



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	24,431	0.5%▼
Open Interest (OI)	1,54,79,475	0.6%▲
Change in OI (abs)	1,54,79,475	97,500▲
Premium / Discount (Abs)	52	41▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	54,363	1.3%▼
Open interest (OI)	23,05,790	5.4%▼
Change in OI (abs)	23,05,790	1,31,715▼
Premium / Discount (Abs)	92	70▼
Inference	Long Unwinding	

Volatility Insights

	Value	Change
India VIX Index	19	0.66▲
Nifty ATM IV (%)	15.84	0.1▼
Bank Nifty ATM IV (%)	17.69	0.2▲
PCR (Nifty)	0.92	0.05▼
PCR (Bank Nifty)	0.86	0.07▼

The Long Ratio for FII Index Futures **jump** at 49.2 %, **up** from 48.5 % in the **last session**..

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BIOCON	2,35,52,500	6.3%	343.1	1.6%
DALBHARAT	34,94,075	3.1%	1961.8	0.6%
EICHERMOT	37,95,925	2.8%	5540.5	1.0%
APOLLOHOSP	24,14,000	2.0%	7040	0.4%
MARUTI	32,94,800	1.5%	12537	0.8%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
INDHOTEL	2,32,44,000	15.9%	753.05	-6.5%
CHAMBLFERT	96,23,500	13.6%	682.5	-0.2%
CDSL	2,09,94,525	11.6%	1228	-5.6%
SBIN	8,55,03,000	8.8%	761.3	-2.2%
CAMS	18,73,525	8.6%	3598.1	-5.5%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
POLYCAB	22,08,500	-11.2%	5923	1.7%
EXIDEIND	2,17,08,000	-6.6%	371.95	1.1%
MAXHEALTH	1,27,35,975	-4.0%	1157.5	1.7%
LT	1,61,77,500	-2.0%	3348.3	0.1%
HINDUNILVR	1,65,72,900	-1.8%	2388.1	1.2%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MGL	34,32,400	-6.6%	1378.7	-2.2%
NBCC	3,20,90,400	-5.8%	92.71	-4.1%
CYIENT	33,02,475	-4.5%	1163.6	-4.0%
ADANI PORTS	2,08,85,525	-4.0%	1323.4	-2.2%
IEX	3,13,20,000	-3.9%	189.9	-2.4%

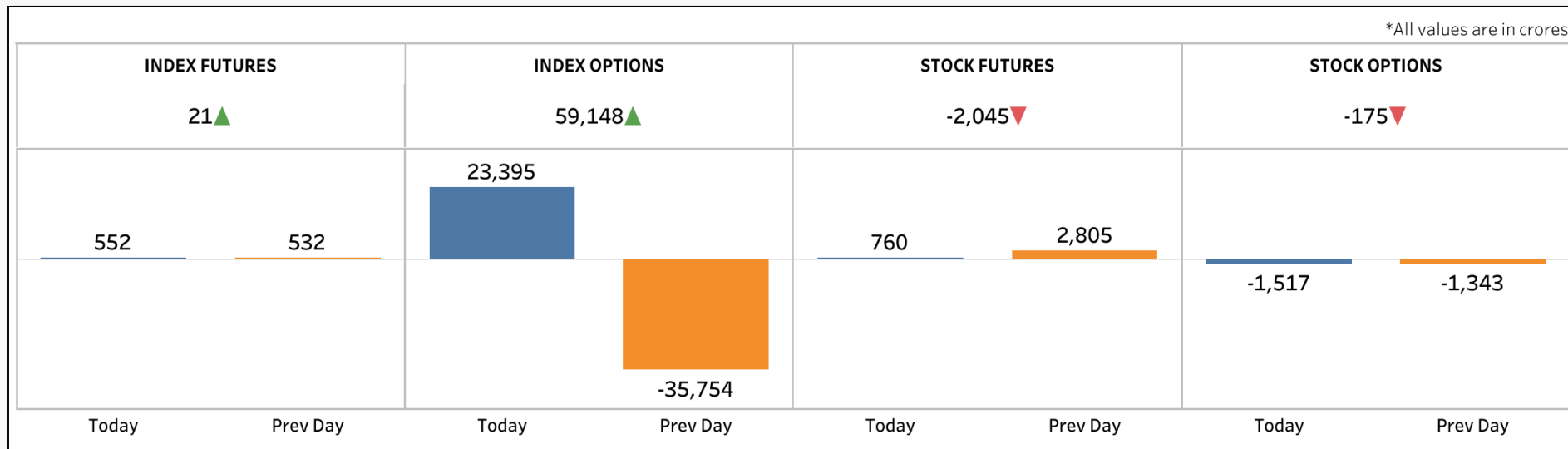
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

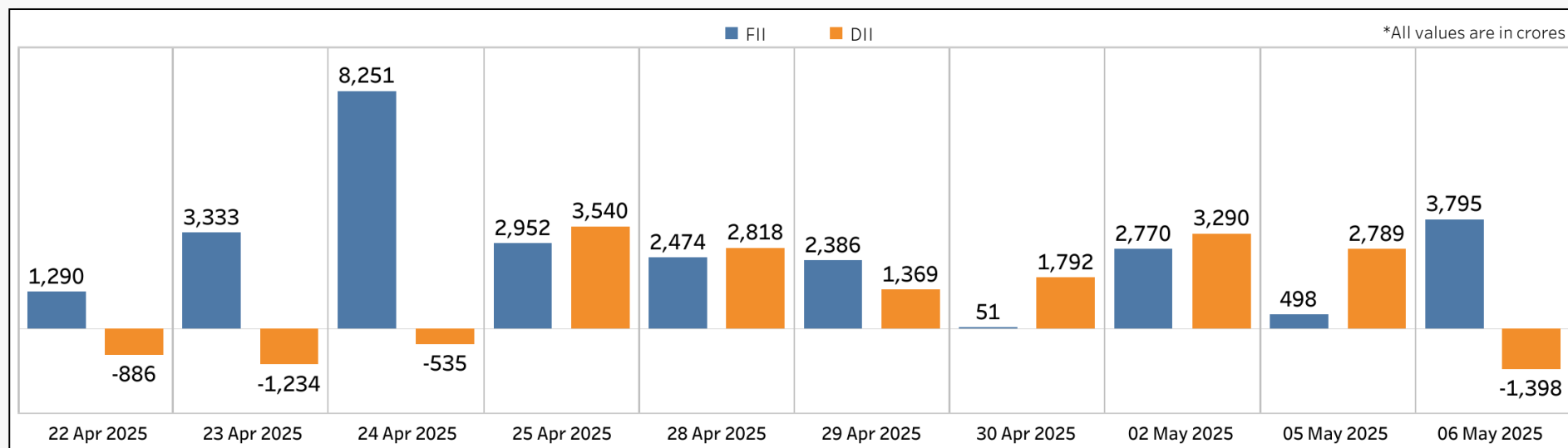
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-76,010 ▼	8,603 ▲	123,358 ▲	-1,819,140 ▼	-230 ▼	-41,965 ▼	-32,404 ▼	3,741,164 ▲
<div> <div>40,525</div> <div>116,535</div> <div>2,222</div> <div>90,159</div> </div>				<div> <div>-160</div> <div>70</div> <div>-1,723</div> <div>40,242</div> <div>13,811</div> <div>46,215</div> <div>35,457</div> <div>-3,705,707</div> </div>			
<div> <div>-6,381</div> <div>-33,199</div> <div>-2,804</div> </div>							
Net O/S		Net O/S		Net O/S		Net O/S	
-273,558		12,175		70		38,474	
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day
-199,735		1,739,860		60,327		-3,638,617	
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
140,109 ▲	26,405 ▲	-204,560 ▼	-1,626,472 ▼	-63,870 ▼	6,957 ▲	113,606 ▲	-295,552 ▼
<div> <div>1,615,745</div> </div>				<div> <div>27,350</div> <div>91,220</div> <div>2,858</div> <div>74,567</div> </div>			
<div> <div>26,023</div> </div>				<div> <div>-4,099</div> <div>-39,039</div> <div>-21,926</div> </div>			
Net O/S		Net O/S		Net O/S		Net O/S	
126,471		-28,979		147,017		-57,910	
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day
197,316		1,631,271		-21,670		267,486	
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day

Daily Net Open Interest Change

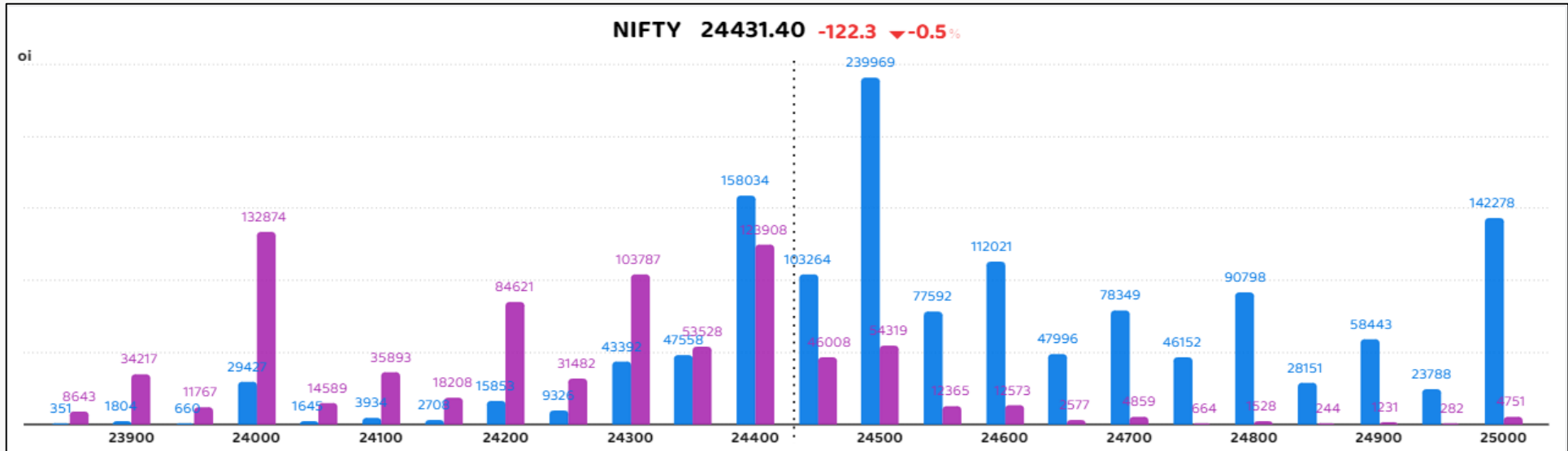


DII and FII Daily Cash Market Flows



Positioning Stack by Strike (Nifty Current Week Expiry & BankNifty Monthly Expiry)

Call  Put 



For the Nifty, the 24,500 Call and the 25,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 55,500 Call and the 55,000 Put saw the most amount of open interest.

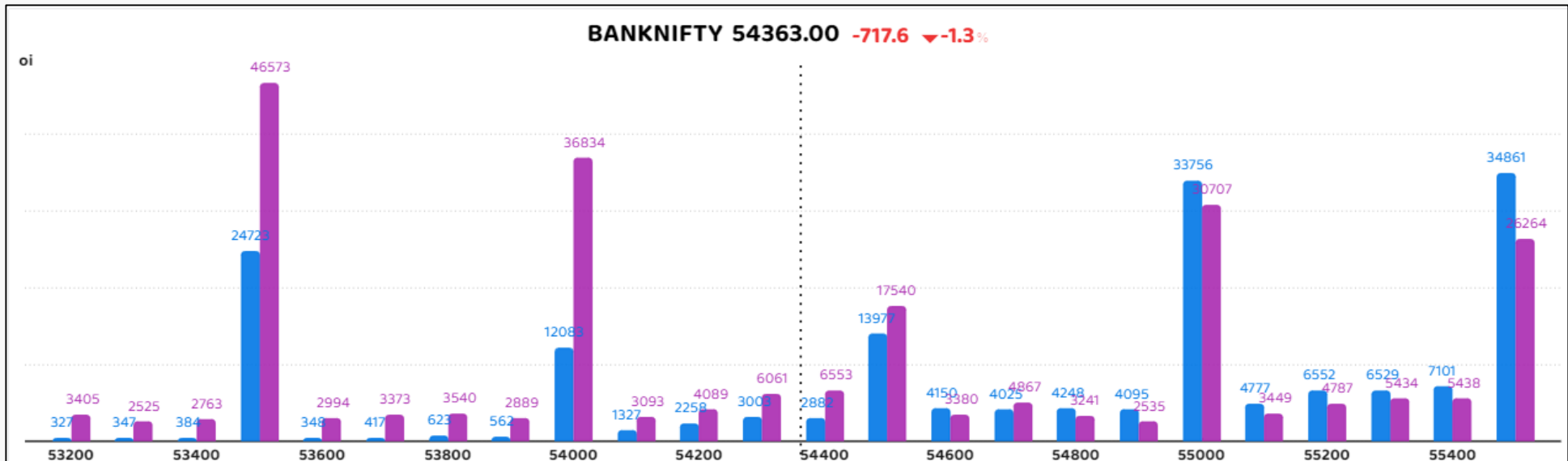
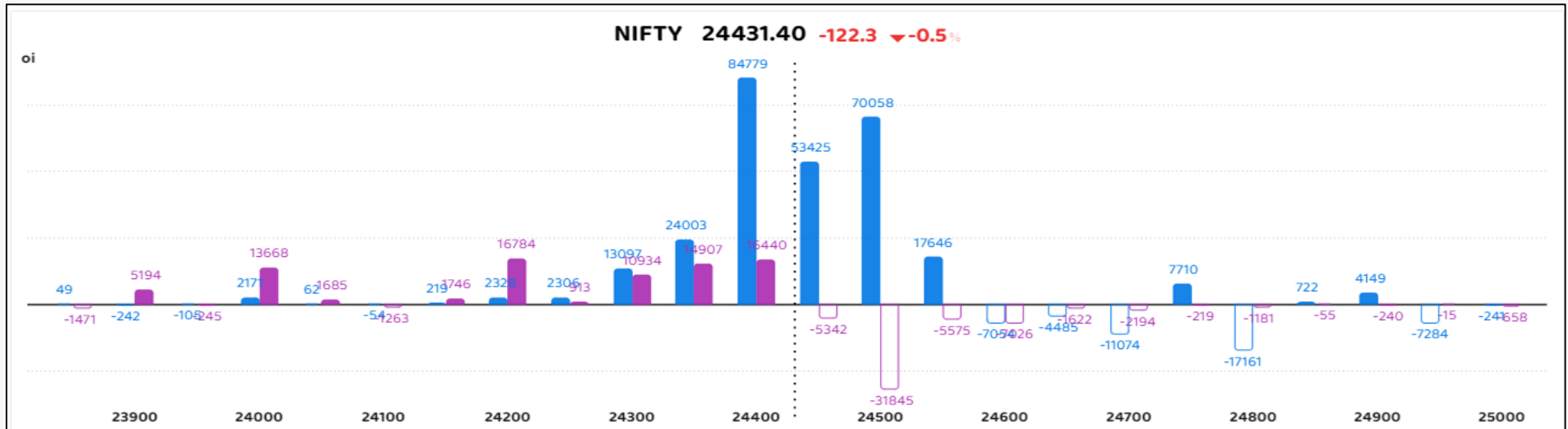


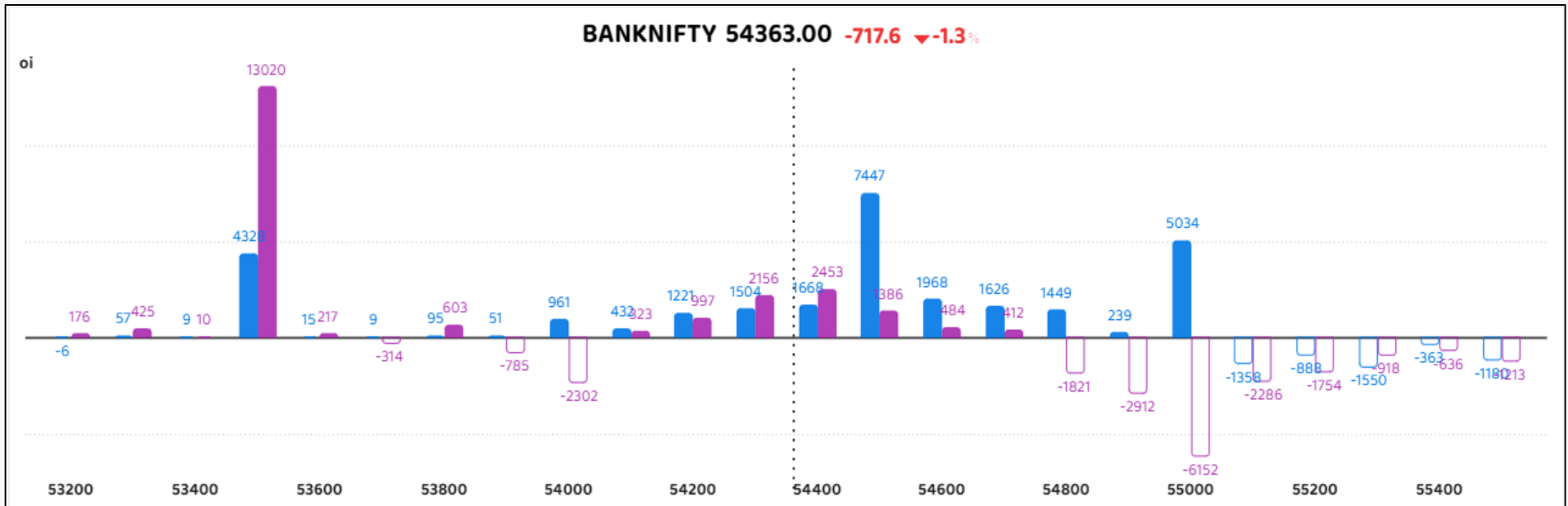
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,500 Call and the 24,400 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)
MRF LTD	134990	-0.8	32.2	35.6	6.7	88.2
DIXON TECHNOLOGI	16056	-3.9	44.6	53.0	1.8	83.7
TITAN CO LTD	3299.3	-0.7	27.7	33.5	2.3	81.4
HERO MOTOCORP LT	3872.6	2.8	33.2	40.4	2.8	81.0
AARTI INDUS LTD	435.3	-3.4	43.4	50.9	15.5	78.6

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ADANI GREEN ENER	923.25	-4.4	45.4	74.3	45.4	0.0
ADANI PORTS AND	1320.8	-2.0	23.3	99.7	23.2	0.1
INDIAN RENEWABLE	160.23	-5.0	44.0	69.2	42.9	3.9
NBCC INDIA LTD	92.58	-3.9	40.1	65.4	38.6	5.6
TATA TECHNOLOGIE	648.6	-2.6	31.8	54.4	29.6	8.8

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MRF LTD	134990	-0.8	32.2	35.6	6.7	99.0
ICICI BANK LTD	1431.6	0.2	33.1	46.1	9.3	98.9
ASIAN PAINTS LTD	2418	-0.8	29.3	34.6	15.5	98.1
DR REDDY'S LABS	1160.4	-0.9	33.8	39.7	14.4	97.9
LUPIN LTD	2049	-1.7	37.5	44.9	21.9	95.8

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ADANI GREEN ENER	923.25	-4.4	45.4	74.3	45.4	0.0
ADANI PORTS AND	1320.8	-2.0	23.3	99.7	23.2	0.8
NBCC INDIA LTD	92.58	-3.9	40.1	65.4	38.6	3.2
MANAPPURAM FINAN	227.78	-1.0	15.7	64.2	2.7	3.2
APOLLO HOSPITALS	7009	0.5	20.7	40.3	12.9	10.1

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
YES BANK LTD	17.93	1.1	32910	7161	4.6
MAX HEALTHCARE I	1156	2.1	20493	4876	4.2
SYNGENE INTERNAT	618.75	-1.7	6368	1824	3.5
FSN E-COMMERCE V	194.46	-0.9	5991	1771	3.4
HERO MOTOCORP LT	3872.6	2.8	64440	19314	3.3

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
PRESTIGE ESTATES	1332	-3.9	2057	3097	1.5
COLGATE PALMOLIV	2621.4	0.0	4228	6220	1.5
KALYAN JEWELLERS	502.25	-5.4	9845	12972	1.3
MAX FINANCIAL SE	1269.2	-1.1	2105	2718	1.3
ICICI BANK LTD	1431.6	0.2	33051	37920	1.1

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
SYNGENE INTERNAT	618.75	-1.7	14872	14872	100.0
MANAPPURAM FINAN	227.78	-1.0	10719	11426	93.8
TATA TECHNOLOGIE	648.6	-2.6	12624	13547	93.2
VARUN BEVERAGES	513.8	-4.5	13959	15074	92.6
CENTRAL DEPOSITO	1260.2	-4.1	29730	33476	88.8

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
CENTRAL DEPOSITO	1260.2	-4.1	18228	18228	100.0
HFCL LTD	76.35	-5.3	4752	4818	98.6
TUBE INVESTMENTS	2911.8	-2.7	2440	2527	96.6
TATA TECHNOLOGIE	648.6	-2.6	6611	6973	94.8
VOLTAS LTD	1229.6	-0.9	17479	18689	93.5

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
BANK OF BARODA	223.91	-10.1	99425	99425	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
BANK OF BARODA	223.91	-10.1	93110	93110	100.0

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
INDIAN HOTELS CO	753.25	-6.1	18390	8027	2.3
SYNGENE INTERNAT	618.75	-1.7	14872	6658	2.2
ACC LTD	1848.9	-1.8	17938	8201	2.2
BANK OF BARODA	223.91	-10.1	22135	11127	2.0
ADANI TOTAL GAS	632.95	-4.9	4552	2462	1.8

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
SYNGENE INTERNAT	618.75	-1.7	5153	3165	1.6
ACC LTD	1848.9	-1.8	8634	5313	1.6
POLYCAB INDIA LT	5906	1.9	8787	5548	1.6
MARUTI SUZUKI IN	12581	1.0	35692	22649	1.6
CENTRAL DEPOSITO	1260.2	-4.1	18228	11724	1.6

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
POLYCAB INDIA LT	5906	1.9	164914	23678	7.0
BANK OF BARODA	223.91	-10.1	99425	21589	4.6
INDIAN HOTELS CO	753.25	-6.1	64004	17193	3.7
CUMMINS INDIA	2790.3	-5.1	30193	9686	3.1
MAHINDRA & MAHIN	3068.4	1.6	186035	63796	2.9

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
POLYCAB INDIA LT	5906	1.9	70615	11489	6.1
BANK OF BARODA	223.91	-10.1	93110	17234	5.4
CUMMINS INDIA	2790.3	-5.1	23579	4545	5.2
INDIAN HOTELS CO	753.25	-6.1	42583	11649	3.7
MAHINDRA & MAHIN	3068.4	1.6	93192	34783	2.7

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	2600	1992300	10.5%	2354	2600	2385600	10.5%	ITC	450	6136000	3.3%	436	430	3449600	-1.3%
ADANIPTS	1400	1446800	6.0%	1321	1200	1084400	-9.1%	JIOFIN	280	5915250	11.5%	251	260	3872550	3.5%
APOLLOHOSP	7200	107500	2.7%	7009	6150	92125	-12.3%	JSWSTEEL	1100	953775	13.7%	968	900	1237275	-7.0%
ASIANPAINT	2500	633200	3.4%	2418	2400	334400	-0.7%	KOTAKBANK	2300	1628000	10.9%	2074	2000	660800	-3.6%
AXISBANK	1200	2485000	3.3%	1161	1100	1376250	-5.3%	LT	3500	599700	5.0%	3334	3300	425550	-1.0%
BAJAJ-AUTO	8500	144975	7.0%	7946	8000	91275	0.7%	M&M	3300	847875	7.5%	3068	2900	457975	-5.5%
BAJAJFINSV	2100	2097000	3.2%	2036	1800	531500	-11.6%	MARUTI	12000	329850	-4.6%	12581	12000	229550	-4.6%
BAJFINANCE	10000	884625	13.7%	8798	8000	405000	-9.1%	NESTLEIND	2500	522000	6.1%	2357	2400	134600	1.8%
BEL	320	7997100	3.1%	311	290	3853200	-6.6%	NTPC	370	8184000	8.3%	342	380	2089500	11.2%
BHARTIARTL	1900	1773650	-0.1%	1901	1800	1053550	-5.3%	ONGC	240	7182175	1.3%	237	240	1959650	1.3%
CIPLA	1760	745225	16.4%	1511	1300	452075	-14.0%	POWERGRID	330	2995200	7.3%	308	320	1609200	4.0%
COALINDIA	400	5490450	5.8%	378	450	2152500	19.0%	RELIANCE	1400	6414000	-1.5%	1421	1300	7778000	-8.5%
DRREDDY	1200	1169375	3.4%	1160	1100	566250	-5.2%	SBILIFE	1780	891000	3.1%	1726	1700	410250	-1.5%
EICHERMOT	5700	189875	3.4%	5515	5300	154875	-3.9%	SBIN	800	11497500	3.3%	774	800	4585500	3.3%
ETERNAL	260	9230000	11.8%	233	230	4920000	-1.1%	SHRIRAMFIN	700	3081000	12.3%	623	600	816750	-3.8%
GRASIM	3120	321000	14.3%	2729	2340	120500	-14.2%	SUNPHARMA	1900	2571800	4.4%	1819	1800	602350	-1.0%
HCLTECH	1600	904750	1.3%	1579	1200	917700	-24.0%	TATACONSUM	1300	825816	12.5%	1155	1100	418152	-4.8%
HDFCBANK	2000	3322550	3.5%	1932	1800	2721950	-6.8%	TATAMOTORS	700	4021050	8.0%	648	650	3281850	0.3%
HDFCLIFE	760	2002000	5.2%	723	720	982300	-0.4%	TATASTEEL	150	15125000	3.8%	144	140	13337500	-3.1%
HEROMOTOCO	4000	350400	3.3%	3873	3900	210600	0.7%	TCS	3500	882875	1.2%	3460	3400	551600	-1.7%
HINDALCO	700	1811600	11.1%	630	600	1076600	-4.8%	TECHM	1680	521400	12.3%	1496	1400	419400	-6.4%
HINDUNILVR	2500	1218000	5.0%	2382	2100	477300	-11.8%	TITAN	3400	378000	3.1%	3299	3000	268100	-9.1%
ICICIBANK	1500	2840600	4.8%	1432	1400	2688000	-2.2%	TRENT	5700	448400	9.1%	5224	5200	389300	-0.5%
INDUSINDBK	900	1951000	8.2%	832	800	1632000	-3.8%	ULTRACEMCO	13000	300400	11.2%	11693	10000	89700	-14.5%
INFY	1600	1790000	5.9%	1512	1200	1606400	-20.6%	WIPRO	250	10443000	3.7%	241	240	3303000	-0.5%

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

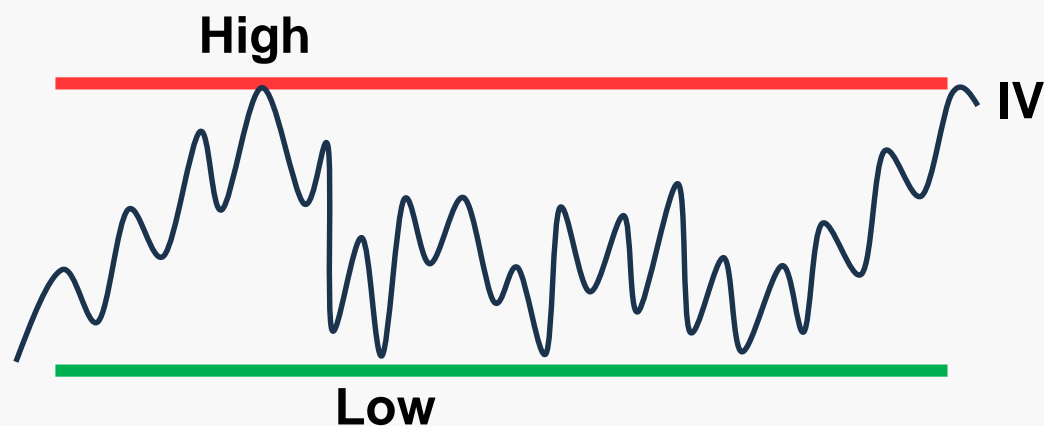
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

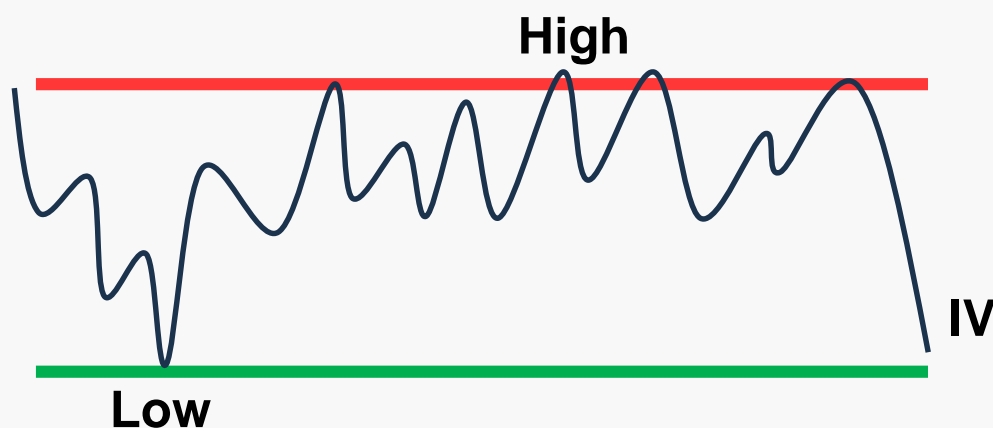
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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 (DII), 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

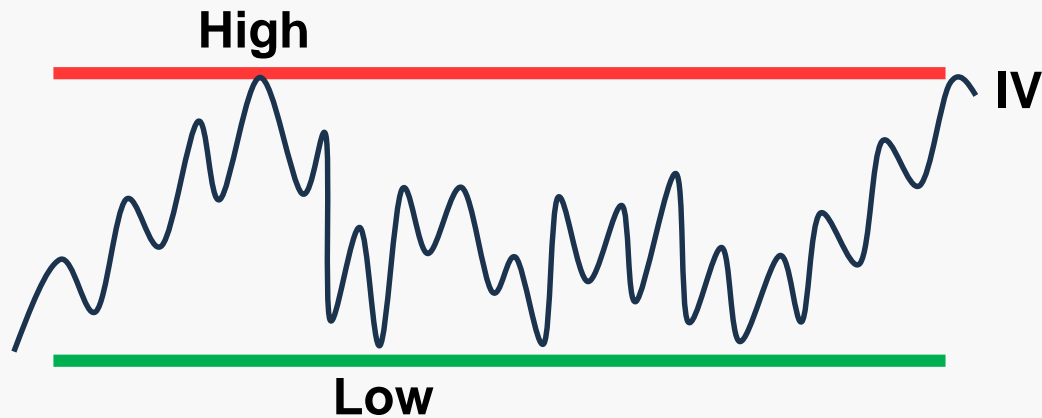


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

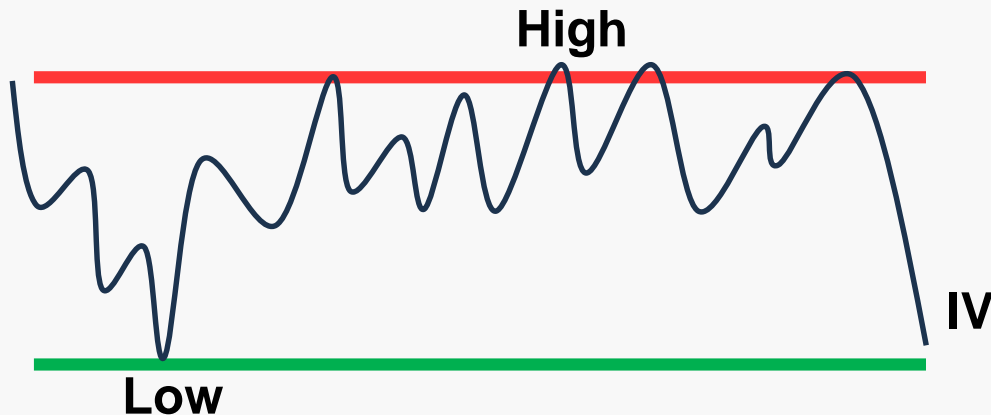


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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