



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	24,252	0.8%▲
Open Interest (OI)	1,56,98,540	0.1%▲
Change in OI (abs)	1,56,98,540	14,560▲
Premium / Discount (Abs)	74	1▲
Inference	Long Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	55,614	0.24%▼
Open interest (OI)	21,17,460	1.4%▲
Change in OI (abs)	21,17,460	29,040▲
Premium / Discount (Abs)	210	135▼
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	17.44	0.61▼
Nifty ATM IV (%)	16.40	0.88▼
Bank Nifty ATM IV (%)	18.96	0.82▼
PCR (Nifty)	1.04	0.06▲
PCR (Bank Nifty)	0.94	0.04▼

The FII Long Ratio in Index Futures **drop** to **12.3%**, **down** from **13 %** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
COCHINSHIP	23,78,800	43.4%	1782.7	4.7%
GODFRYPHLP	14,97,375	24.9%	2285.1	7.5%
KFINTECH	29,70,625	10.8%	968.2	1.4%
FORCEMOT	2,48,575	10.2%	20880	1.7%
CROMPTON	5,02,61,250	7.9%	276.61	2.0%

Short Buildup (Open Interest Higher + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
INDIANB	1,16,19,000	21.2%	879.55	-2.5%
NHPC	9,75,44,100	16.7%	83.2	-2.9%
BDL	36,50,550	14.5%	1382.5	-1.2%
BPCL	5,13,42,100	13.5%	305.65	-1.3%
DRREDDY	1,52,95,000	10.0%	1323.8	-2.3%

Short Covering (Open Interest Lower + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
COALINDIA	5,38,52,850	-3.4%	482.4	2.8%
INDUSINDBK	3,50,58,800	-3.0%	917.3	2.9%
RELIANCE	10,12,64,500	-2.9%	1429.6	2.6%
BHARTIARTL	5,87,71,275	-2.8%	1892.9	2.3%
POLICYBZR	83,36,300	-2.6%	1692.6	1.1%

Long Unwinding (Open Interest Lower + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
KEI	15,80,775	-3.6%	4959.4	-0.3%
AUROPHARMA	1,95,22,800	-3.4%	1404.2	-1.9%
PAYTM	1,38,21,400	-2.6%	1109.05	-2.3%
SONACOMS	1,45,00,325	-2.3%	601.4	-0.2%
NATIONALUM	5,02,44,375	-2.0%	431.25	-2.3%

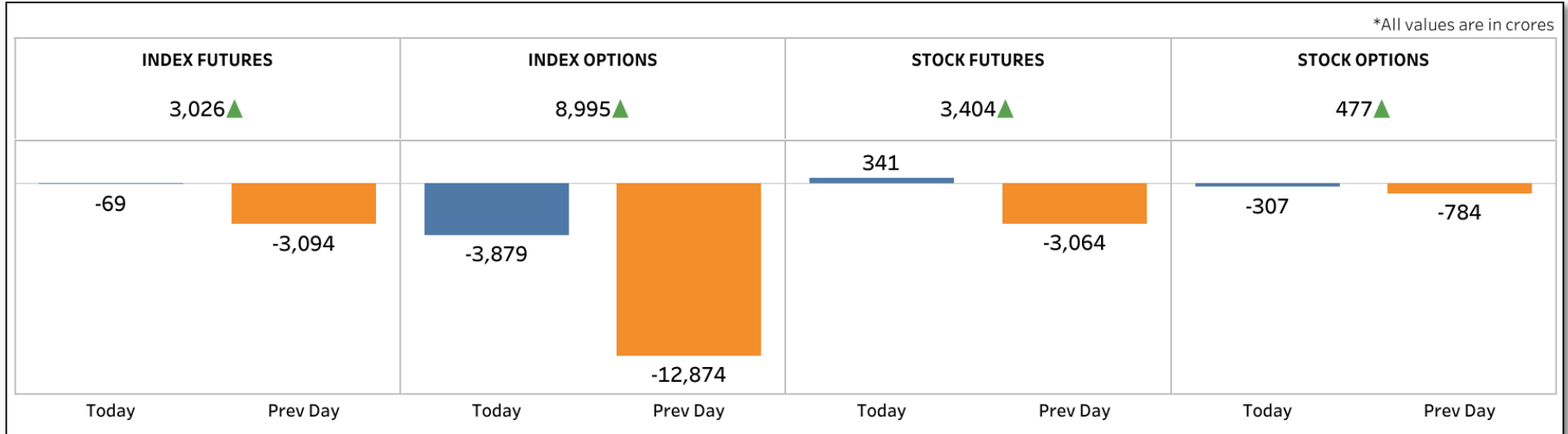
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

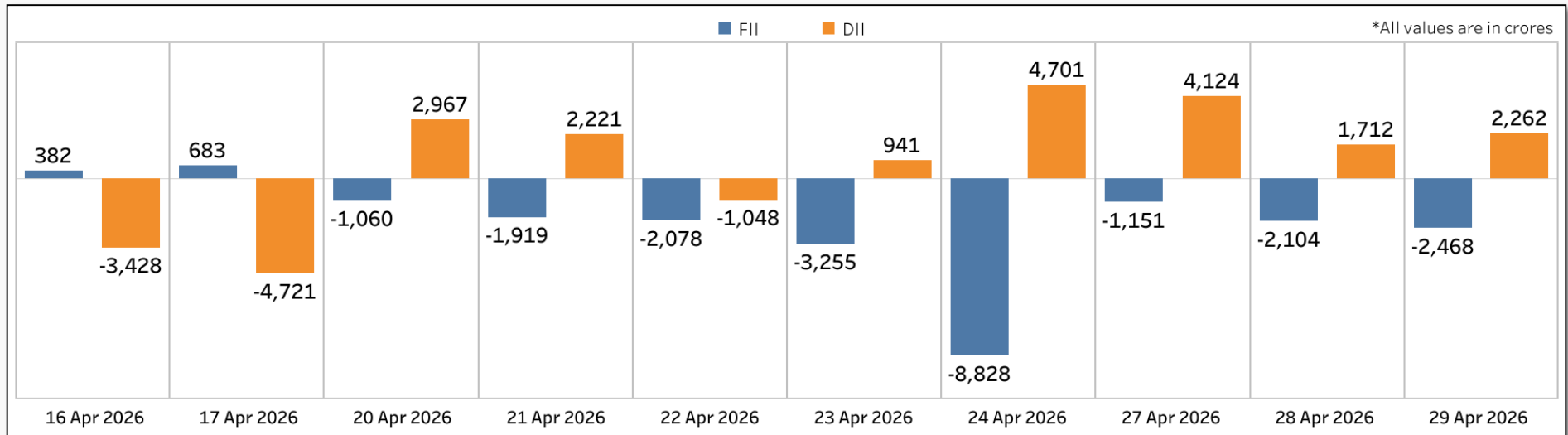
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-17,001 ▼	-35,683 ▼	-26,119 ▼	138,846 ▲	7,287 ▲	6,968 ▲	5,805 ▲	58,170 ▲
2,761	35,303	15,758	33,746	3,910	284	416	
-14,240	-380	-10,361		-3,377	-6,684	-5,389	-46,673
			-105,100				-104,843
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-216,058	-171,058	333,151	828,904	3,930	45,442	49,572	-3,841,990
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-148,179 ▼	-1,309 ▼	11,221 ▲	32,531 ▲	157,892 ▲	30,024 ▲	9,094 ▲	-229,547 ▼
92,046		21,892	10,671	66,462			233,615
	-6,996		8,859		7,092		4,068
-56,133	-5,687		-23,672	-91,430	-22,932	-11,947	-21,041
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
155,475	117,562	-553,415	2,575,582	56,652	8,054	170,692	437,504
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day

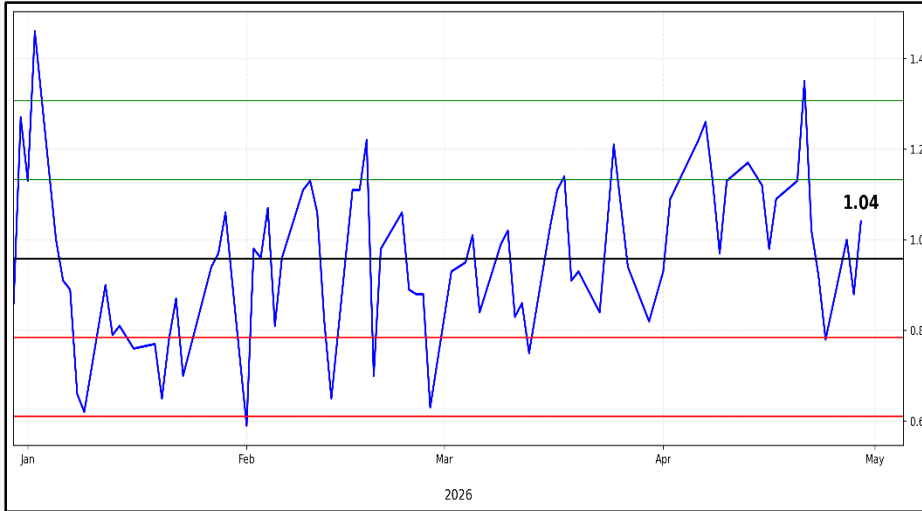
Daily Net Open Interest Change



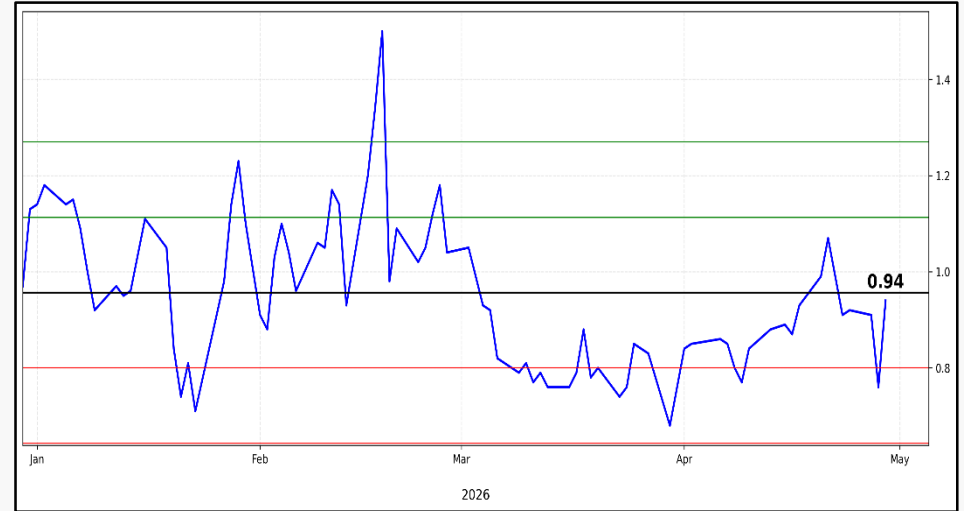
DII and FII Daily Cash Market Flows



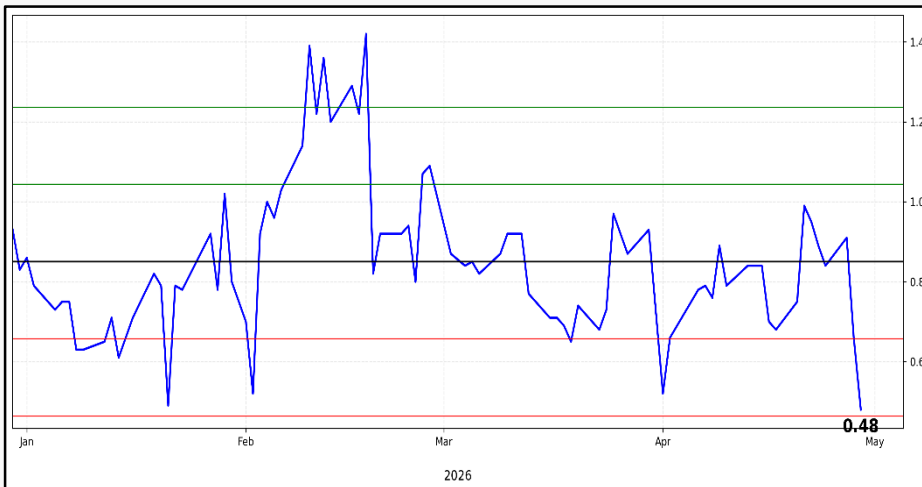
Nifty



Bank Nifty



Fin Nifty



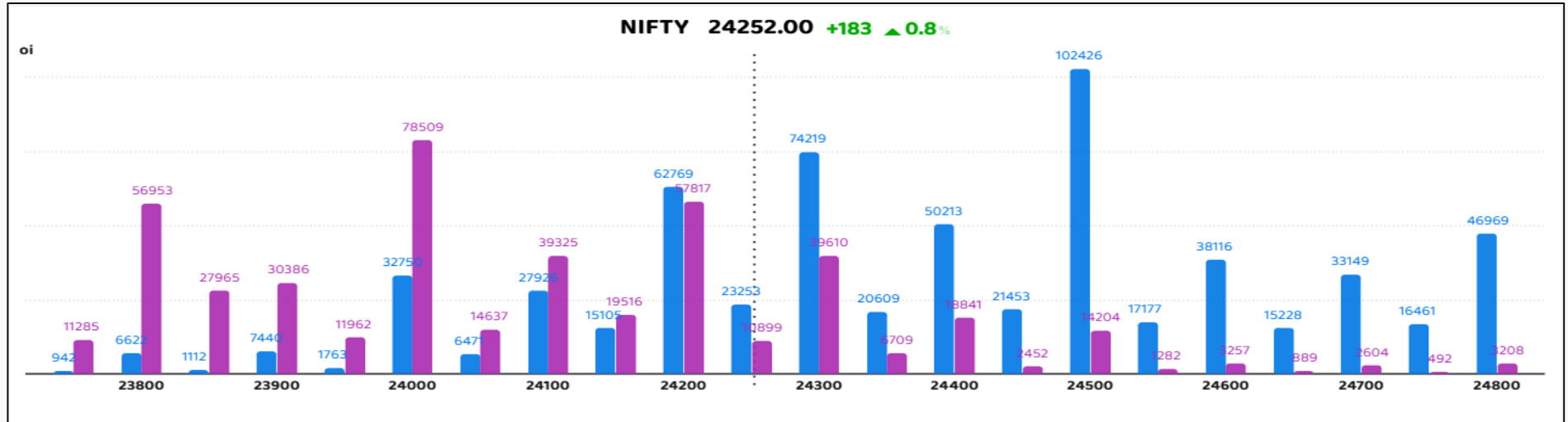
Midcap Select Nifty



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 56,000 Put saw the most amount of open interest.

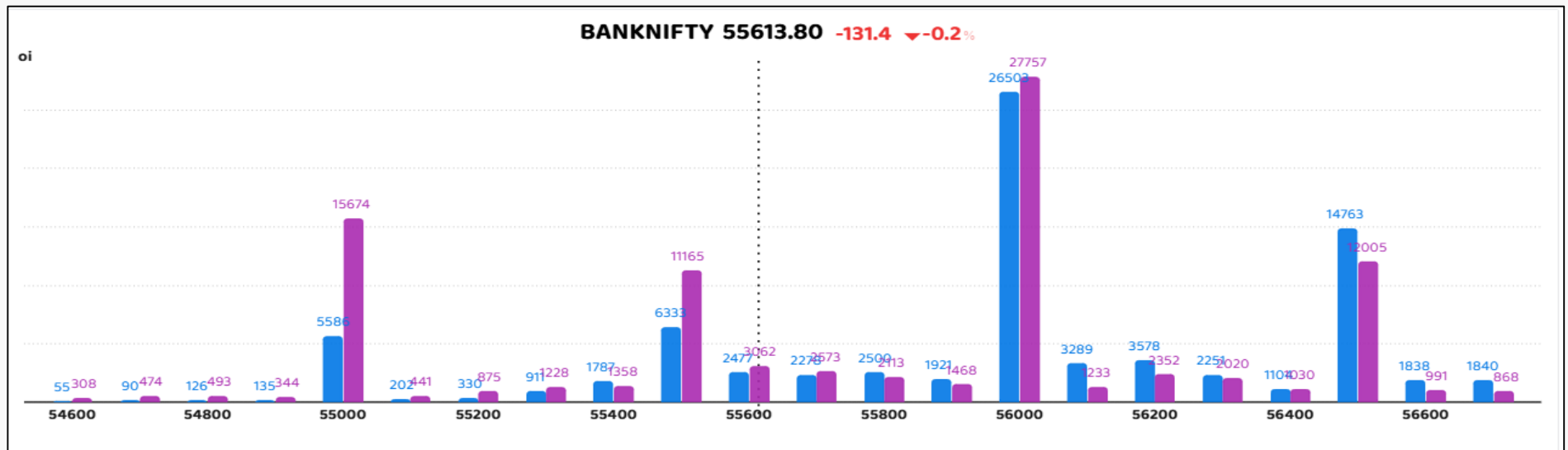
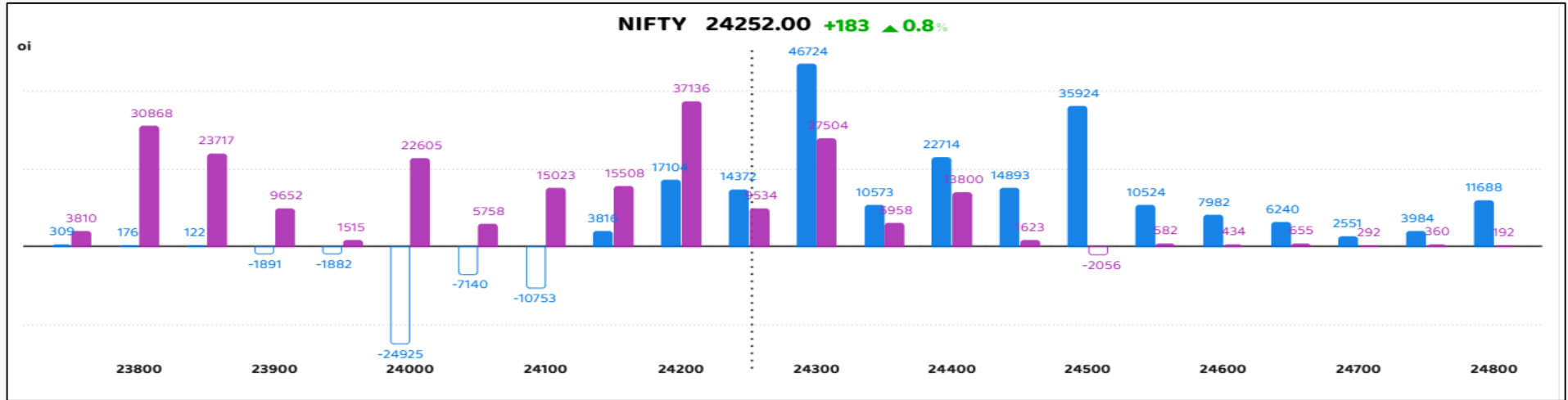


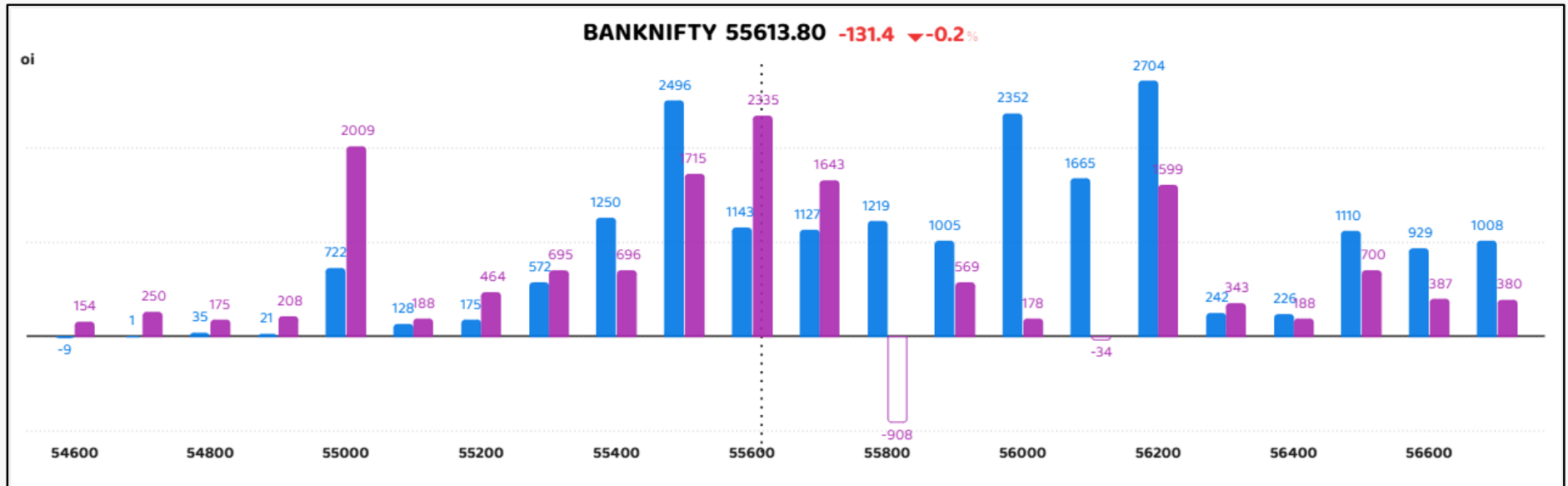
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,300 Call and the 23,800 Put



For the Bank Nifty, the biggest open interest changes were seen at the 56,200 Call & the 55,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HINDUSTAN UNILEV	2314.4	1.1	28.4	31.6	0.8	89.5
BHARAT HEAVY ELE	344.5	-2.9	42.3	47.9	5.2	86.9
ASIAN PAINTS LTD	2447.3	-0.6	33.5	37.1	9.5	86.8
COLGATE PALMOLIV	2132.5	0.3	30.6	33.8	9.7	86.7
POLYCAB INDIA LT	8148.5	-1.3	38.2	44.0	2.8	85.9

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ASHOK LEYLAND	165.7	-1.1	42.4	734.8	18.5	3.3
ADITYA BIRLA CAP	348.5	3.0	40.2	658.6	8.2	4.9
HINDALCO INDS	1067.2	-0.7	33.1	254.2	12.3	8.6
REC LTD	363.6	-3.3	30.3	244.9	8.0	9.4
CHOLAMANDALAM IN	1553.3	1.1	35.5	186.8	19.6	9.5

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ADANI GREEN ENER	1244.8	-0.4	100.6	100.6	30.1	100.0
TORRENT POWER LT	1701.7	-3.0	46.0	47.5	21.8	99.6
PIRAMAL PHARMA L	160.2	-2.6	50.5	58.0	24.9	99.0
UNO MINDA LTD	1131.8	0.2	43.3	46.3	10.9	98.9
HINDUSTAN UNILEV	2314.4	1.1	28.4	31.6	0.8	98.4

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
VEDANTA LTD	773.6	4.6	18.1	46.2	9.2	2.7
VODAFONE IDEA LT	10.3	3.4	48.8	212.9	10.0	18.8
BSE LTD	3635.7	0.3	40.8	57.7	32.9	30.4
YES BANK LTD	20.3	1.5	28.1	47.2	8.1	32.7
RBL BANK LTD	341.2	6.4	30.6	71.1	10.6	45.7

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
MAZDOCK	2,769.8	3.2	66,172.0	15,505.0	4.3
CROMPTON	276.0	2.4	24,844.0	6,392.0	3.9
TVSMOTOR	3,553.9	1.7	15,494.0	4,021.0	3.9
BIOCON	362.2	-0.2	17,948.0	4,672.0	3.8
OIL	492.8	-0.9	11,471.0	3,199.0	3.6

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
NYKAA	267.8	-0.8	1,288.0	3,996.0	3.1
SOLARINDS	15,377.0	0.5	2,784.0	4,455.0	1.6
INDIGO	4,345.2	-2.2	16,670.0	21,462.0	1.3
PAYTM	1,104.2	-2.2	7,228.0	9,165.0	1.3
MANKIND	2,256.7	-0.3	1,245.0	1,550.0	1.2

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
FEDERALBNK	284.8	-2.0	14,977.0	14,414.0	100.0
POWERINDIA	32,885.0	0.2	7,511.0	7,375.0	100.0
TATASTEEL	215.9	0.4	24,682.0	30,237.0	81.6
SBICARD	651.2	0.6	9,341.0	12,636.0	73.9
SHRIRAMFIN	956.8	0.4	20,031.0	28,056.0	71.4

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
INDUSTOWER	413.9	0.0	9,065.0	10,139.0	89.4
BANDHANBNK	198.3	11.0	7,569.0	9,048.0	83.7
FEDERALBNK	284.8	-2.0	6,970.0	8,478.0	82.2
TATASTEEL	215.9	0.4	16,999.0	22,389.0	75.9
UNIONBANK	167.3	-1.9	6,894.0	9,123.0	75.6

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
FEDERALBNK	284.8	-2.0	75,544.0	36,121.0	100.0
BANDHANBNK	198.3	11.0	78,962.0	38,839.0	100.0
MARUTI	13,257.0	2.8	170,301.0	170,705.0	99.8
IDEA	10.3	3.4	28,249.0	31,139.0	90.7
VEDL	773.6	4.6	96,999.0	111,542.0	87.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
FEDERALBNK	284.8	-2.0	38,449.0	17,216.0	100.0
BANDHANBNK	198.3	11.0	45,736.0	44,739.0	100.0
INDIANB	875.6	-2.3	19,439.0	13,856.0	100.0
VEDL	773.6	4.6	48,559.0	55,217.0	87.9
MARUTI	13,257.0	2.8	80,358.0	92,014.0	87.3

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
FEDERALBNK	284.8	-2.0	14,977.0	6,607.2	2.3
POWERINDIA	32,885.0	0.2	7,511.0	4,535.9	1.7
HCLTECH	1,200.2	0.4	58,598.0	38,405.7	1.5
ETERNAL	254.0	0.4	35,377.0	24,970.6	1.4
ULTRACEMCO	11,833.0	0.1	20,437.0	14,874.2	1.4

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
INDUSTOWER	413.9	0.0	9,065.0	6,434.8	1.4
BANDHANBNK	198.3	11.0	7,569.0	5,454.0	1.4
HCLTECH	1,200.2	0.4	31,098.0	22,697.4	1.4
FEDERALBNK	284.8	-2.0	6,970.0	5,560.8	1.3
UNIONBANK	167.3	-1.9	6,894.0	5,899.2	1.2

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
BANDHANBNK	198.3	11.0	78,962.0	7,139.0	11.1
FEDERALBNK	284.8	-2.0	75,544.0	8,892.0	8.5
ETERNAL	254.0	0.4	135,579.0	33,424.8	4.1
INDIANB	875.6	-2.3	25,337.0	6,314.1	4.0
CROMPTON	276.0	2.4	24,844.0	7,632.2	3.3

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
BANDHANBNK	198.3	11.0	45,736.0	4,430.4	10.3
FEDERALBNK	284.8	-2.0	38,449.0	5,047.2	7.6
INDIANB	875.6	-2.3	19,439.0	2,872.0	6.8
NYKAA	267.8	-0.8	3,996.0	1,087.2	3.7
ETERNAL	254.0	0.4	61,122.0	20,795.1	2.9

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	2500	1229820	3.1%	2426	2200	651990	-9.3%	JIOFIN	250	8610400	-0.3%	251	250	5355650	-0.3%
ADANIPTS	1640	866875	-1.3%	1661	1600	930050	-3.7%	JSWSTEEL	1300	652050	1.6%	1280	1200	440100	-6.2%
APOLLOHOSP	7800	96750	1.2%	7709	7200	46875	-6.6%	KOTAKBANK	400	5362000	4.7%	382	360	5648000	-5.8%
ASIANPAINT	2500	398750	2.2%	2447	2400	461000	-1.9%	LT	4400	423500	7.4%	4096	3800	499100	-7.2%
AXISBANK	1400	1461875	8.0%	1296	1300	1013750	0.3%	M&M	3200	523000	1.5%	3152	3100	927200	-1.7%
BAJAJ-AUTO	10000	86325	4.8%	9544	9000	107100	-5.7%	MARUTI	14000	226900	5.6%	13257	13000	108850	-1.9%
BAJAJFINSV	1820	339250	3.2%	1764	1680	303250	-4.8%	MAXHEALTH	1100	376950	9.3%	1007	1000	217350	-0.7%
BAJFINANCE	1000	2043750	7.5%	930	900	2287500	-3.2%	NESTLEIND	1440	338500	-1.7%	1466	1400	581000	-4.5%
BEL	500	4121100	14.3%	438	430	2244375	-1.7%	NTPC	450	3520500	12.1%	401	400	2038500	-0.3%
BHARTIARTL	1900	1172300	0.6%	1888	1840	563350	-2.5%	ONGC	300	4963500	-0.5%	301	280	3998250	-7.1%
CIPLA	1360	520125	3.2%	1318	1250	542250	-5.1%	POWERGRID	320	2627700	-0.1%	320	300	1740400	-6.4%
COALINDIA	500	2871450	4.2%	480	450	2878200	-6.2%	RELIANCE	1500	4210000	5.2%	1425	1400	2729000	-1.8%
DRREDDY	1400	1345000	5.3%	1330	1300	641250	-2.2%	SBILIFE	2000	463875	10.1%	1816	1700	290250	-6.4%
EICHERMOT	7200	109100	0.1%	7190	6800	96800	-5.4%	SBIN	1100	3823500	1.2%	1087	1100	3433500	1.2%
ETERNAL	260	17161725	2.4%	254	250	6295300	-1.6%	SHRIRAMFIN	1100	3426225	15.0%	957	900	1014750	-5.9%
GRASIM	2800	248000	-0.1%	2803	2800	189500	-0.1%	SUNPHARMA	1800	1090950	1.2%	1779	1700	599550	-4.4%
HCLTECH	1300	4302550	8.3%	1200	1200	1917300	0.0%	TATACONSUM	1200	322850	2.7%	1168	1100	239250	-5.8%
HDFCBANK	800	9545250	2.7%	779	800	3696000	2.7%	TMPV	360	2392800	2.1%	353	300	1488800	-14.9%
HDFCLIFE	610	1523500	2.6%	594	560	1116500	-5.8%	TATASTEEL	210	16222250	-2.7%	216	210	11459250	-2.7%
HINDALCO	1100	742700	3.1%	1067	1000	644700	-6.3%	TCS	2500	1410500	1.0%	2475	3120	671125	26.1%
HINDUNILVR	2400	559500	3.7%	2314	2400	306000	3.7%	TECHM	1500	1144800	2.8%	1460	1300	458400	-10.9%
ICICIBANK	1400	3172400	9.3%	1281	1300	2501100	1.5%	TITAN	4500	227500	1.4%	4440	4300	169925	-3.1%
INDIGO	5000	277950	15.1%	4345	4200	206100	-3.3%	TRENT	4500	585900	6.4%	4228	4200	178400	-0.7%
INFY	1300	4861200	11.3%	1168	1100	1946400	-5.8%	ULTRACEMCO	13000	215950	9.9%	11833	12000	76550	1.4%
ITC	350	7947200	10.7%	316	290	5326400	-8.3%	WIPRO	210	18381000	4.6%	201	200	9477000	-0.3%

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

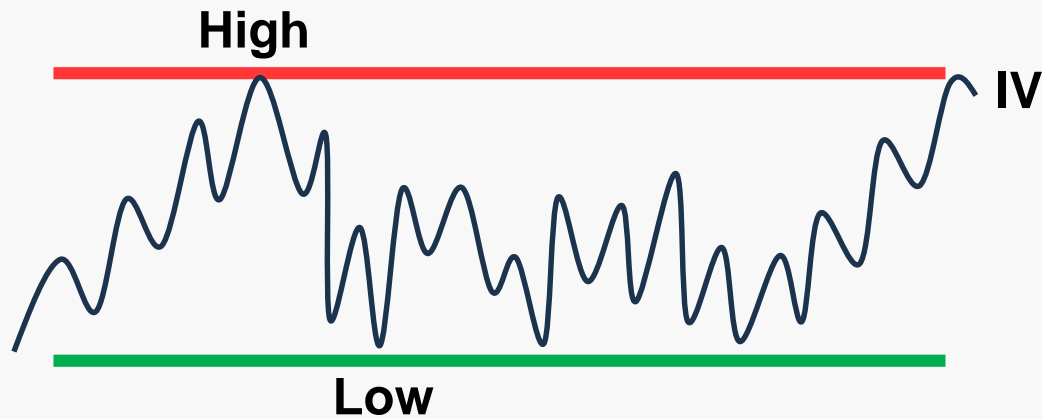


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

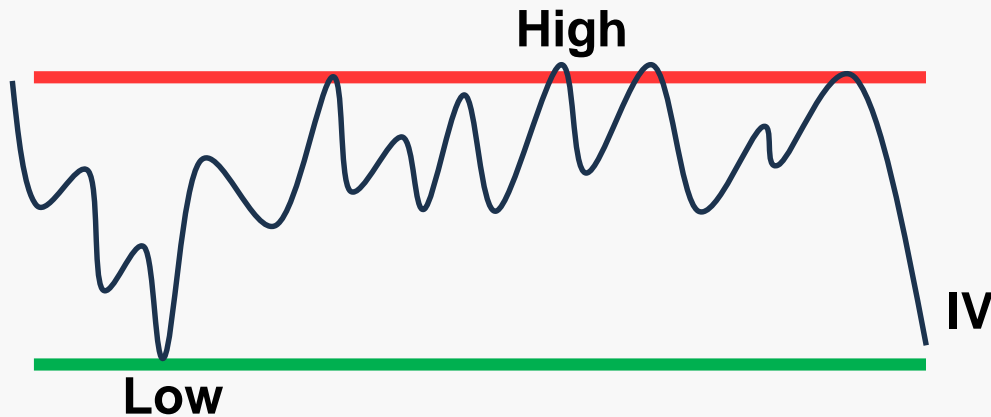


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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