



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	22,996	0.5% ▼
Open Interest (OI)	1,93,62,750	2.0% ▲
Change in OI (abs)	1,93,62,750	3,85,950 ▲
Premium / Discount (Abs)	66	10 ▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	49,335	0.5% ▼
Open interest (OI)	40,74,870	5.9% ▲
Change in OI (abs)	40,74,870	2,28,360 ▲
Premium / Discount (Abs)	235	24 ▲
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	15.02	0.1 ▲
Nifty ATM IV (%)	13.97	0.4 ▼
Bank Nifty ATM IV (%)	16.99	0.0 ▲
PCR (Nifty)	0.77	0.03 ▼
PCR (Bank Nifty)	0.68	0.07 ▼

The Long Ratio for the FII Index Futures fell to 15.7%, against 15.9% recorded in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ICICIBANK	11,55,53,200	4.9%	1264.4	0.9%
INFY	4,45,07,600	1.7%	1859.1	0.5%
BHARTIARTL	4,13,72,025	1.7%	1717.1	0.1%
HINDUNILVR	1,34,73,900	1.3%	2325.5	0.1%
HCLTECH	1,95,81,450	1.2%	1,712.35	0.2%

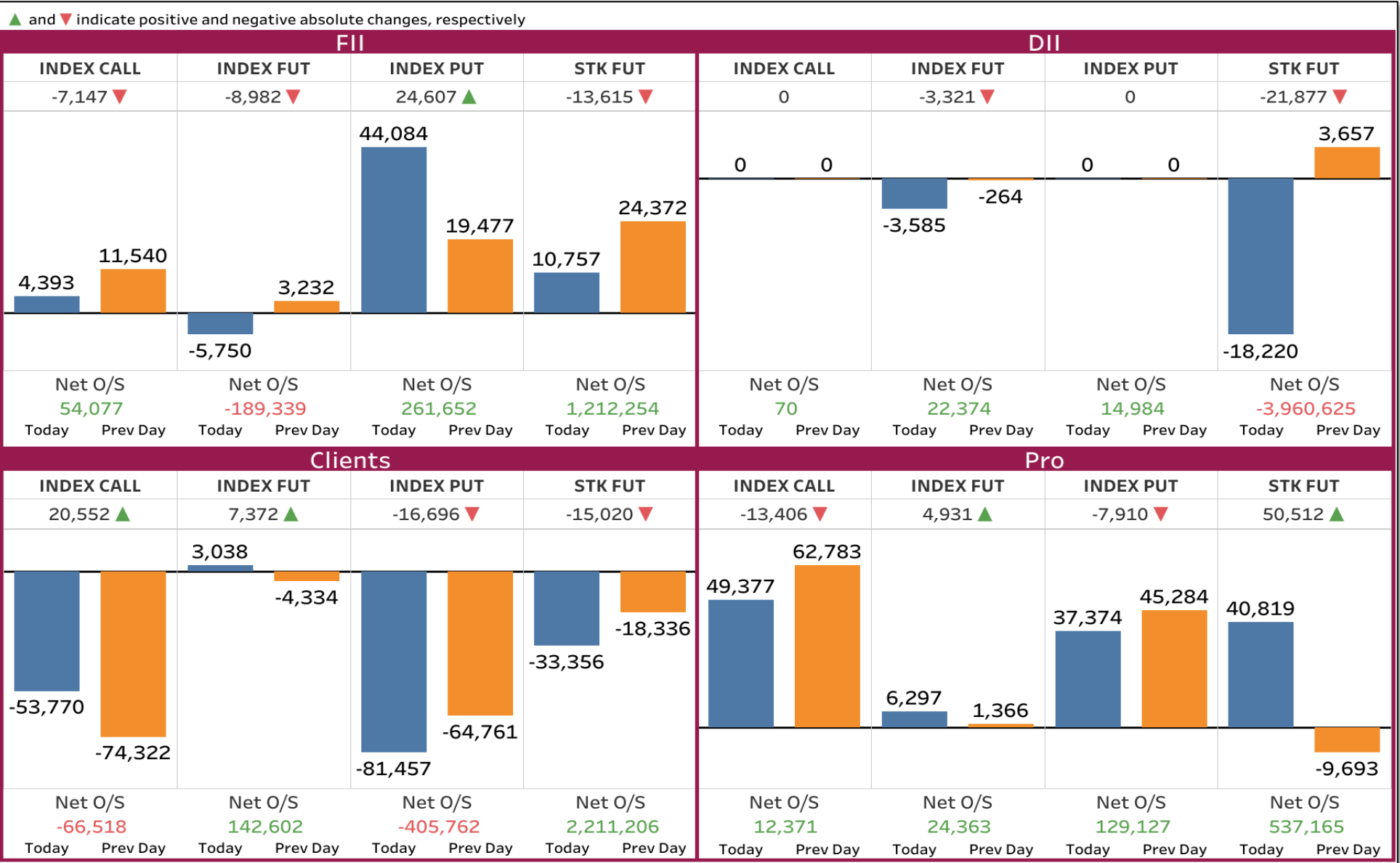
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DEEPAKNTR	35,96,400	121.2%	1905.45	-16.4%
GLENMARK	47,70,675	13.7%	1325.6	-6.5%
PHOENIXLTD	8,87,950	13.5%	1569.75	-2.0%
BSE	30,56,750	9.2%	5090.9	-3.0%
KALYANKJIL	2,02,73,225	7.6%	479.15	-7.1%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
JUBLFOOD	1,47,83,750	-6.0%	669.25	0.8%
HINDALCO	5,16,20,800	-1.6%	606.25	0.2%
BHARATFORG	1,42,56,000	-1.5%	1076.95	0.2%
KEI	8,27,400	-1.3%	3418.6	0.3%
ITC	9,50,11,200	-1.0%	411.1	0.2%

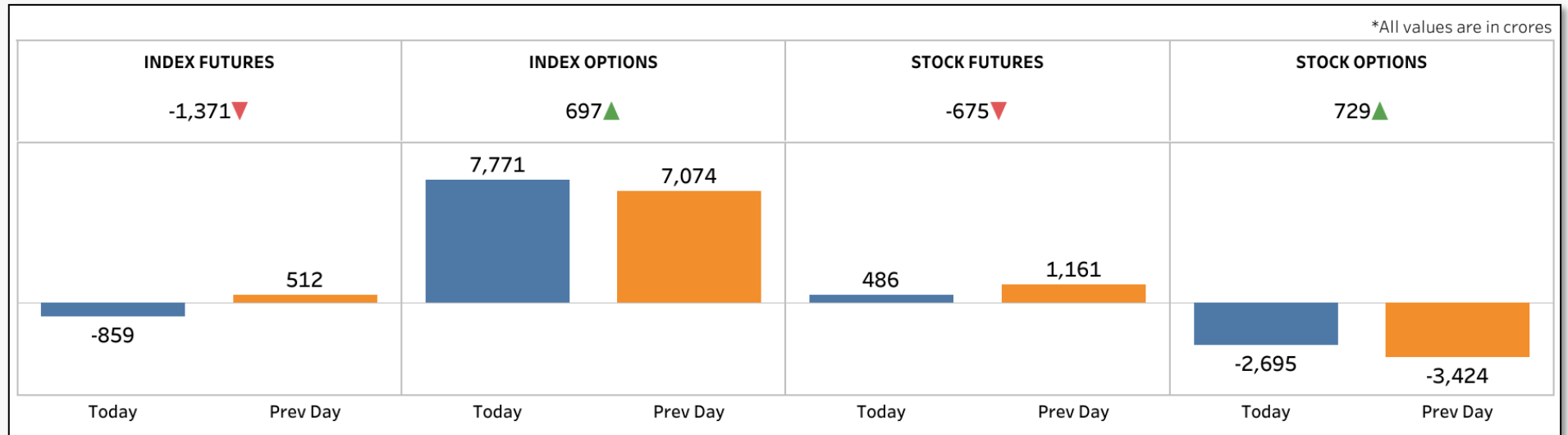
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NAVINFLUOR	7,84,875	-9.8%	4022.2	-2.2%
MANAPPURAM	6,36,78,000	-8.7%	177.55	-8.7%
METROPOLIS	7,03,200	-7.2%	1659.3	-2.8%
MUTHOOTFIN	33,59,125	-7.1%	2254.75	-3.1%
CANFINHOME	45,67,875	-6.4%	607.55	-0.9%

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

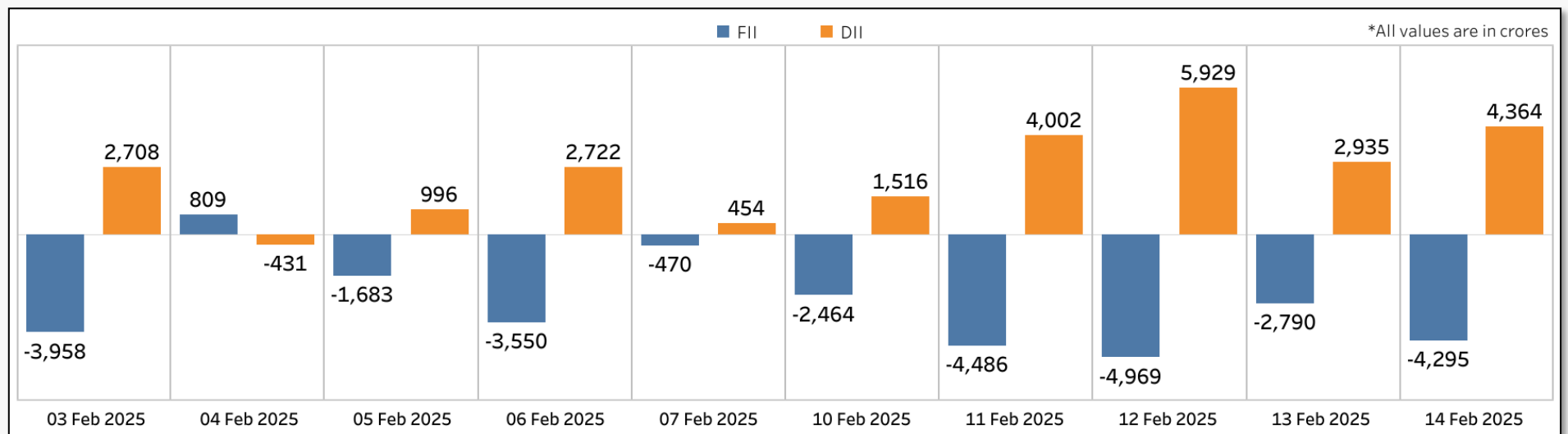
Open Interest Data by Participant



Daily Net Open Interest Change

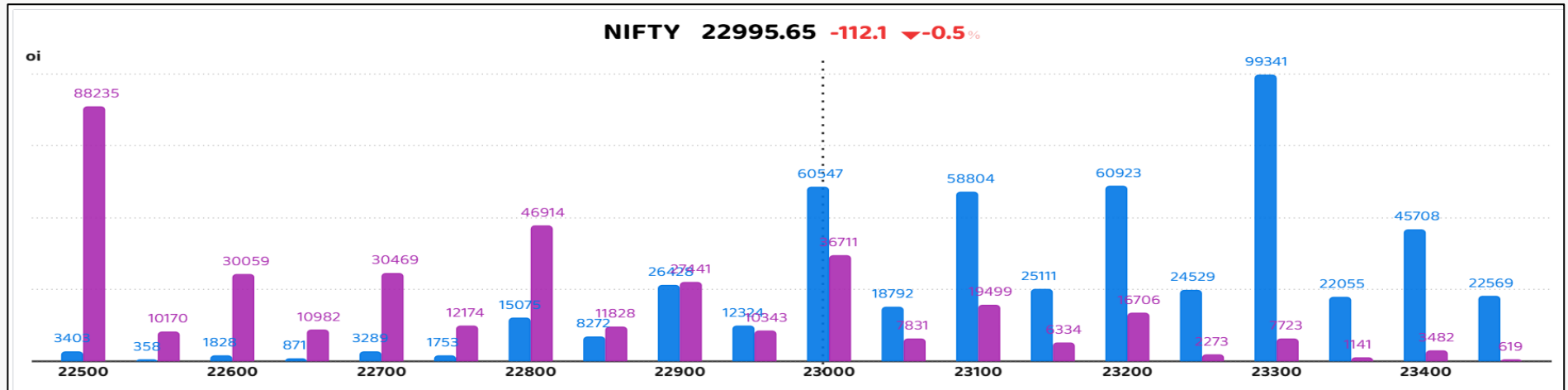


DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 23,300 call and the 22,500 put had the highest call and put concentration (contracts). For the Bank Nifty, the 50,000 call and the 49,000 put saw the most amount of open interest.

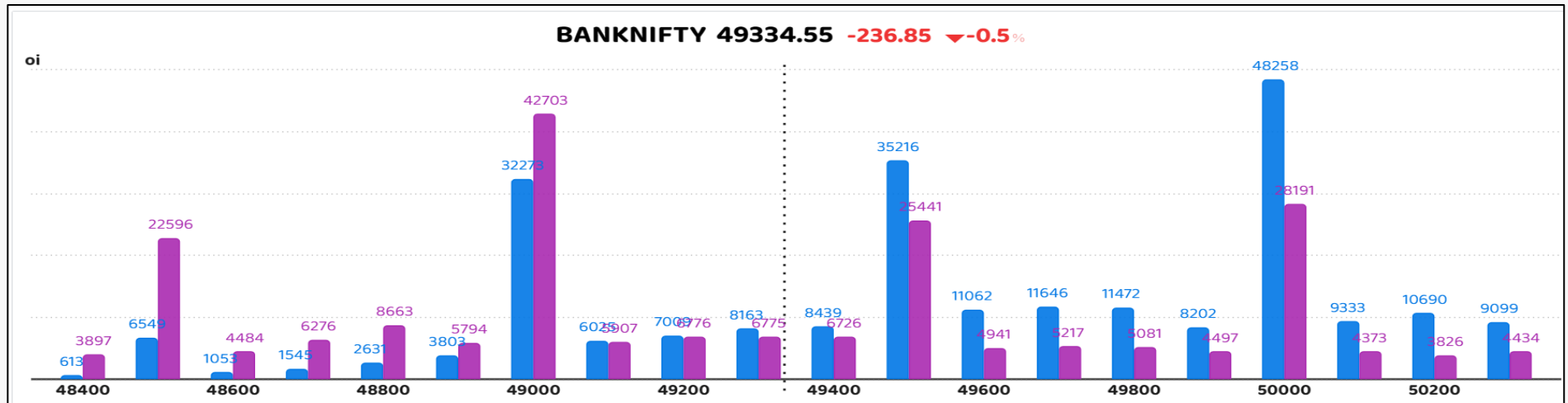
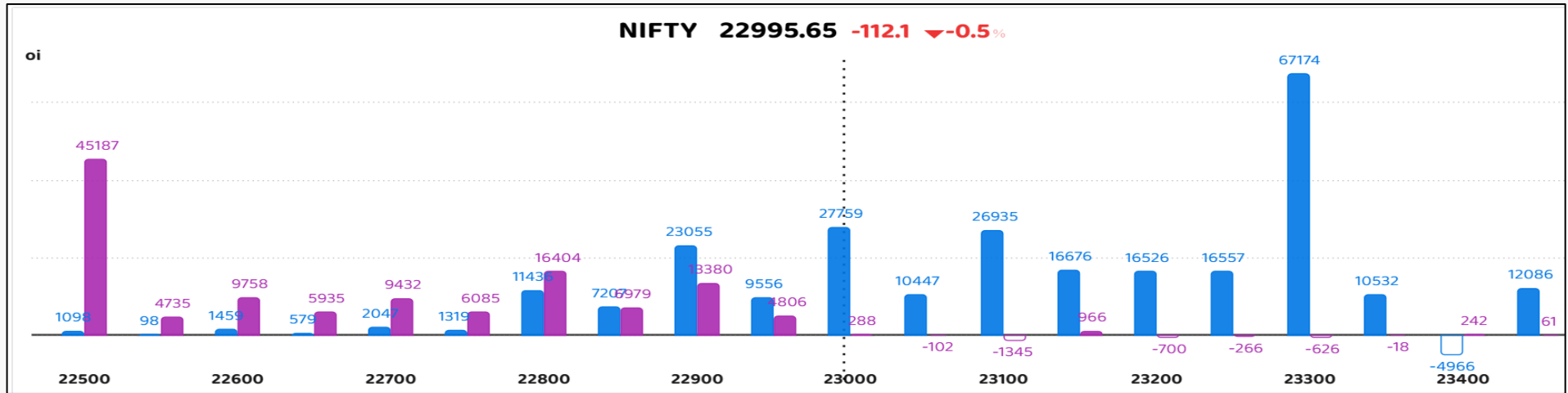


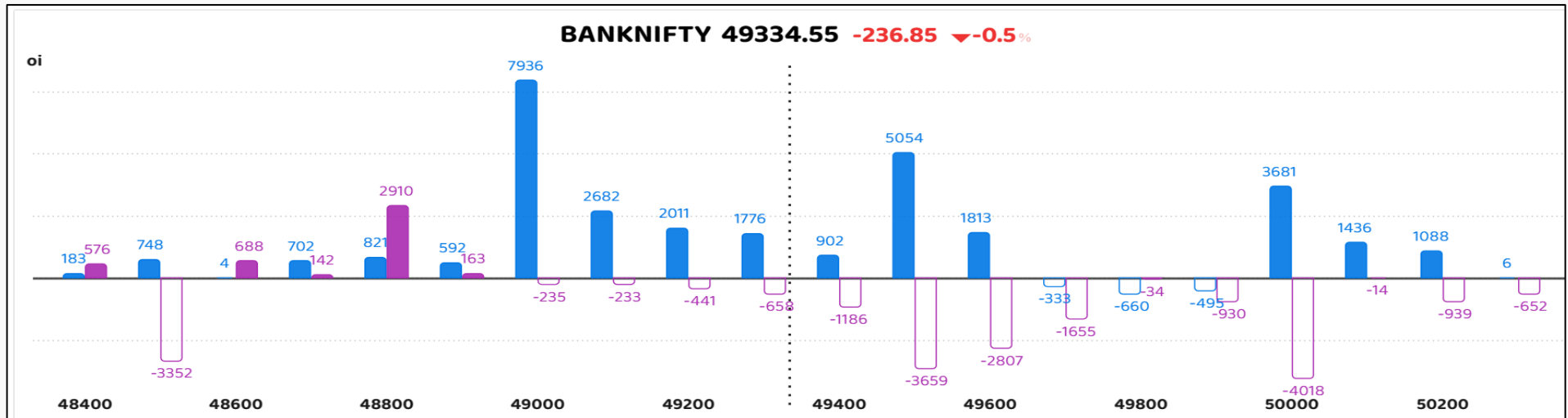
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from the prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23,300 call strike and 22,500 put strike.



For the Bank Nifty, the biggest open interest changes were seen at the 49,000, Call Strike & 50,000 Put strike.

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INDRAPRASTHA GAS	185.67	-2.8	59.1	59.1	20.3	100.0
LAURUS LABS LTD	546.2	-9.1	43.7	44.3	16.1	97.9
DIXON TECHNOLOGI	14010.7	-4.8	50.4	51.5	1.8	97.7
GUJARAT NARM VLY	551.8	-3.5	48.5	53.0	4.8	90.7
DEEPAK NITRITE	1900.5	-15.1	40.8	45.0	21.4	82.3

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ADITYA BIRLA FAS	247.6	-4.4	9.9	66.6	9.9	0.0
BRITANNIA INDS	4939.65	1.0	15.9	32.5	15.1	4.5
HDFC LIFE INSURA	626.2	-0.5	24.0	80.6	19.6	7.2
TECH MAHINDRA LT	1659.1	-1.0	22.7	35.8	21.2	9.7
MRF LTD	109474.9	-0.3	12.0	36.7	8.9	11.3

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INDRAPRASTHA GAS	185.67	-2.8	59.1	59.1	20.3	100.0
LAURUS LABS LTD	546.2	-9.1	43.7	44.3	16.1	99.9
DIXON TECHNOLOGI	14010.7	-4.8	50.4	51.5	1.8	99.1
GUJARAT NARM VLY	551.8	-3.5	48.5	53.0	4.8	98.8
SRF LTD	2752.25	-3.1	35.5	40.8	21.4	96.2

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ADITYA BIRLA FAS	247.6	-4.4	9.9	66.6	9.9	0.0
RAMCO CEMENT/THE	844.65	-2.0	14.8	43.6	0.5	0.8
BERGER PAINTS	478.3	-1.4	17.5	50.6	12.0	1.1
BRITANNIA INDS	4939.65	1.0	15.9	32.5	15.1	1.2
MRF LTD	109474.9	-0.3	12.0	36.7	8.9	2.3

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PAGE INDUSTRIES	41068.35	-1.5	15498	2649	5.9
CAN FIN HOMES	607.3	-0.7	2461	592	4.2
BOSCH LTD	27004.55	-1.3	2475	695	3.6
ITC LTD	410.25	0.1	76785	26596	2.9
MARICO LTD	633.75	-0.1	7127	2534	2.8

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
METROPOLIS HEALT	1681.65	-1.5	1842	5225	2.8
INDIAMART INTERM	2124.6	-3.4	3640	10206	2.8
TORRENT PHARMA	3013.85	-2.0	3002	5337	1.8
ABBOTT INDIA LTD	27839.75	-1.8	1832	3088	1.7
GRASIM INDS LTD	2431.3	-2.4	14468	21364	1.5

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
LARSEN & TOUBRO	3237.65	-0.8	85677	85677	100.0
HINDUSTAN AERONA	3513.7	-4.0	74198	74198	100.0
ALKEM LABORATORI	4651.5	-1.4	10348	10348	100.0
VOLTAS LTD	1213.85	-2.8	34182	34182	100.0
PAGE INDUSTRIES	41068.35	-1.5	20280	20280	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
LARSEN & TOUBRO	3237.65	-0.8	40746	40746	100.0
DEEPAK NITRITE	1900.5	-15.1	12004	12004	100.0
LAURUS LABS LTD	546.2	-9.1	8491	8491	100.0
UNITED BREWERIES	2040.6	0.5	3237	3326	97.3
BHARTI AIRTEL	1717.05	0.1	30173	32100	94.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
DEEPAK NITRATE	1900.50	-15.1	150905	150905	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
DEEPAK NITRITE	1900.5	-15.1	151639	151639	100.0
UNITED BREWERIES	2040.6	0.5	24171	24171	100.0
IPCA LABS LTD	1463.9	-1.8	14351	14351	100.0
GLENMARK PHARMA	1323.05	-6.2	32102	39467	81.3

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
DEEPAK NITRITE	1900.5	-15.1	150905	13956	10.8
UNITED BREWERIES	2040.6	0.5	33239	7205	4.6
IPCA LABS LTD	1463.9	-1.8	15208	3897	3.9
GLENMARK PHARMA	1323.05	-6.2	30522	8433	3.6
HINDALCO INDS	606.2	0.6	68101	20214	3.4

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
DEEPAK NITRITE	1900.5	-15.1	151639	10633	14.3
UNITED BREWERIES	2040.6	0.5	24171	4412	5.5
GLENMARK PHARMA	1323.05	-6.2	32102	7144	4.5
MUTHOOT FINANCE	2254.9	-2.7	34623	7840	4.4
IPCA LABS LTD	1463.9	-1.8	14351	3299	4.4

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
DEEPAK NITRITE	1900.5	-15.1	25297	5598	4.5
ALKEM LABORATORI	4651.5	-1.4	10348	4484	2.3
PAGE INDUSTRIES	41068.35	-1.5	20280	8878	2.3
PI INDUSTRIES	3162.8	-2.0	13235	6083	2.2
EICHER MOTORS	4703.35	-2.4	27580	13300	2.1

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
DEEPAK NITRITE	1900.5	-15.1	12004	3193	3.8
ALKEM LABORATORI	4651.5	-1.4	5174	2715	1.9
UNITED BREWERIES	2040.6	0.5	3237	1699	1.9
GLENMARK PHARMA	1323.05	-6.2	6522	3460	1.9
BHARTI AIRTEL	1717.05	0.1	30173	16401	1.8

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	2400	1478700	11.5%	2153	2800	2608500	30.1%	INFY	1900	3495200	2.3%	1856	1700	1152000	-8.4%
ADANIPTS	1200	2076800	12.9%	1063	1000	769600	-5.9%	ITC	450	12888000	9.7%	410	400	3888000	-2.5%
APOLLOHOSP	7000	405375	11.6%	6270	6200	128625	-1.1%	JSWSTEEL	1080	909900	12.0%	965	900	517725	-6.7%
ASIANPAINT	2400	1365000	7.6%	2231	2100	424400	-5.9%	KOTAKBANK	2000	2382400	2.4%	1952	1800	808400	-7.8%
AXISBANK	1050	7613125	5.3%	998	1000	1941250	0.3%	LT	3600	1830150	11.2%	3238	3250	668850	0.4%
BAJAJ-AUTO	9000	206025	5.8%	8506	8500	77625	-0.1%	LTIM	6000	121500	8.9%	5512	5500	61950	-0.2%
BAJAJFINSV	1860	1930500	1.0%	1841	1800	608500	-2.2%	M&M	3200	1154125	8.7%	2943	2900	544950	-1.4%
BAJFINANCE	8500	606125	1.3%	8392	7500	438875	-10.6%	MARUTI	13200	550850	4.1%	12680	12000	280550	-5.4%
BHARTIARTL	1720	4911025	0.2%	1717	1700	2171700	-1.0%	NESTLEIND	2400	755000	9.3%	2196	2000	259800	-8.9%
BPCL	270	10405800	7.6%	251	250	1531800	-0.4%	NTPC	340	10549500	13.2%	300	390	3769500	29.8%
BRITANNIA	5000	416000	1.2%	4940	4700	128700	-4.8%	ONGC	270	12189100	17.1%	231	230	2750825	-0.2%
CIPLA	1500	1661725	2.8%	1459	1400	328250	-4.1%	POWERGRID	300	8679600	16.6%	257	240	2260800	-6.7%
COALINDIA	400	5346600	12.9%	354	450	3072300	27.0%	RELIANCE	1300	12596000	6.8%	1217	1200	4342000	-1.4%
DIVISLAB	6200	197200	6.1%	5844	5400	129300	-7.6%	SBILIFE	1460	763500	-0.4%	1465	1460	288375	-0.4%
DRREDDY	1240	1373125	3.6%	1197	1200	474375	0.2%	SBIN	800	21844500	10.8%	722	700	5000250	-3.1%
EICHERMOT	5500	535325	16.9%	4703	4700	172200	-0.1%	SHRIRAMFIN	600	1179000	11.3%	539	500	643500	-7.3%
GRASIM	2600	300500	6.9%	2431	2500	190750	2.8%	SUNPHARMA	1800	1728300	5.8%	1701	1700	803250	0.0%
HCLTECH	1760	1258250	2.8%	1711	1540	722400	-10.0%	TATACONSUM	1100	607848	7.6%	1023	900	621072	-12.0%
HDFCBANK	1760	9692100	3.8%	1695	1700	2191200	0.3%	TATAMOTORS	800	9964350	17.5%	681	700	3314850	2.9%
HDFCLIFE	640	2770900	2.2%	626	540	806300	-13.8%	TATASTEEL	150	33792000	11.6%	134	130	12001000	-3.3%
HEROMOTOCO	4200	699150	8.7%	3862	3900	292200	1.0%	TCS	4200	1141525	6.7%	3935	4000	474950	1.7%
HINDALCO	620	3626000	2.3%	606	600	2238600	-1.0%	TECHM	1700	888000	2.5%	1659	1500	446400	-9.6%
HINDUNILVR	2500	1854300	7.8%	2318	2200	492600	-5.1%	TITAN	3600	1264200	12.0%	3213	3200	590800	-0.4%
ICICIBANK	1300	6238400	3.2%	1260	1250	2542400	-0.8%	ULTRACEMCO	12000	312400	6.5%	11264	11000	88650	-2.3%
INDUSINDBK	1100	4863500	7.4%	1024	1100	1132500	7.4%	WIPRO	320	3867000	3.9%	308	300	3771000	-2.6%

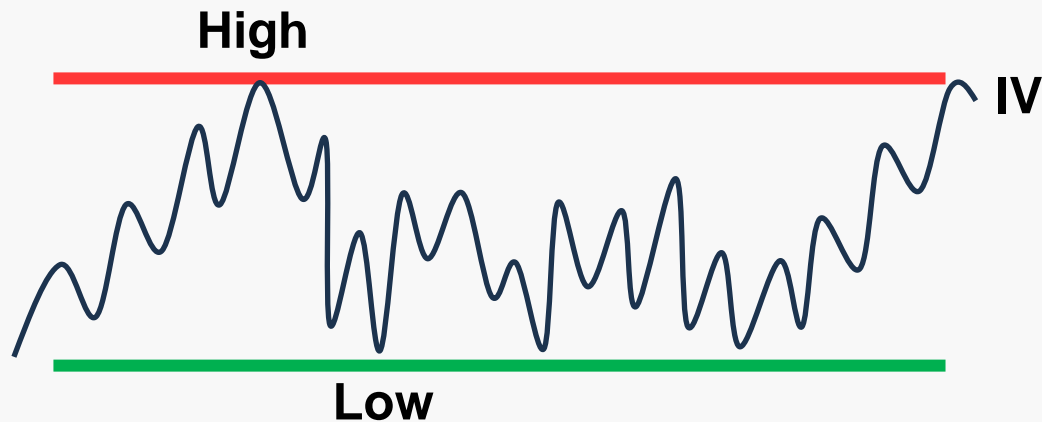
If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green
 If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike 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**

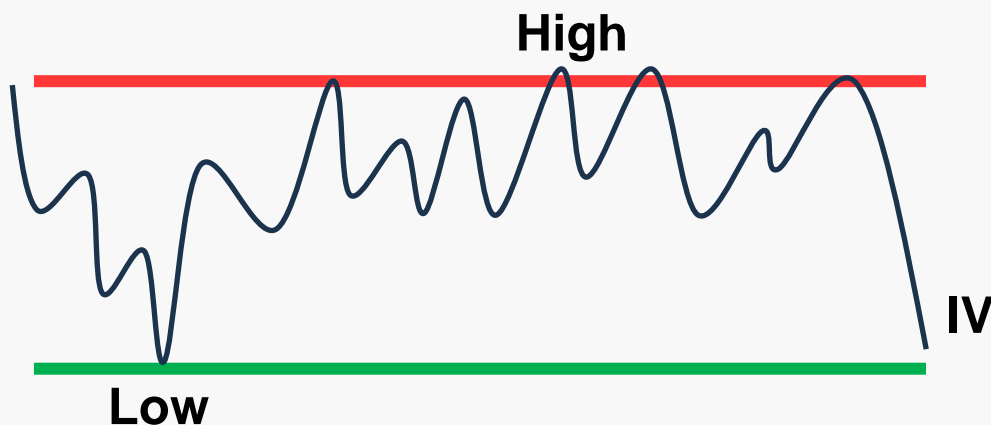
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

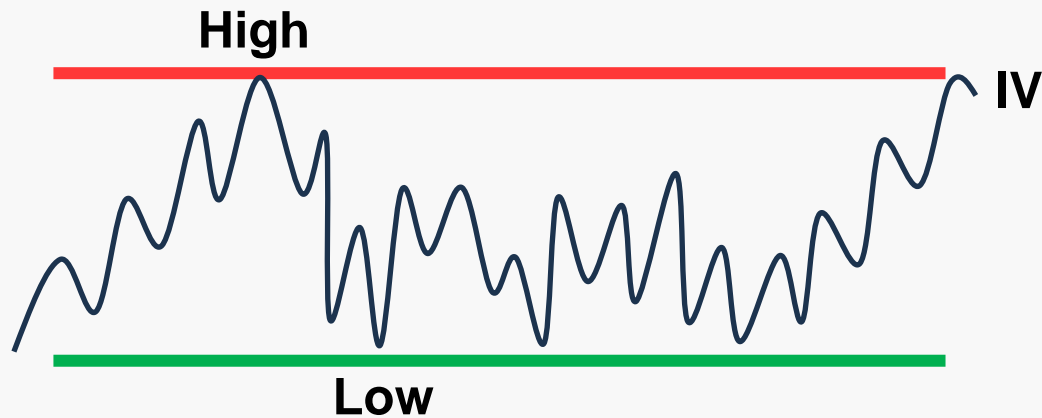


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

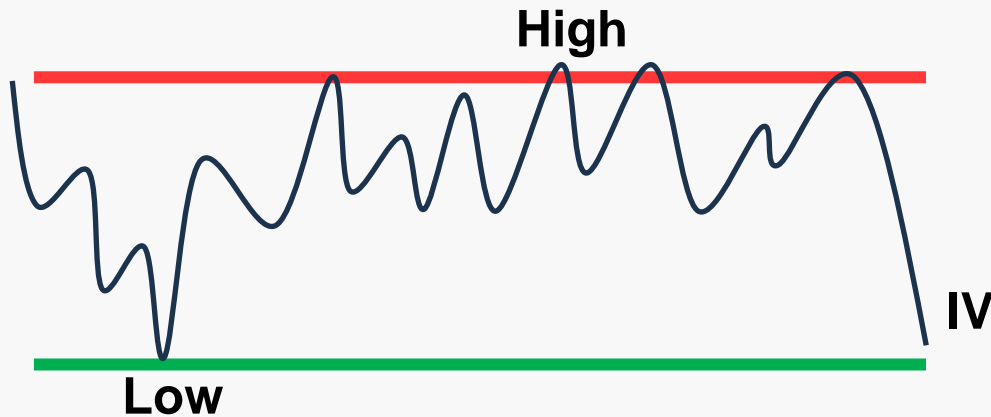


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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