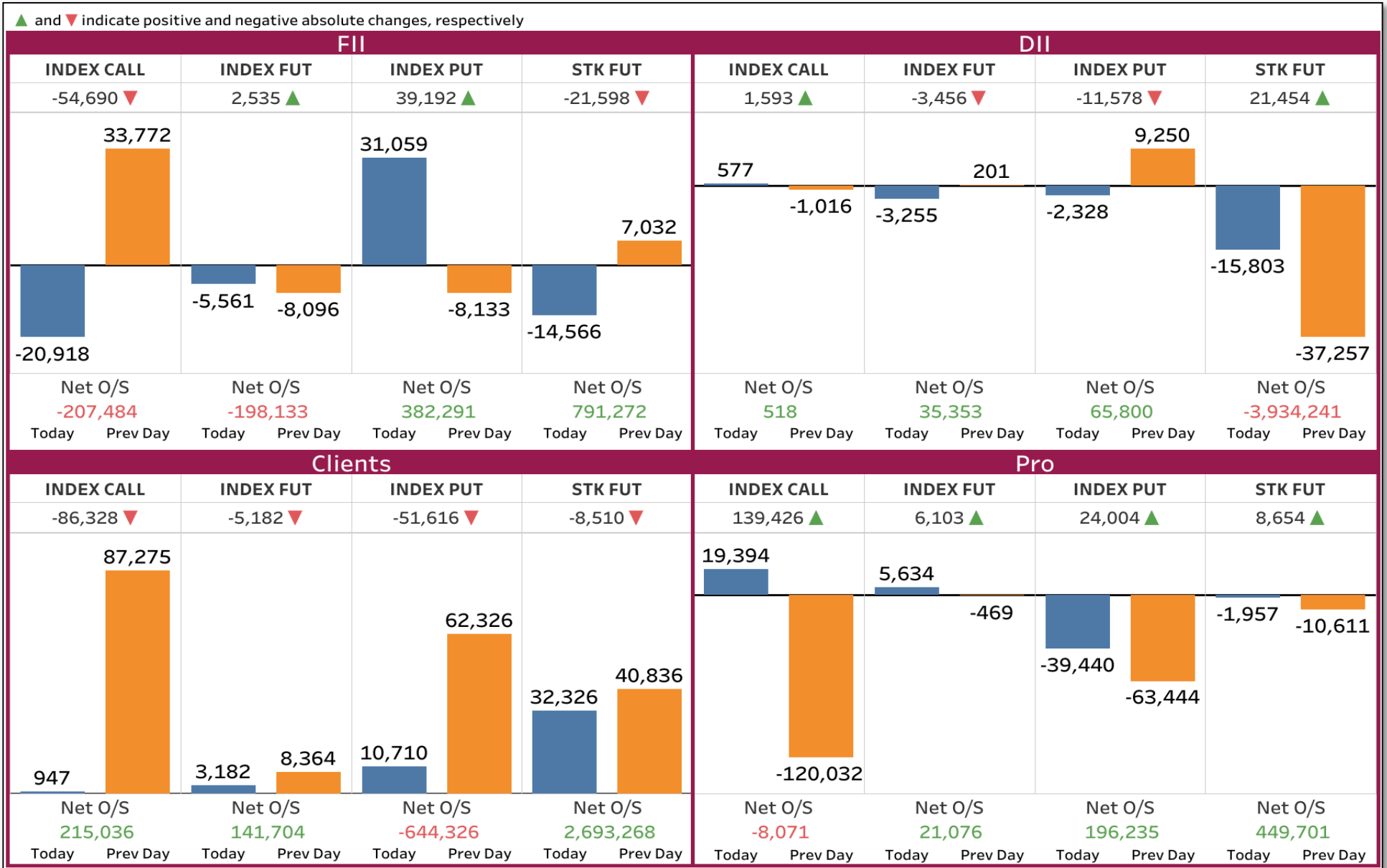
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
HYUNDAI	94,69,350	14.6%	1796.7	-1.0%
GODREJPROP	80,92,325	10.0%	1819.8	-4.8%
SRF	37,91,600	7.8%	2542.5	-0.9%
LAURUSLABS	1,92,90,750	5.9%	1169.4	-0.2%
APLAPOLLO	61,18,000	5.7%	1881.6	-0.1%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ABCAPITAL	3,99,74,500	-11.3%	361.65	4.4%
CAMS	71,81,475	-4.3%	801	10.5%
CHOLAFIN	1,86,61,250	-4.2%	1661.8	1.1%
MANAPPURAM	5,07,84,000	-3.9%	308.85	0.7%
RELIANCE	9,58,07,500	-3.1%	1467.4	0.0%

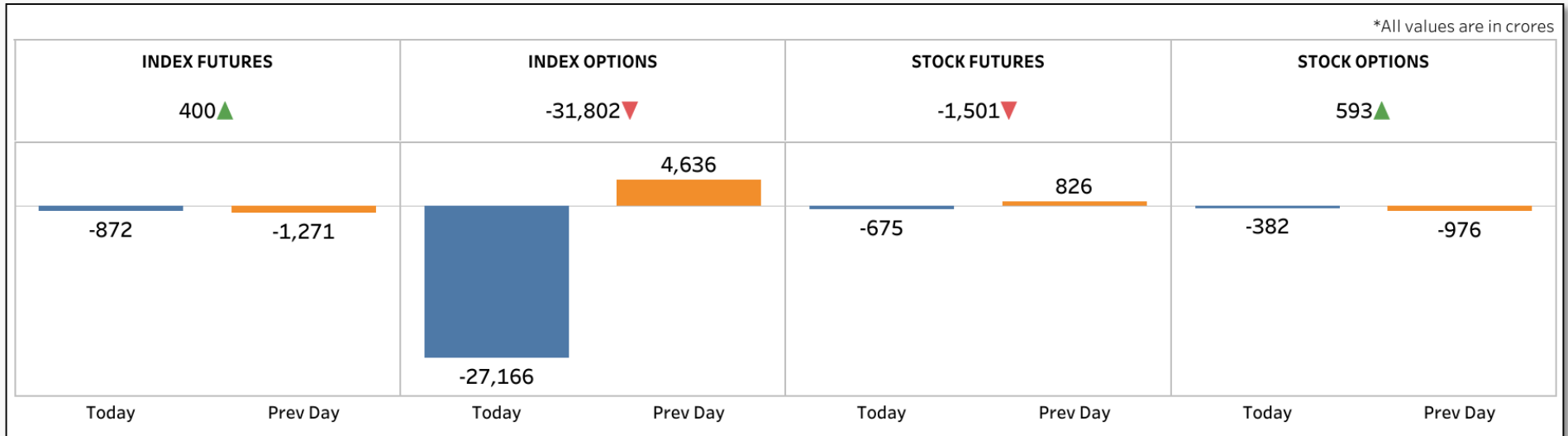
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KOTAKBANK	22,10,38,000	-3.1%	372.25	-0.1%
BHEL	13,47,51,750	-2.4%	376.4	-0.9%
MPHASIS	46,69,775	-2.3%	2221.6	-2.7%
GAIL	7,41,29,850	-1.8%	164.58	-0.5%
FORCEMOT	2,91,700	-1.6%	18966	-0.8%

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

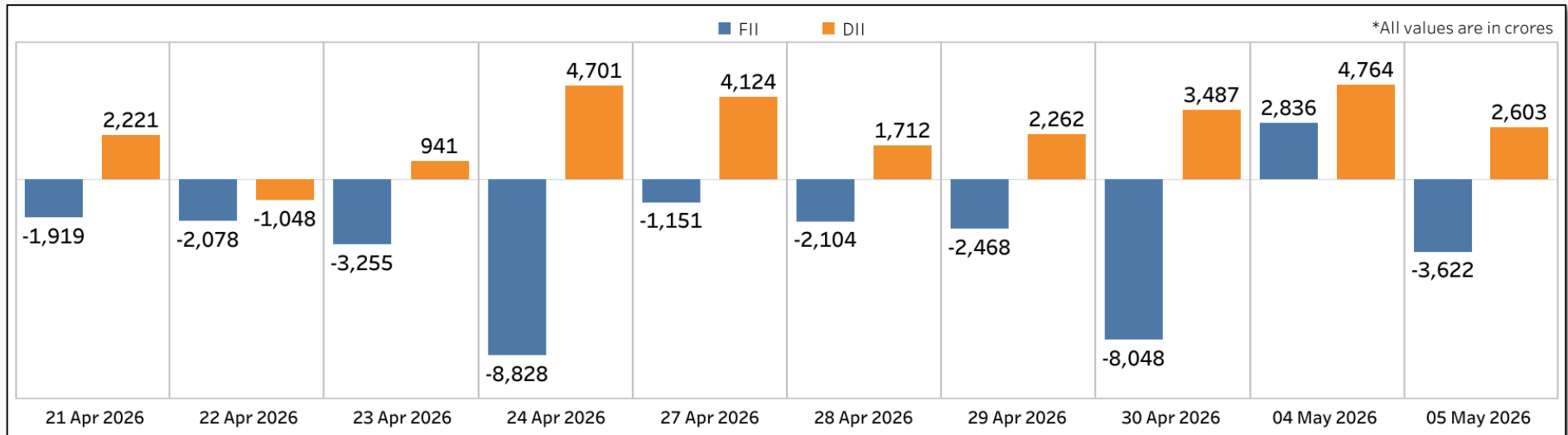
Open Interest Trends by Participant



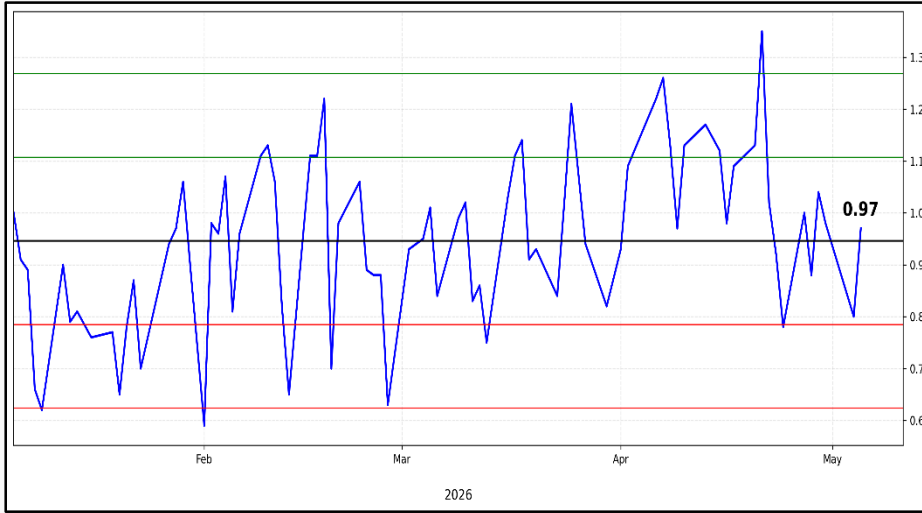
Daily Net Open Interest Change



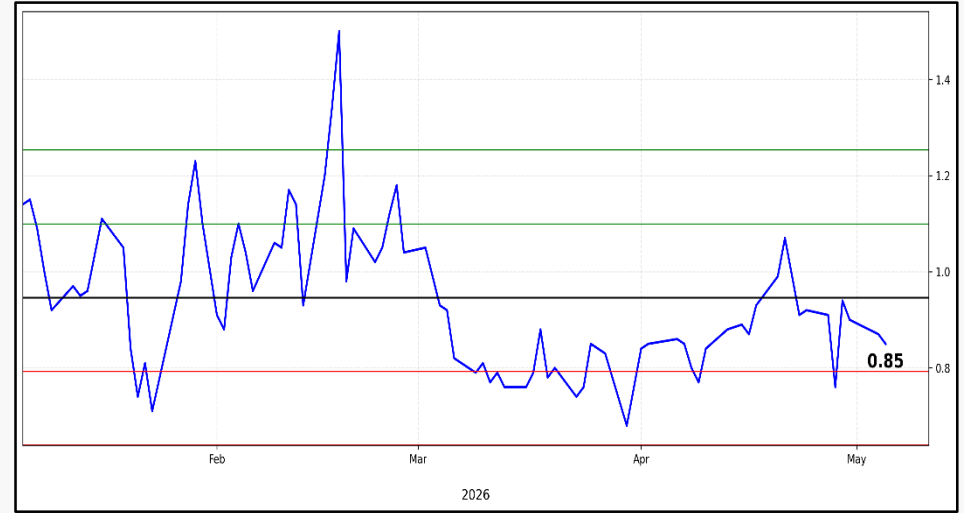
DII and FII Daily Cash Market Flows



Nifty



Bank Nifty



Fin Nifty



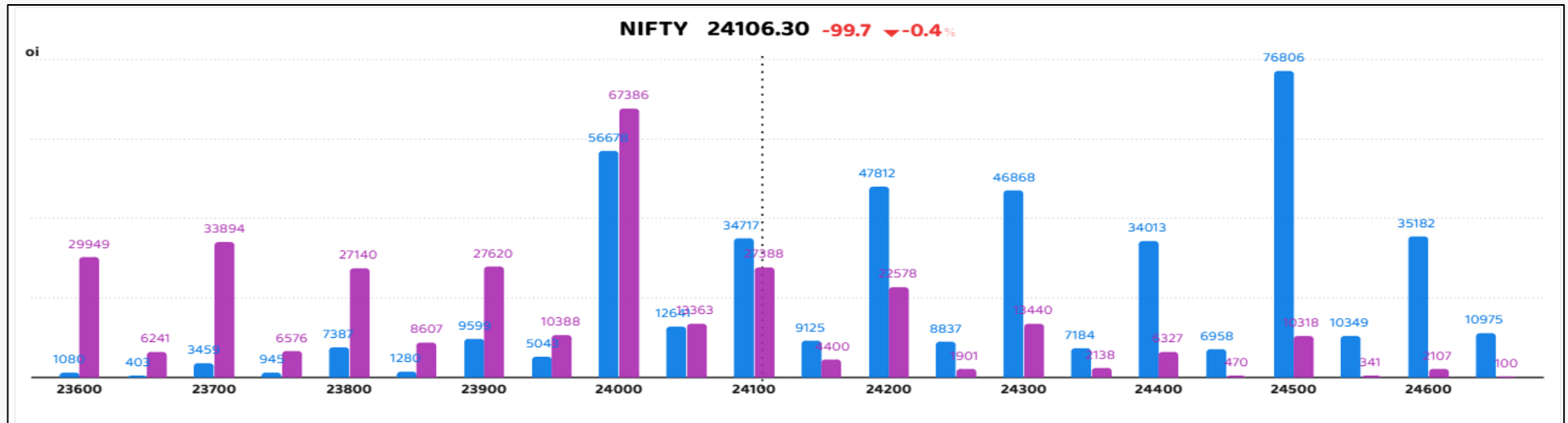
Midcap Select Nifty



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.

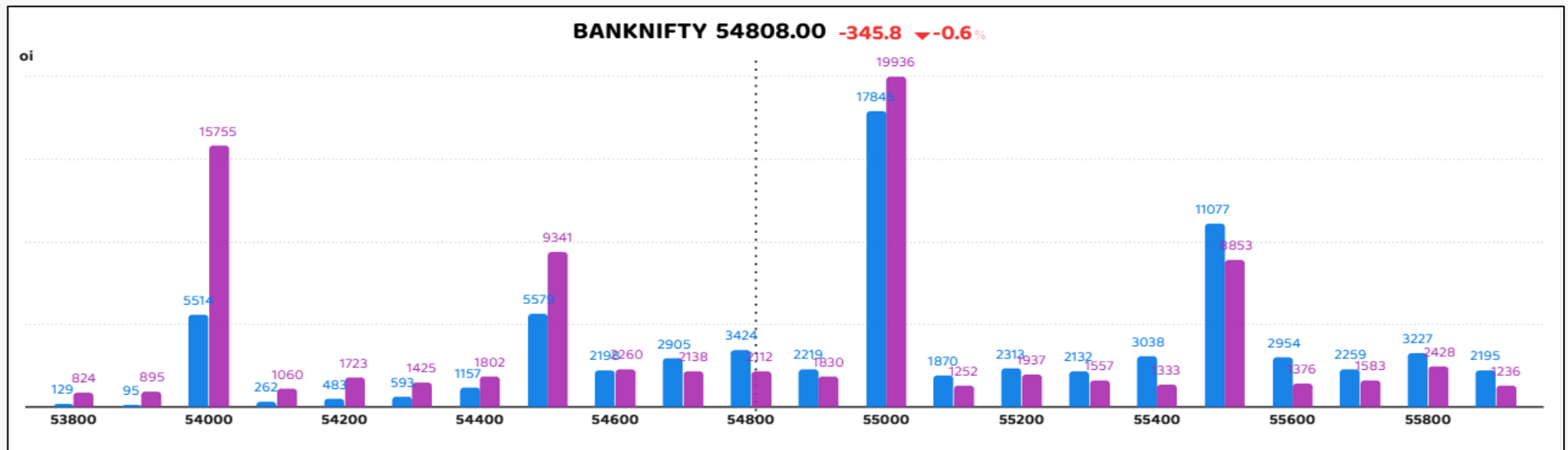
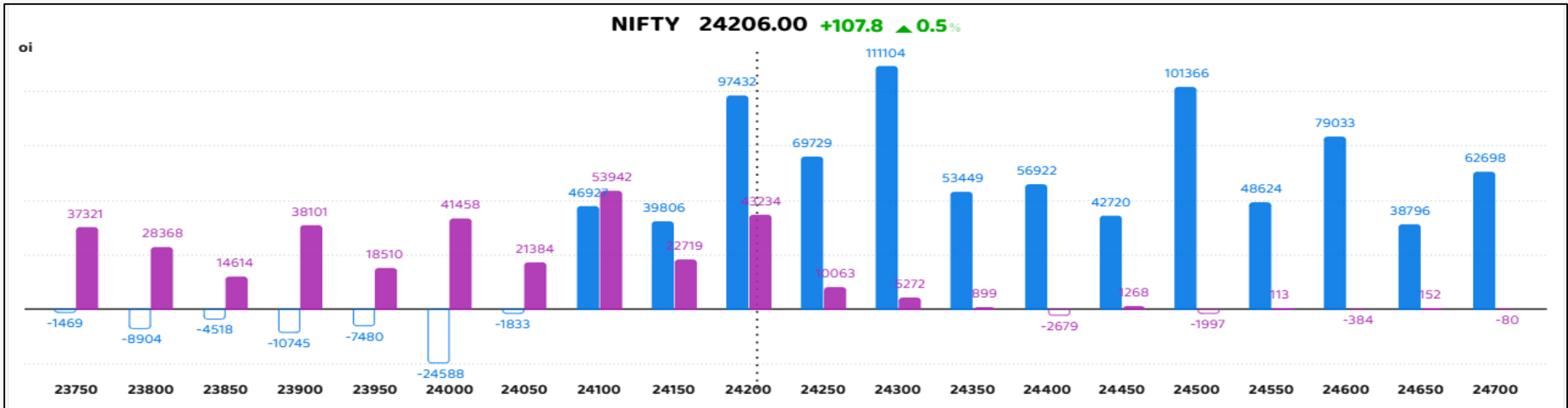


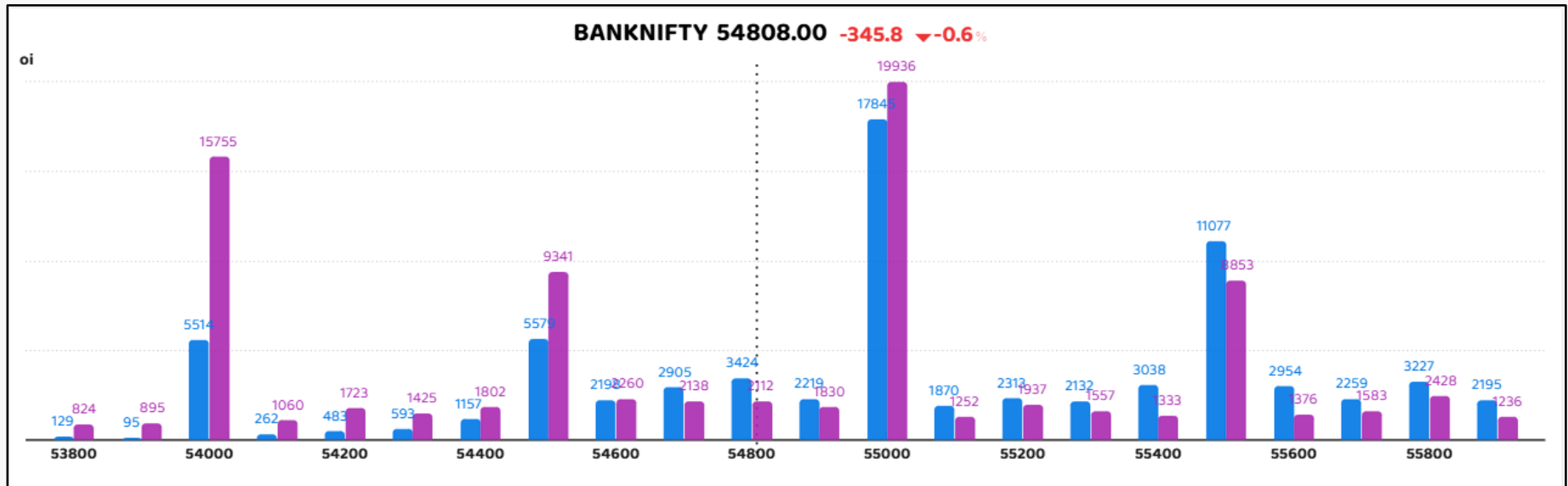
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,300 Call and the 24,100 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,500 Call & the 55,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
VEDANTA LTD	303.9	3.1	43.9	46.2	9.2	93.7
COLGATE PALMOLIV	2178.9	0.3	29.7	33.8	9.7	82.7
POLYCAB INDIA LT	8337.0	-0.1	36.5	44.0	2.8	81.7
BHARAT FORGE CO	1866.6	1.1	39.7	43.7	22.2	81.3
STATE BANK IND	1059.9	-0.8	31.4	40.6	2.1	76.2

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ASHOK LEYLAND	160.3	-0.3	37.1	734.8	18.5	2.6
ADITYA BIRLA CAP	360.9	4.3	33.6	658.6	8.2	3.9
CHOLAMANDALAM IN	1657.4	1.1	31.8	186.8	19.6	7.3
HINDALCO INDS	1054.7	1.2	31.1	254.2	12.3	7.8
REC LTD	356.4	0.8	31.3	244.9	8.0	9.9

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
TORRENT POWER LT	1734.7	0.6	46.0	47.5	21.8	99.6
VEDANTA LTD	303.9	3.1	43.9	46.2	9.2	99.2
PIRAMAL PHARMA L	159.9	0.2	50.5	58.0	24.9	99.0
MANKIND PHARMA L	2319.5	2.7	36.7	40.7	20.2	96.5
ALKEM LABORATORI	5403.0	0.8	31.8	38.4	13.7	96.2

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
WIPRO LTD	199.8	-0.5	17.2	67.3	5.0	0.8
VODAFONE IDEA LT	10.8	2.7	45.7	212.9	10.0	8.1
BSE LTD	3726.2	0.4	39.6	55.9	32.9	22.2
INDIAN RENEWABLE	135.3	-0.1	32.9	74.5	6.7	29.6
INDUS TOWERS LTD	402.7	0.6	28.6	51.0	23.4	33.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
MANKIND	2,319.5	2.7	16,093.0	3,239.0	5.0
IRFC	105.8	1.4	16,623.0	3,680.0	4.5
DABUR	460.6	3.3	16,506.0	4,091.0	4.0
RVNL	300.4	1.3	11,429.0	2,847.0	4.0
INOXWIND	104.5	1.0	14,084.0	3,514.0	4.0

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
POWERINDIA	34,255.0	1.6	7,400.0	17,908.0	2.4
DELHIVERY	459.5	-1.7	6,403.0	8,443.0	1.3
JSWSTEEL	1,252.4	-1.1	4,746.0	4,135.0	0.9
BPCL	298.6	-1.0	10,109.0	8,495.0	0.8
BANDHANBNK	206.4	-0.2	11,217.0	9,065.0	0.8

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
AMBUJACEM	433.1	-2.8	20,421.0	19,690.0	100.0
MARICO	807.2	2.9	5,690.0	4,995.0	100.0
TATASTEEL	211.3	-0.4	30,293.0	30,237.0	100.0
CAMS	797.4	9.1	5,807.0	4,974.0	100.0
INDUSTOWER	402.7	0.6	17,896.0	17,945.0	99.7

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
KFINTECH	896.4	3.8	5,093.0	4,938.0	100.0
CAMS	797.4	9.1	6,016.0	4,023.0	100.0
BANDHANBNK	206.4	-0.2	9,500.0	9,516.0	99.8
M&M	3,210.8	3.4	23,081.0	23,219.0	99.4
MARICO	807.2	2.9	4,208.0	4,317.0	97.5

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
MARICO	807.2	2.9	58,650.0	29,306.0	100.0
KEI	5,018.3	-0.8	40,909.0	38,501.0	100.0
CAMS	797.4	9.1	96,831.0	11,802.0	100.0
ABCAPITAL	360.8	4.3	27,196.0	28,719.0	94.7
JINDALSTEL	1,260.6	-0.1	19,925.0	21,104.0	94.4

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
KEI	5,018.3	-0.8	26,925.0	17,714.0	100.0
MARICO	807.2	2.9	23,308.0	14,451.0	100.0
CAMS	797.4	9.1	35,304.0	11,612.0	100.0
DELHIVERY	459.5	-1.7	8,443.0	9,038.0	93.4
ABCAPITAL	360.8	4.3	12,216.0	13,498.0	90.5

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
KFINTECH	896.4	3.8	8,691.0	3,848.1	2.3
WAAREEENER	3,181.8	1.4	25,485.0	12,089.2	2.1
AMBUJACEM	433.1	-2.8	20,421.0	10,481.8	1.9
MARICO	807.2	2.9	5,690.0	3,050.2	1.9
MANKIND	2,319.5	2.7	4,888.0	2,676.0	1.8

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
KFINTECH	896.4	3.8	5,093.0	2,236.0	2.3
CAMS	797.4	9.1	6,016.0	2,681.7	2.2
WAAREEENER	3,181.8	1.4	13,457.0	7,707.6	1.7
BANDHANBNK	206.4	-0.2	9,500.0	5,692.2	1.7
MANKIND	2,319.5	2.7	3,053.0	1,837.6	1.7

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
CAMS	797.4	9.1	96,831.0	4,484.6	21.6
MARICO	807.2	2.9	58,650.0	5,545.0	10.6
KEI	5,018.3	-0.8	40,909.0	6,559.8	6.2
PETRONET	282.6	2.1	30,777.0	5,037.7	6.1
PNB	107.9	-0.7	48,407.0	10,315.4	4.7

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
CAMS	797.4	9.1	35,304.0	2,583.8	13.7
MARICO	807.2	2.9	23,308.0	2,309.2	10.1
KEI	5,018.3	-0.8	26,925.0	3,542.8	7.6
PNB	107.9	-0.7	30,141.0	6,497.8	4.6
PETRONET	282.6	2.1	11,264.0	2,738.3	4.1

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	2500	1687140	1.5%	2462	2400	735420	-2.5%	JIOFIN	250	11075550	0.6%	248	250	5722250	0.6%
ADANIPTS	1800	1142375	4.3%	1725	1600	1090125	-7.2%	JSWSTEEL	1300	769500	3.8%	1252	1240	428625	-1.0%
APOLLOHOSP	7800	106750	0.4%	7772	7000	103500	-9.9%	KOTAKBANK	400	8248000	7.7%	371	360	4930000	-3.1%
ASIANPAINT	2500	748500	2.9%	2430	2400	499250	-1.2%	LT	4200	814100	3.6%	4055	3800	641025	-6.3%
AXISBANK	1300	2563125	3.2%	1260	1200	1399375	-4.7%	M&M	3200	792200	-0.3%	3211	3100	966600	-3.5%
BAJAJ-AUTO	11000	179250	9.5%	10046	9000	172725	-10.4%	MARUTI	14000	308850	4.3%	13426	12500	114200	-6.9%
BAJAJFINSV	1800	476000	0.3%	1795	1800	326500	0.3%	MAXHEALTH	1100	550725	10.0%	1000	1000	348075	0.0%
BAJFINANCE	1000	2430000	4.3%	959	900	1893750	-6.1%	NESTLEIND	1480	582000	0.1%	1478	1400	701500	-5.3%
BEL	450	4827900	3.8%	433	430	2773050	-0.8%	NTPC	400	6894000	0.3%	399	400	2818500	0.3%
BHARTIARTL	1900	2609650	5.2%	1806	1800	787550	-0.3%	ONGC	300	7715250	3.5%	290	280	3514500	-3.4%
CIPLA	1360	530625	2.0%	1334	1200	667875	-10.0%	POWERGRID	320	5255400	0.2%	319	320	2074800	0.2%
COALINDIA	500	4070250	5.8%	473	470	2434050	-0.6%	RELIANCE	1500	5115500	2.5%	1464	1400	2727500	-4.3%
DRREDDY	1400	2055000	10.1%	1271	1300	425625	2.3%	SBILIFE	1860	1319625	2.1%	1821	1700	268500	-6.7%
EICHERMOT	7400	116300	1.3%	7302	6800	97400	-6.9%	SBIN	1100	5753250	3.8%	1060	1100	3406500	3.8%
ETERNAL	260	16482725	4.6%	248	250	5790900	0.6%	SHRIRAMFIN	1100	3490575	14.1%	964	900	1111275	-6.7%
GRASIM	2800	182250	-2.5%	2872	2800	173250	-2.5%	SUNPHARMA	1860	1503600	2.2%	1821	1700	739900	-6.6%
HCLTECH	1300	4813900	8.3%	1200	1200	2160550	0.0%	TATACONSUM	1200	415250	4.0%	1154	1100	249150	-4.6%
HDFCBANK	800	13014650	3.6%	772	800	3839000	3.6%	TMPV	360	3791200	5.8%	340	300	1672800	-11.8%
HDFCLIFE	600	2832500	1.0%	594	560	1186900	-5.7%	TATASTEEL	210	17047250	-0.6%	211	210	11728750	-0.6%
HINDALCO	1100	685300	4.3%	1055	1050	601300	-0.4%	TCS	2600	1748600	7.1%	2427	3120	672175	28.5%
HINDUNILVR	2400	1472400	3.1%	2327	2300	527100	-1.2%	TECHM	1500	973200	3.3%	1452	1300	498600	-10.5%
ICICIBANK	1300	5336100	3.9%	1251	1300	2751000	3.9%	TITAN	4500	376075	2.9%	4374	4000	222950	-8.5%
INDIGO	4600	615900	8.5%	4238	4200	285000	-0.9%	TRENT	4500	744200	8.8%	4135	4100	148600	-0.9%
INFY	1300	5172800	10.3%	1178	1160	1615600	-1.5%	ULTRACEMCO	13000	216700	8.7%	11963	12000	58100	0.3%
ITC	320	17075200	2.7%	311	290	4611200	-6.9%	WIPRO	210	19098000	5.1%	200	200	9621000	0.1%

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, 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

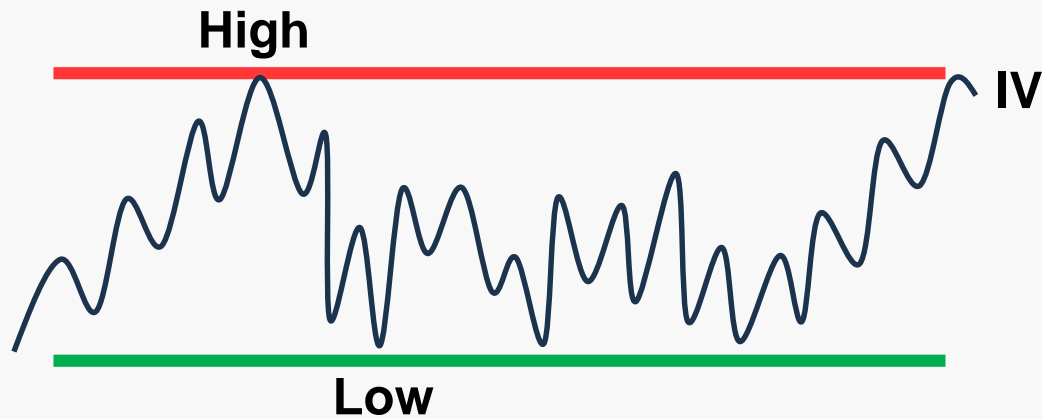


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

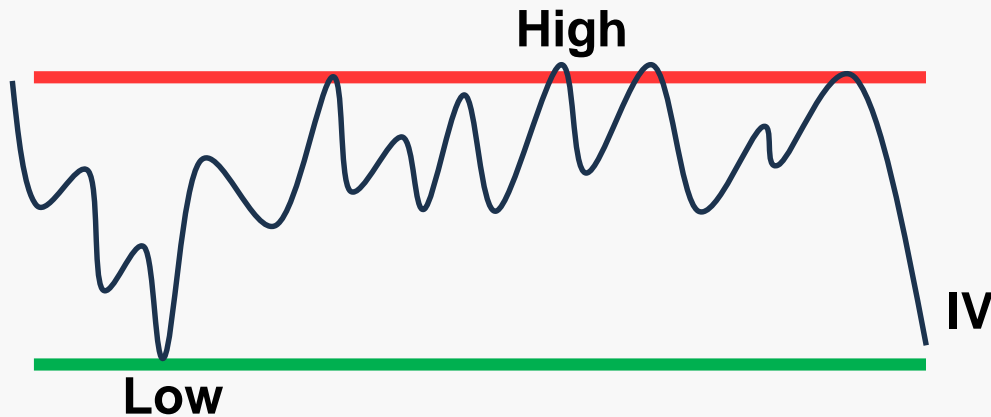


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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Compliance Officer Details: Name – Mr Rajiv Kejriwal, Tel No. – 022-68555574, Email id – compliance.officer@axisdirect.in ;

Registered Office Address – Axis Securities Limited, Unit No.002, Building- A, Agastya Corporate Park, Piramal Realty, Kamani Junction, Kurla (W), Mumbai – 400070.

Administrative office address: Axis Securities Limited, Aurum Q Parc, Q2 Building, Unit No. 1001, 10th Floor, Level – 6, Plot No. 4/1 TTC, Thane – Belapur Road, Ghansoli, Navi Mumbai, Pin Code – 400710.

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Sr. No	Name	Designation	E-mail
1	Rajesh Palviya	SVP Research (Head Technical & Derivatives)	rajesh.palviya@axissecurities.in
2	Hemang Gor	Derivative Analyst	hemang.gor@axissecurities.in
3	Rahil Vora	Derivative Analyst	rahil.vora@axissecurities.in