



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,923	1.0% ▼
Open Interest (OI)	2,11,39,560	4.0% ▲
Change in OI (abs)	2,11,39,560	8,18,740 ▲
Premium / Discount (Abs)	25	35 ▲
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	56,207	0.24% ▼
Open interest (OI)	24,31,260	0.6% ▼
Change in OI (abs)	24,31,260	15,360 ▼
Premium / Discount (Abs)	117	78 ▲
Inference	Long Unwinding	

Volatility Insights

	Value	Change
India VIX Index	19.71	1.12 ▲
Nifty ATM IV (%)	17.75	1.41 ▲
Bank Nifty ATM IV (%)	19.98	0.47 ▲
PCR (Nifty)	0.78	0.14 ▼
PCR (Bank Nifty)	0.92	0.01 ▲

The FII Long Ratio in Index Futures **drop** to **19.3%**, **down** from **20.7 %** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PIIND	29,30,025	12.0%	3078.9	0.0%
COALINDIA	7,02,20,250	8.3%	456.7	1.0%
POLICYBZR	89,85,900	7.0%	1700.3	1.7%
DIXON	31,03,050	6.6%	10858.5	0.3%
HINDALCO	3,83,04,000	4.3%	1045.7	0.6%

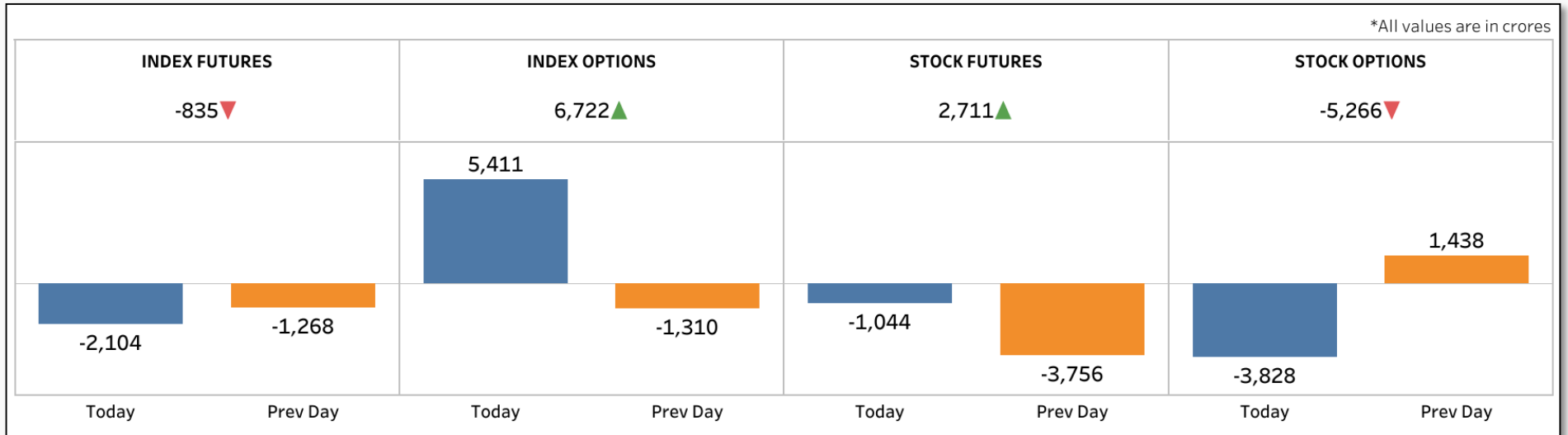
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DRREDDY	1,73,78,750	10.3%	1307.9	-1.2%
INFY	9,33,46,800	10.1%	1159.1	-6.3%
IEX	8,17,42,500	8.9%	123.22	-3.3%
HYUNDAI	85,51,125	8.6%	1782.7	-3.5%
ALKEM	13,36,375	8.1%	5248.5	-4.8%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PPLPHARMA	50,37,375	-38.9%	166.11	1.7%
HUDCO	1,72,66,050	-24.3%	211.66	3.3%
OFSS	14,64,900	-10.1%	8907.5	1.4%
PREMIERENE	1,13,14,850	-8.5%	1010.5	1.0%
JUBLFOOD	4,67,88,750	-6.7%	492.7	0.4%

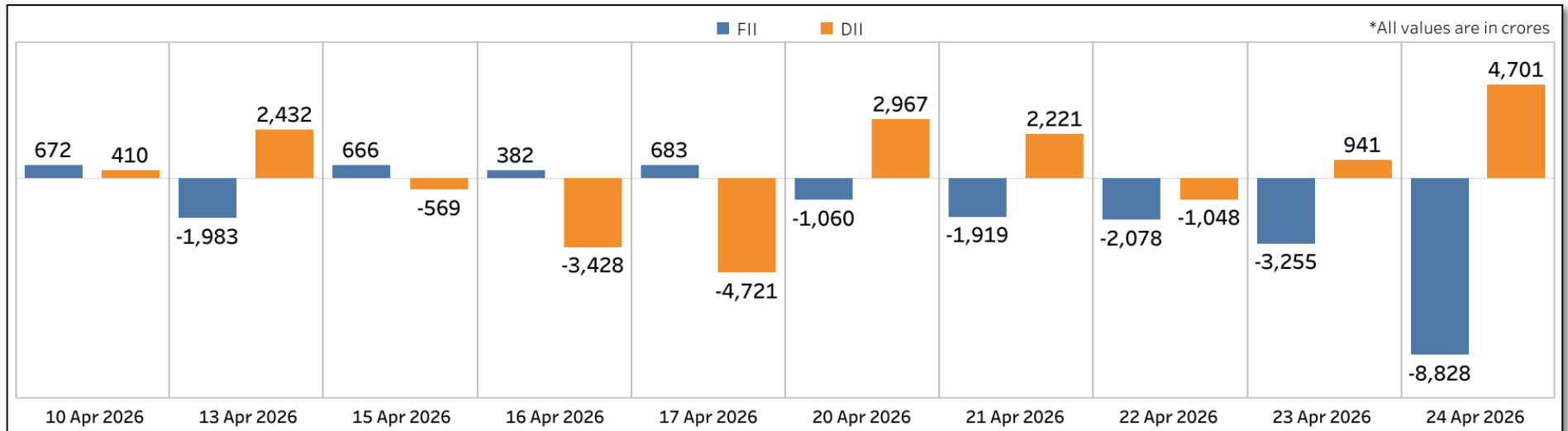
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ASTRAL	1,13,70,450	-12.8%	1570.8	-0.3%
NUVAMA	18,90,000	-10.3%	1344.3	-2.4%
KEI	20,50,475	-9.6%	4833.1	-0.5%
LTM	40,88,700	-9.1%	4295.3	-5.2%
HINDZINC	3,93,62,925	-8.4%	589.75	-0.7%

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

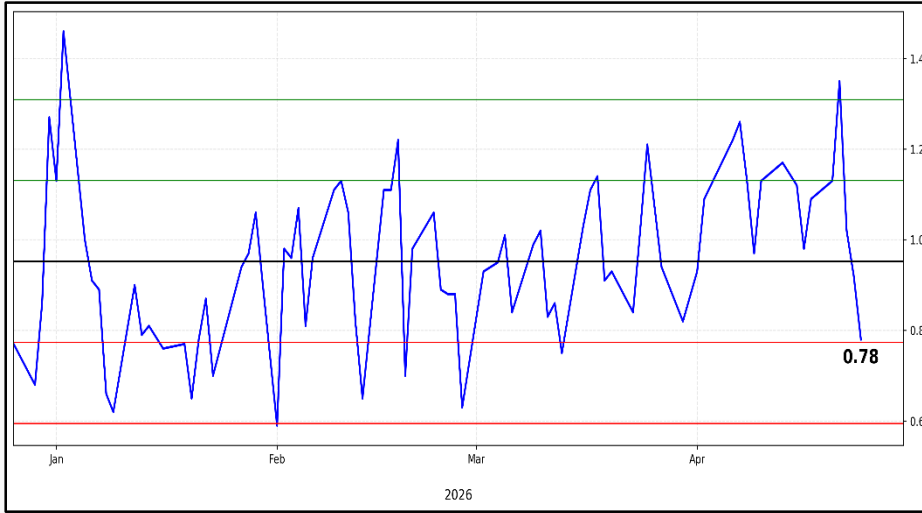
Daily Net Open Interest Change



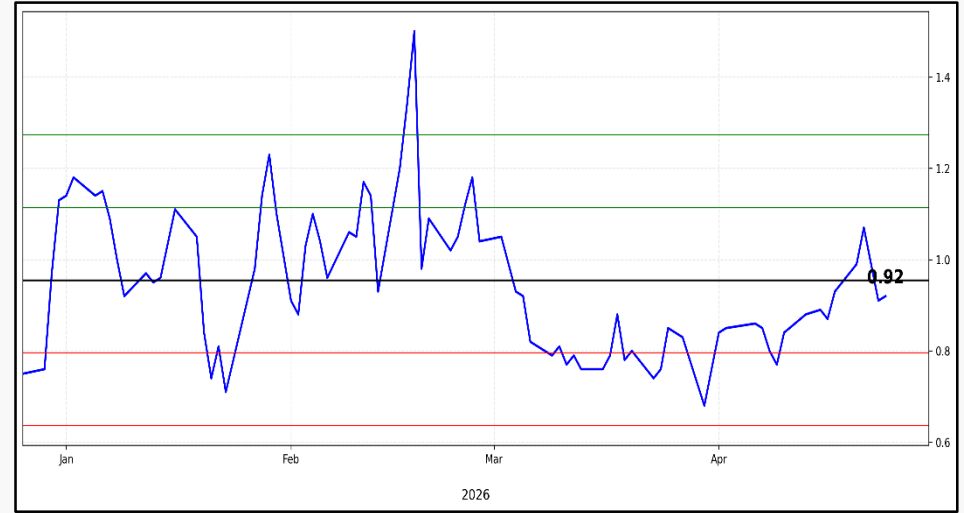
DII and FII Daily Cash Market Flows



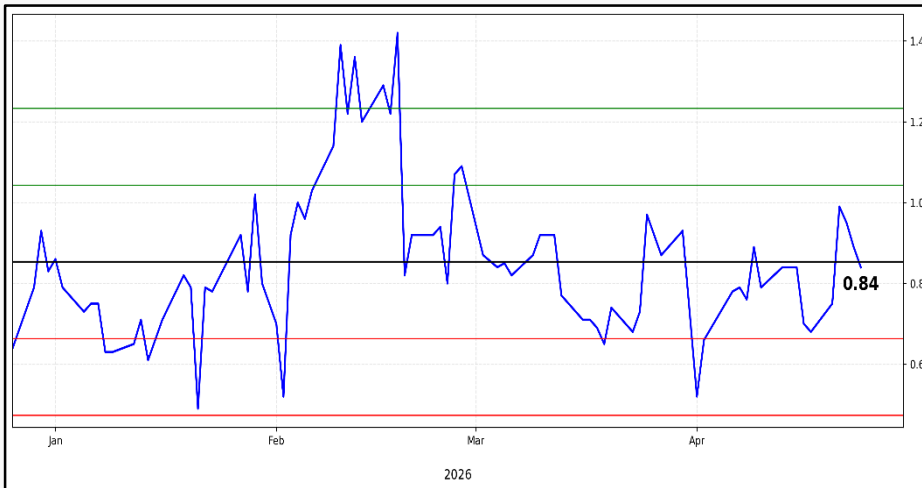
Nifty



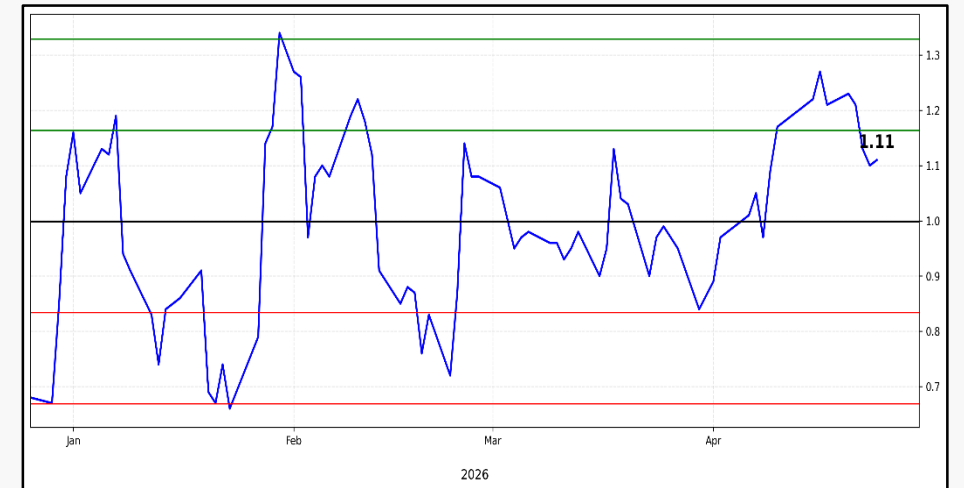
Bank Nifty



Fin Nifty



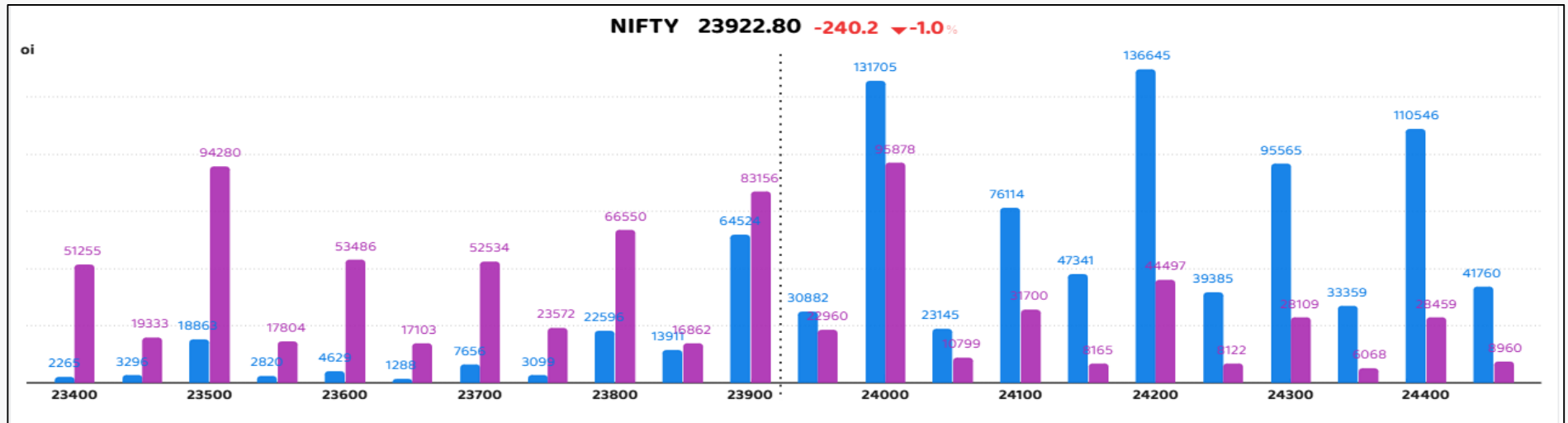
Midcap Select Nifty



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 24,200 Call and 24,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 57,000 Call and the 56,000 Put saw the most amount of open interest.

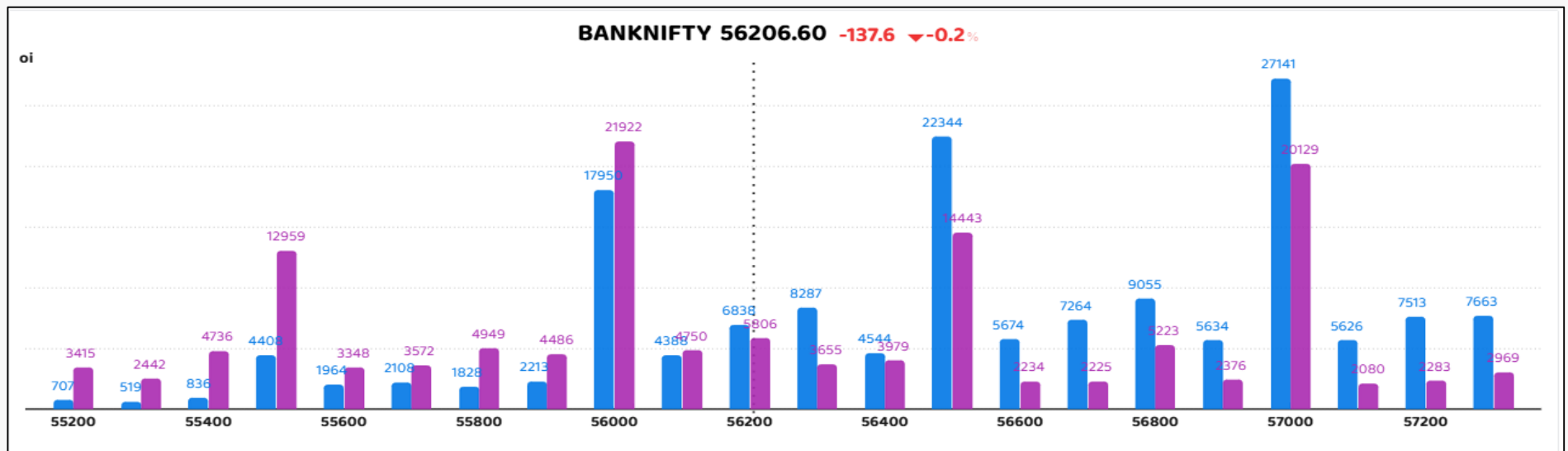
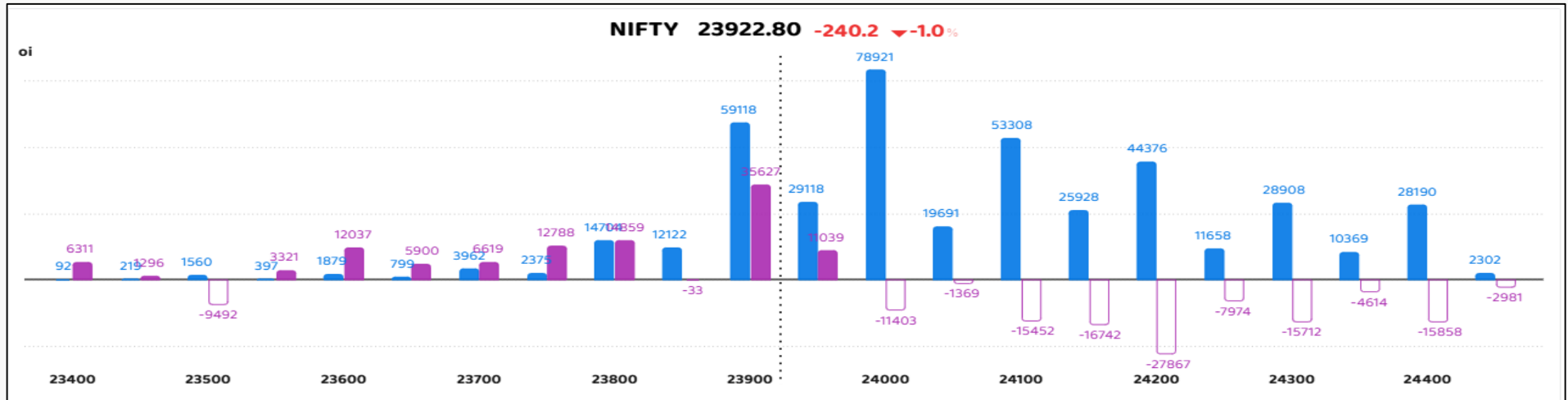


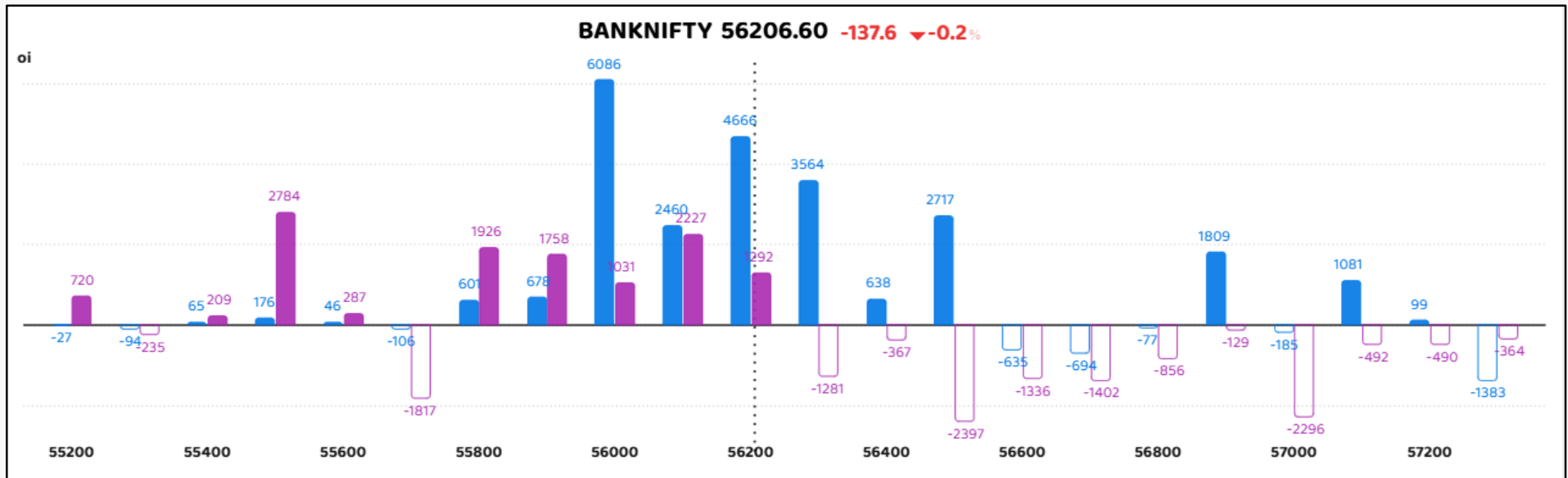
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,000 Call and the 23,900 Put



For the Bank Nifty, the biggest open interest changes were seen at the 56,000 Call & the 55,500 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
SUN PHARMA INDU	1620.4	-3.6	31.0	31.0	14.1	100.0
ALKEM LABORATORI	5235.0	-5.2	38.4	38.4	13.7	100.0
PAGE INDUSTRIES	37665.0	-0.8	38.8	38.8	15.7	100.0
BRITANNIA INDS	5730.5	1.0	29.8	29.9	16.3	99.2
TORRENT PHARMA	4117.2	-2.2	31.2	32.2	15.4	94.3

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ASHOK LEYLAND	169.9	-0.4	42.7	734.8	18.5	3.4
ADITYA BIRLA CAP	340.6	-2.6	39.8	658.6	8.2	4.9
HINDALCO INDS	1048.4	0.7	35.4	254.2	12.3	9.5
CHOLAMANDALAM IN	1568.2	1.6	37.3	186.8	19.6	10.6
REC LTD	374.0	-0.7	36.4	244.9	8.0	12.0

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
SUN PHARMA INDU	1620.4	-3.6	31.0	31.0	14.1	100.0
ALKEM LABORATORI	5235.0	-5.2	38.4	38.4	13.7	100.0
PAGE INDUSTRIES	37665.0	-0.8	38.8	38.8	15.7	100.0
VARUN BEVERAGES	490.5	1.3	46.2	47.0	21.4	99.9
GLENMARK PHARMA	2299.5	-1.5	40.9	42.2	22.9	99.7

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MAZAGON DOCK SHI	2680.4	-0.5	4.0	56.3	4.0	0.0
VEDANTA LTD	721.0	-2.0	18.8	46.2	9.6	2.0
STEEL AUTHORITY	178.5	1.1	21.9	91.3	0.6	7.9
VODAFONE IDEA LT	9.5	-0.6	50.2	212.9	10.0	22.3
WIPRO LTD	199.4	-1.7	22.7	67.3	5.0	24.9

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PIIND	3,081.2	0.4	38,674.0	6,738.0	5.7
MARICO	783.3	0.6	13,363.0	2,832.0	4.7
OIL	473.7	0.0	31,990.0	7,055.0	4.5
NMDC	89.3	2.3	24,920.0	6,641.0	3.8
BRITANNIA	5,730.5	1.0	25,686.0	7,514.0	3.4

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
BAJAJHLDNG	10,259.5	-1.1	1,559.0	5,510.0	3.5
BOSCHLTD	36,690.0	-1.8	10,820.0	26,696.0	2.5
PAGEIND	37,665.0	-0.8	2,701.0	6,110.0	2.3
SHREECEM	24,950.0	-2.0	1,616.0	3,632.0	2.2
ALKEM	5,235.0	-5.2	6,577.0	11,962.0	1.8

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
ADANIENT	2,287.6	-0.5	30,722.0	29,904.0	100.0
ADANIGREEN	1,235.8	1.8	23,328.0	20,446.0	100.0
HCLTECH	1,203.2	-5.8	116,449.0	113,570.0	100.0
TECHM	1,358.7	-4.4	24,167.0	21,168.0	100.0
RBLBANK	321.4	2.8	10,384.0	9,797.0	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
ADANIENSOL	1,412.0	3.7	8,776.0	7,292.0	100.0
HCLTECH	1,203.2	-5.8	52,714.0	49,672.0	100.0
AUBANK	1,065.6	0.9	8,342.0	8,270.0	100.0
RELIANCE	1,327.8	-1.2	90,522.0	86,995.0	100.0
RBLBANK	321.4	2.8	9,852.0	9,642.0	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
ADANIENSOL	1,412.0	3.7	85,351.0	53,306.0	100.0
ADANIGREEN	1,235.8	1.8	136,507.0	72,764.0	100.0
HUDCO	211.4	3.4	67,079.0	42,388.0	100.0
NMDC	89.3	2.3	24,920.0	24,747.0	100.0
IEX	123.2	-2.9	44,618.0	36,399.0	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
ADANIENSOL	1,412.0	3.7	50,658.0	16,965.0	100.0
ADANIGREEN	1,235.8	1.8	54,225.0	26,828.0	100.0
CIPLA	1,295.0	-0.8	49,510.0	38,398.0	100.0
POWERINDIA	32,200.0	1.5	32,585.0	30,907.0	100.0
SOLARINDS	15,056.0	-4.4	41,325.0	27,289.0	100.0

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
HCLTECH	1,203.2	-5.8	116,449.0	26,059.6	4.5
HAVELLS	1,238.6	-1.7	24,532.0	7,085.4	3.5
360ONE	1,039.6	-1.2	9,840.0	3,409.0	2.9
SBILIFE	1,768.9	-3.2	21,712.0	7,787.3	2.8
NESTLEIND	1,421.3	0.8	19,986.0	8,452.0	2.4

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
HCLTECH	1,203.2	-5.8	52,714.0	17,261.2	3.1
ADANIENSOL	1,412.0	3.7	8,776.0	3,262.6	2.7
NESTLEIND	1,421.3	0.8	13,896.0	5,255.5	2.6
OFSS	8,949.5	1.8	17,369.0	6,696.2	2.6
PNBHOUSING	1,033.6	2.6	8,443.0	3,401.8	2.5

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
HUDCO	211.4	3.4	67,079.0	5,732.2	11.7
PIIND	3,081.2	0.4	38,674.0	5,111.0	7.6
ADANIENSOL	1,412.0	3.7	85,351.0	14,441.2	5.9
INFY	1,154.6	-7.0	511,347.0	89,624.2	5.7
ADANIGREEN	1,235.8	1.8	136,507.0	27,740.1	4.9

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
INFY	1,154.6	-7.0	529,476.0	54,502.2	9.7
TIINDIA	2,968.7	-3.8	20,071.0	2,305.5	8.7
ADANIENSOL	1,412.0	3.7	50,658.0	6,512.4	7.8
ALKEM	5,235.0	-5.2	11,962.0	1,652.2	7.2
CIPLA	1,295.0	-0.8	49,510.0	7,170.4	6.9

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
ADANIANT	2300	558981	0.5%	2288	2000	521283	-12.6%	JIOFIN	250	7900700	1.7%	246	240	3320550	-2.3%
ADANIPTS	1600	881600	0.9%	1585	1500	934325	-5.4%	JSWSTEEL	1300	704025	3.5%	1256	1260	450225	0.3%
APOLLOHOSP	8000	85000	3.5%	7733	6700	72750	-13.4%	KOTAKBANK	370	3660000	-0.2%	371	335	3216000	-9.7%
ASIANPAINT	2600	459250	4.6%	2485	2400	415250	-3.4%	LT	4100	960050	2.1%	4014	4000	432600	-0.4%
AXISBANK	1400	2106250	2.5%	1366	1300	1115000	-4.8%	M&M	3250	659400	7.0%	3038	2800	222800	-7.8%
BAJAJ-AUTO	10000	139650	4.4%	9576	8000	113400	-16.5%	MARUTI	13500	191700	3.5%	13048	11000	59800	-15.7%
BAJAJFINSV	1820	328500	2.8%	1771	1760	332250	-0.6%	MAXHEALTH	1020	611625	2.1%	999	1000	226275	0.1%
BAJFINANCE	950	2095500	3.1%	922	800	765750	-13.2%	NESTLEIND	1420	692000	-0.1%	1421	1300	472000	-8.5%
BEL	460	3723525	3.5%	444	450	1883850	1.2%	NTPC	395	8148000	-1.7%	402	400	4212000	-0.5%
BHARTIARTL	1860	1754650	2.5%	1815	1800	777100	-0.8%	ONGC	290	12078000	1.8%	285	270	3836250	-5.2%
CIPLA	1350	302625	4.2%	1295	1160	511500	-10.4%	POWERGRID	315	6313700	-0.4%	316	300	2709400	-5.2%
COALINDIA	460	3211650	0.9%	456	400	1826550	-12.3%	RELIANCE	1400	9153500	5.4%	1328	1300	5509000	-2.1%
DRREDDY	1350	1058125	2.5%	1317	1200	551250	-8.9%	SBILIFE	2000	1276125	13.1%	1769	1600	303375	-9.5%
EICHERMOT	8000	264900	12.5%	7112	6500	128900	-8.6%	SBIN	1200	2474250	9.0%	1101	1000	3139500	-9.2%
ETERNAL	260	5883050	1.3%	257	250	3741775	-2.6%	SHRIRAMFIN	1100	1835625	8.8%	1011	1000	1055175	-1.1%
GRASIM	2800	294500	2.2%	2739	2700	126500	-1.4%	SUNPHARMA	1700	960400	4.9%	1620	1600	553000	-1.3%
HCLTECH	1300	3417400	8.0%	1203	1200	747250	-0.3%	TATACONSUM	1200	255750	2.2%	1174	930	442200	-20.8%
HDFCBANK	800	9541950	1.9%	785	750	2458500	-4.4%	TMPV	360	7387200	2.7%	351	300	2140000	-14.4%
HDFCLIFE	600	2117500	2.0%	588	520	778800	-11.6%	TATASTEEL	195	11022000	-7.2%	210	195	8882500	-7.2%
HINDALCO	900	2189600	-14.2%	1048	1000	1123500	-4.6%	TCS	2600	2295125	8.5%	2397	2500	438725	4.3%
HINDUNILVR	2260	1257600	-2.9%	2327	2240	449700	-3.8%	TECHM	1500	2134200	10.4%	1359	1340	396000	-1.4%
ICICIBANK	1400	4180400	5.6%	1326	1300	1894200	-2.0%	TITAN	4500	424375	2.0%	4410	4400	235375	-0.2%
INDIGO	4700	808200	3.9%	4523	4500	325650	-0.5%	TRENT	4500	762100	4.7%	4297	4200	204800	-2.3%
INFY	1300	3252400	12.6%	1155	1280	1669600	10.9%	ULTRACEMCO	12500	191750	4.2%	11998	12100	45150	0.9%
ITC	310	16265600	2.8%	302	300	4388800	-0.5%	WIPRO	210	23502000	5.3%	199	190	4989000	-4.7%

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

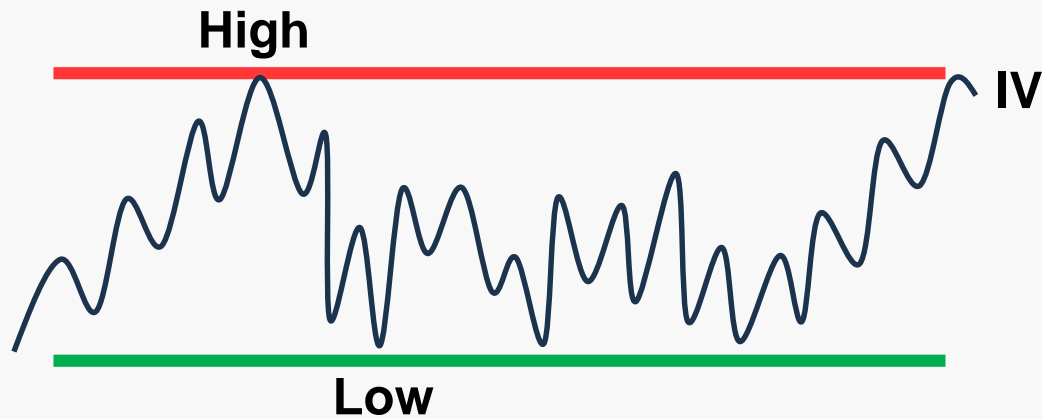


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.



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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