



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	23,400	0.6%▲
Open Interest (OI)	1,82,50,125	1.5%▲
Change in OI (abs)	1,82,50,125	2,60,075▲
Premium / Discount (Abs)	55	9▼
<b>Inference</b>	<b>Long Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	49,513	1.7%▲
Open interest (OI)	33,92,400	0.3%▼
Change in OI (abs)	33,92,400	11,025▼
Premium / Discount (Abs)	162	17▲
<b>Inference</b>	<b>Short Covering</b>	

## Volatility Insights

	Value	Change
India VIX Index	16.41	0.7▲
Nifty ATM IV (%)	16.26	2.3▲
Bank Nifty ATM IV (%)	18.92	1.1▲
PCR (Nifty)	1.03	0.12▲
PCR (Bank Nifty)	0.65	0.10▲

\*The Long Ratio for the FII Index Futures closed **Higher** at 17.1%, against 15.8% recorded in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CGPOWER	73,08,000	8.3%	683.2	5.3%
HINDPETRO	4,39,80,975	6.9%	361.8	0.5%
KPITTECH	22,34,000	6.5%	1337	1.6%
KOTAKBANK	4,23,81,200	6.4%	1924.15	9.2%
LAURUSLABS	2,45,31,000	5.3%	586.1	2.9%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
INDIAMART	13,01,100	14.7%	2260.25	-1.3%
IRFC	8,32,74,600	7.9%	140.7	-1.0%
INDHOTEL	2,03,00,000	7.8%	795.4	-2.6%
CYIENT	15,17,400	5.4%	1725.65	-0.7%
IRB	10,15,98,000	4.4%	55.03	-0.1%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CANFINHOME	71,44,800	-13.0%	708.25	2.4%
HAVELLS	78,68,000	-6.9%	1599.3	1.8%
HDFCAMC	29,75,100	-4.8%	4053.1	0.5%
NAVINFUOR	16,27,150	-4.7%	3782.15	0.5%
AARTIIND	1,74,26,000	-4.5%	449.65	1.5%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MUTHOOTFIN	29,37,000	-2.4%	2146.55	-0.5%
COROMANDEL	35,67,550	-2.4%	1858.65	-1.1%
IGL	2,38,50,750	-2.3%	401.45	-0.9%
MCX	18,06,600	-2.2%	6025.95	-0.4%
BSE	26,85,750	-1.8%	5972.3	-0.8%

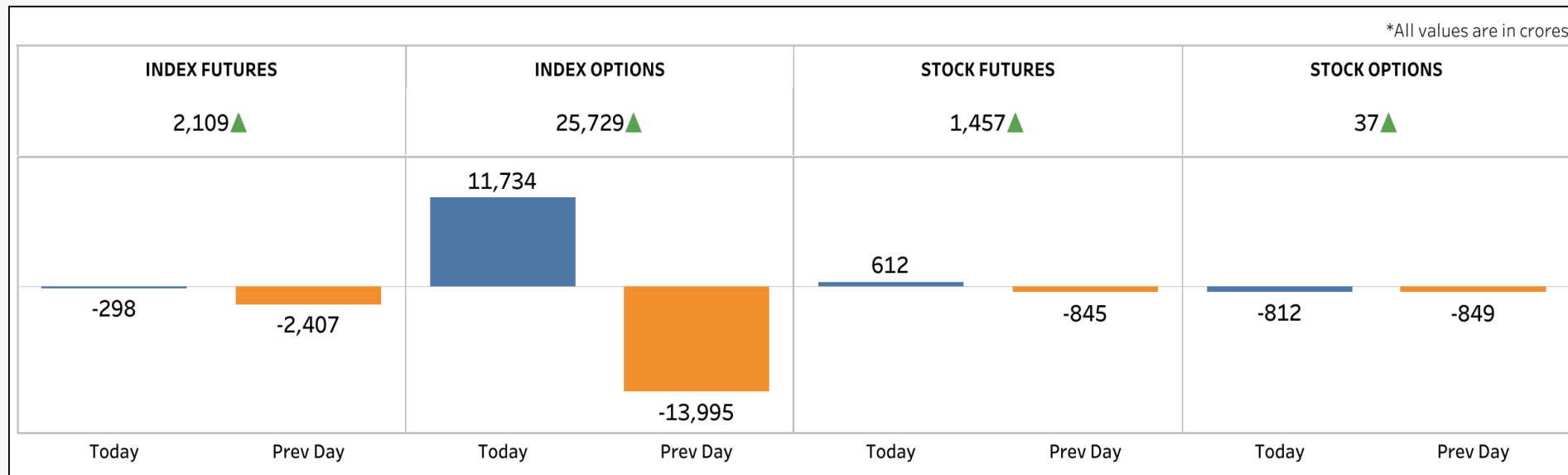
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Data by Participant

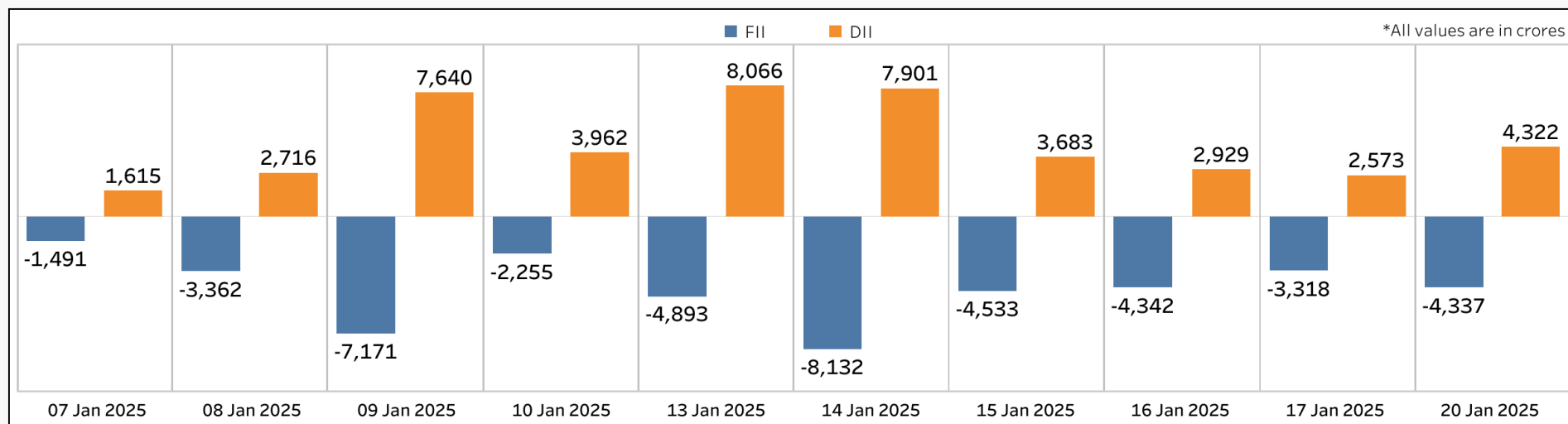
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
114,464 ▲	23,041 ▲	88,549 ▲	8,445 ▲	0	-10,030 ▼	4,000 ▲	63,007 ▲
53,263		12,289	421				83,610
-61,201	-6,301	-76,260	-8,024	0	760	-1,000	20,603
	-29,342			0	10,790	-5,000	
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
100,479	-310,420	380,032	1,192,044	70	24,523	159,275	-3,745,686
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
-278,547 ▼	-5,562 ▼	91,438 ▲	11,482 ▲	164,083 ▲	-7,449 ▼	-183,988 ▼	-82,934 ▼
93,633		115,207		131,651			
2,863	8,425	23,769	9,600		2,678	57,492	
-184,914			-1,882	-32,432	10,127	-126,496	-93,631
							-10,697
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
83,902	313,550	-421,267	2,242,936	-184,451	-27,653	-118,041	310,706
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

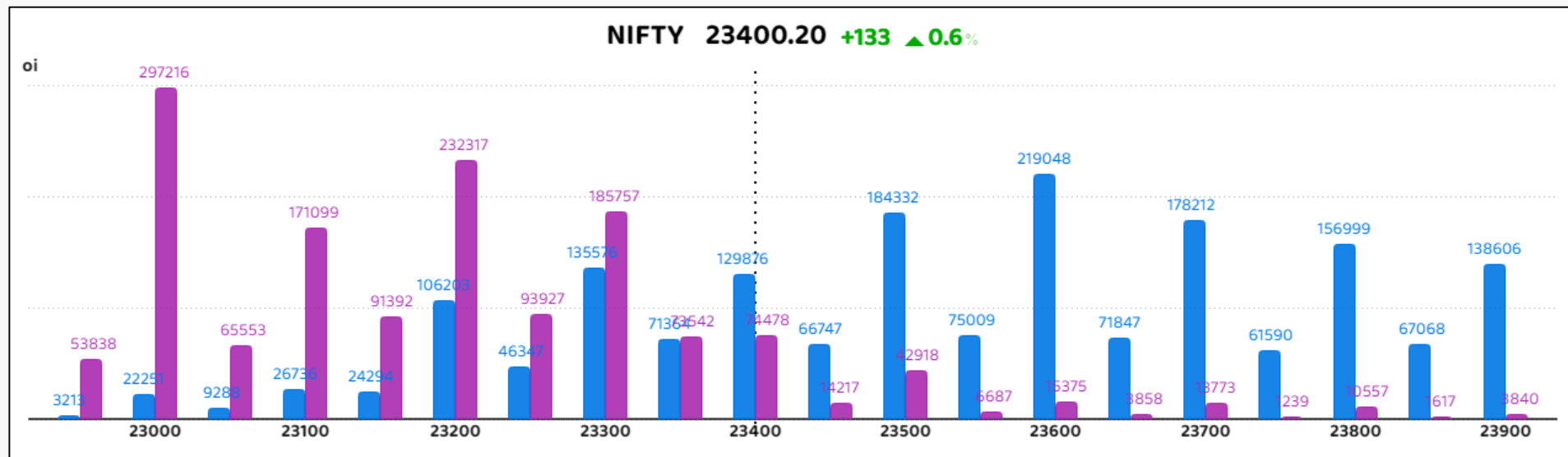


## DII and FII Daily Cash Market Flows



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

Call  Put 



For the Nifty, the 23600 Call and the 23000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 50000 Call and the 49000 Put saw the most amount of open interest.

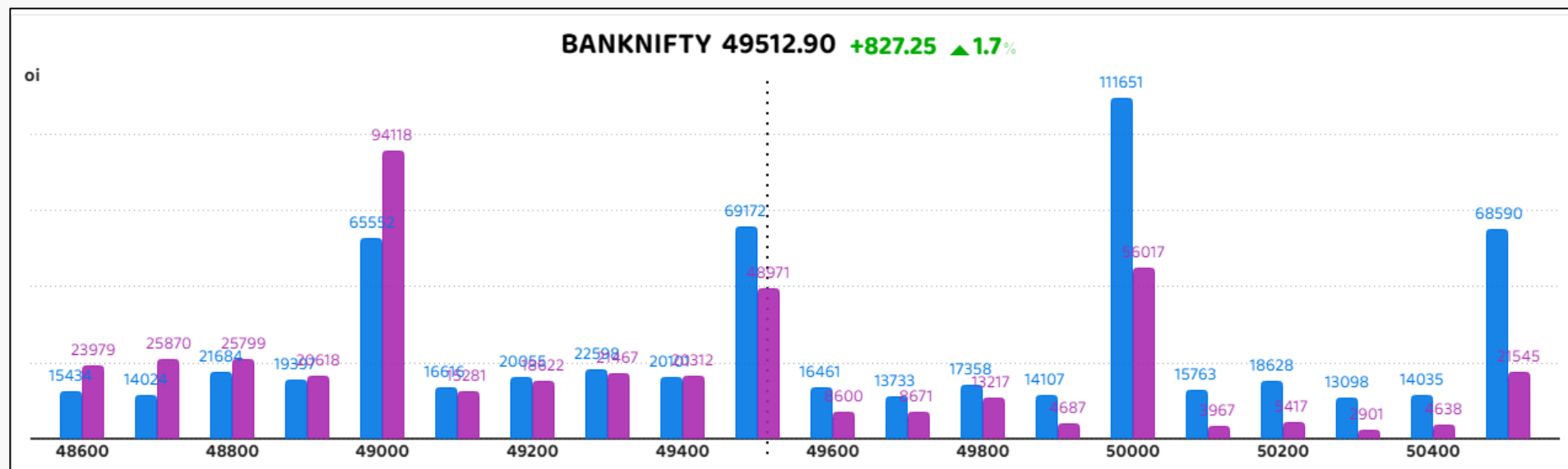
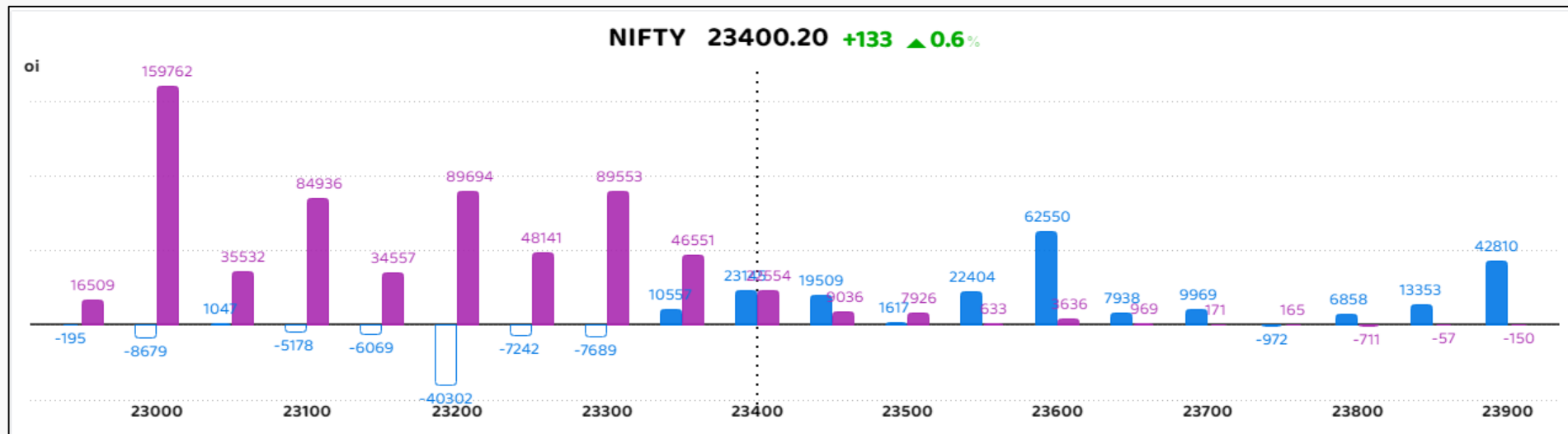


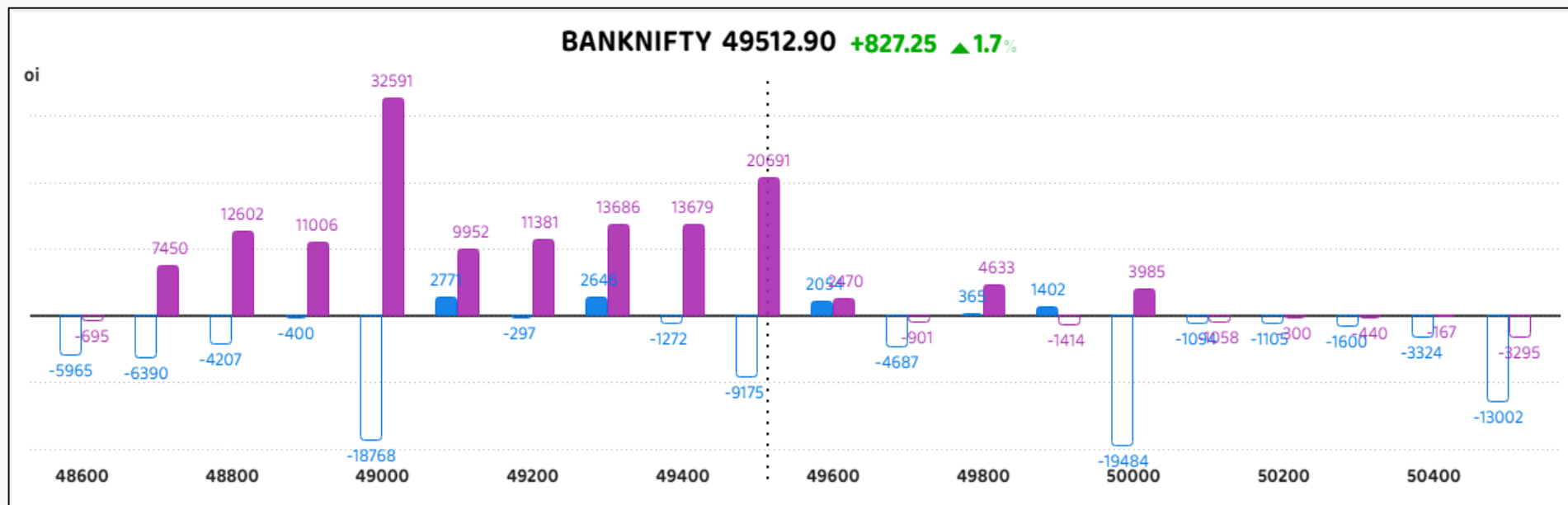
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23600 Call and the 23000 Put



For the Bank Nifty, the biggest open interest changes were seen at the 50000 Call & the 49000 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
SHRIRAM FINANCE	516.7	-1.9	43.7	44.9	22.3	94.6
COLGATE PALMOLIV	2708.6	0.9	30.2	31.7	9.5	93.0
PVR INOX LTD	1092.45	-0.9	40.8	43.7	14.8	89.8
PIRAMAL ENTERPRI	1025.3	-0.6	44.8	48.1	15.3	89.8
UNITED BREWERIES	2059.4	5.5	42.1	47.4	13.6	84.2

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
CAN FIN HOMES	708	2.4	22.1	46.5	21.2	3.6
HDFC LIFE INSURA	634.05	-1.3	25.0	80.6	19.6	8.7
BANDHAN BANK LTD	152.44	0.8	19.3	54.2	15.9	9.0
METROPOLIS HEALT	1895.55	0.3	23.6	54.6	19.2	12.5
L&T TECHNOLOGY S	5373.3	0.0	26.6	52.9	21.6	15.9

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
SHRIRAM FINANCE	516.7	-1.9	43.7	44.9	22.3	99.1
AU SMALL FINANCE	606	1.4	45.5	116.2	1.7	99.0
PVR INOX LTD	1092.45	-0.9	40.8	43.7	14.8	98.8
UNITED BREWERIES	2059.4	5.5	42.1	47.4	13.6	98.8
COLGATE PALMOLIV	2708.6	0.9	30.2	31.7	9.5	98.4

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
CAN FIN HOMES	708	2.4	22.1	46.5	21.2	0.6
BANDHAN BANK LTD	152.44	0.8	19.3	54.2	15.9	0.9
METROPOLIS HEALT	1895.55	0.3	23.6	54.6	19.2	1.6
INFOSYS LTD	1813.3	-0.1	19.0	45.6	4.9	10.5
DR LAL PATHLABS	2820.5	0.4	25.4	46.8	20.4	11.5



### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
VODAFONE IDEA LT	9.94	9.1	92284	21179	4.4
CUMMINS INDIA	2943.3	0.3	7007	1778	3.9
PAGE INDUSTRIES	46339.85	0.5	3687	965	3.8
MRF LTD	113786.6	-0.1	6155	1874	3.3
BAJAJ FINSERV LT	1735.2	3.2	58320	17864	3.3

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
NAVIN FLUORINE I	3777.15	0.6	2958	5275	1.8
L&T TECHNOLOGY S	5373.3	0.0	11515	17038	1.5
RAMCO CEMENT/THE	884.05	0.0	2790	2760	1.0
DALMIA BHARAT LT	1752.05	1.7	5426	5083	0.9
SYNGENE INTERNAT	821.7	0.3	2027	1880	0.9

## Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
SBI LIFE INSURAN	1499.7	-2.6	22958	22958	100.0
CUMMINS INDIA	2943.3	0.3	15536	15536	100.0
ICICI LOMBARD GE	1922.7	-1.3	13831	13831	100.0
INDIAN HOTELS CO	793	-2.5	22886	22886	100.0
OBEROI REALTY	2002.9	0.7	11739	11739	100.0

## Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
INDUS TOWERS LTD	375.6	3.6	14913	14913	100.0
MCX INDIA LTD	6026.9	-0.1	11443	11443	100.0
DALMIA BHARAT LT	1752.1	1.7	4322	4379	98.7
KOTAK MAHINDRA	1920.5	9.2	54623	57494	95.0
L&T TECHNOLOGY S	5373.3	0.0	14209	15062	94.3

## Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
KOTAK MAHINDRA	1920.5	9.2	314817	314817	100.0
VODAFONE IDEA LT	9.94	9.1	92284	92284	100.0
ICICI LOMBARD GE	1922.7	-1.3	59341	72216	82.2

## Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
KOTAK MAHINDRA	1920.5	9.2	220101	220101	100.0
INDIAN HOTELS CO	793	-2.5	49788	55207	90.2
SBI LIFE INSURAN	1499.7	-2.6	33973	39353	86.3

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
KOTAK MAHINDRA	1920.5	9.2	314817	51726	6.1
UNITED BREWERIES	2059.4	5.5	25994	4317	6.0
WIPRO LTD	300.25	6.5	113066	21967	5.1
ICICI LOMBARD GE	1922.7	-1.3	59341	12404	4.8
INDIAN HOTELS CO	793	-2.5	85180	20018	4.3

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
KOTAK MAHINDRA	1920.5	9.2	220101	36063	6.1
WIPRO LTD	300.25	6.5	69039	14862	4.6
UNITED BREWERIES	2059.4	5.5	10566	2743	3.9
ICICI LOMBARD GE	1922.7	-1.3	25495	6672	3.8
INDIAN HOTELS CO	793	-2.5	49788	13472	3.7

### Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
ICICI LOMBARD GE	1922.7	-1.3	13831	4566	3.0
SBI LIFE INSURAN	1499.7	-2.6	22958	8445	2.7
ORACLE FINANCIAL	10017.5	-0.1	27282	10380	2.6
INDIAN HOTELS CO	793	-2.5	22886	9801	2.3
AXIS BANK LTD	988.05	-0.3	80497	35912	2.2

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
KOTAK MAHINDRA	1920.5	9.2	54623	20999	2.6
L&T TECHNOLOGY S	5373.3	0.0	14209	5634	2.5
HAVELLS INDIA	1601.1	1.7	9583	4334	2.2
ICICI LOMBARD GE	1922.7	-1.3	7248	3344	2.2
ORACLE FINANCIAL	10017.5	-0.1	13331	6304	2.1

## 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
ADANIENT	2800	1479600	14.6%	2443	2800	2327700	14.6%	INFY	2000	7808800	10.3%	1813	1700	1700400	-6.2%
ADANIPTS	1200	1622000	4.5%	1149	1200	864800	4.5%	ITC	460	7008000	5.1%	438	440	2251200	0.5%
APOLLOHOSP	7500	229375	10.6%	6781	6500	67125	-4.1%	JSWSTEEL	940	846450	2.3%	919	900	905850	-2.1%
ASIANPAINT	2500	1109000	9.6%	2281	2200	827000	-3.5%	KOTAKBANK	2000	1870400	4.1%	1921	1900	2902000	-1.1%
AXISBANK	1100	5716250	11.3%	988	1000	2381250	1.2%	LT	3700	802950	3.0%	3593	3400	586800	-5.4%
BAJAJ-AUTO	10000	233625	17.0%	8544	7600	151575	-11.1%	LTIM	6500	184950	11.6%	5825	5500	137400	-5.6%
BAJAJFINSV	1700	1688500	-2.0%	1735	1700	890000	-2.0%	M&M	3200	845425	10.8%	2888	2900	743050	0.4%
BAJFINANCE	7500	533000	0.8%	7440	7200	347625	-3.2%	MARUTI	12000	676050	-0.2%	12020	12000	272250	-0.2%
BHARTIARTL	1640	2854275	-0.1%	1641	1600	1208875	-2.5%	NESTLEIND	2300	418800	3.9%	2214	1940	247800	-12.4%
BPCL	300	6872400	8.2%	277	260	2577600	-6.2%	NTPC	340	9285000	1.2%	336	300	3255000	-10.7%
BRITANNIA	5000	268900	2.3%	4885	4700	496300	-3.8%	ONGC	264	15080450	-2.0%	269	250	4664275	-7.2%
CIPLA	1540	703625	6.5%	1445	1320	256100	-8.7%	POWERGRID	310	3934800	1.2%	306	290	2152800	-5.3%
COALINDIA	400	4426800	3.3%	387	380	1662150	-1.8%	RELIANCE	1300	10875500	-0.4%	1305	1200	4396000	-8.1%
DIVISLAB	6000	153700	0.0%	6001	5800	152700	-3.3%	SBLIFE	1600	1852500	6.7%	1500	1500	530625	0.0%
DRREDDY	1400	1692500	7.5%	1302	1300	496250	-0.2%	SBIN	800	8628000	2.7%	779	700	5020500	-10.2%
EICHERMOT	5000	360675	-0.3%	5017	5000	144725	-0.3%	SUNPHARMA	1900	1410850	6.8%	1778	1700	365750	-4.4%
GRASIM	2600	379750	8.2%	2402	2500	183500	4.1%	TATACONSUM	1000	870504	4.1%	960	900	674880	-6.3%
HCLTECH	2000	3612000	11.3%	1796	1600	772450	-10.9%	TATAMOTORS	800	7297950	3.3%	774	700	3335200	-9.6%
HDFCBANK	1800	6590650	9.0%	1651	1560	2457950	-5.5%	TATASTEEL	140	27060000	6.3%	132	135	9075000	2.5%
HDFCLIFE	660	3360500	4.1%	634	600	1907400	-5.4%	TCS	4300	1709750	5.4%	4078	4000	681625	-1.9%
HEROMOTOCO	4300	498450	5.1%	4092	4000	144300	-2.3%	TECHM	1760	1783800	5.1%	1675	1600	568200	-4.5%
HINDALCO	600	3395000	-2.9%	618	600	2535400	-2.9%	TITAN	3400	596050	0.5%	3382	3300	249900	-2.4%
HINDUNILVR	2500	1166700	6.6%	2345	2300	445800	-1.9%	ULTRACEMCO	12000	154500	12.9%	10624	10000	49750	-5.9%
ICICIBANK	1300	3535000	5.4%	1233	1200	1733200	-2.7%	UPL	560	2119220	1.3%	553	500	837390	-9.6%
INDUSINDBK	1000	5376000	3.0%	971	960	1260500	-1.1%	WIPRO	310	9222000	3.2%	300	280	6198000	-6.7%

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

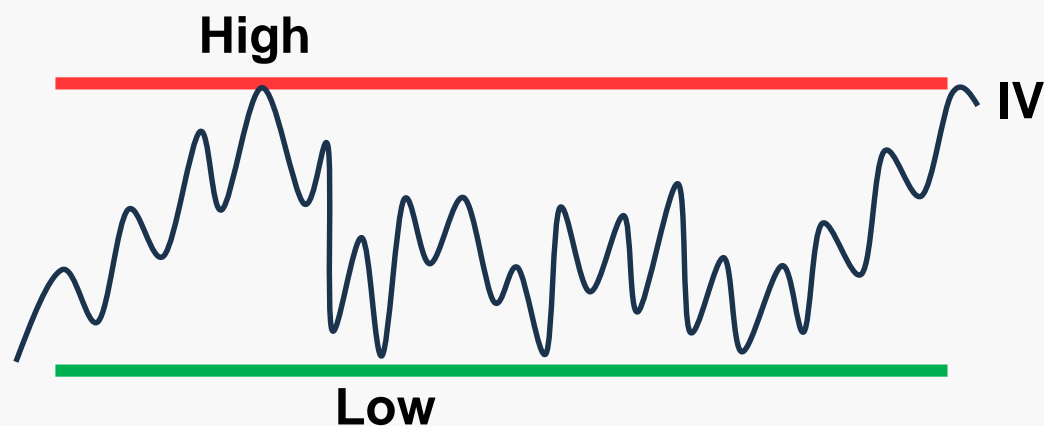
- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating 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*

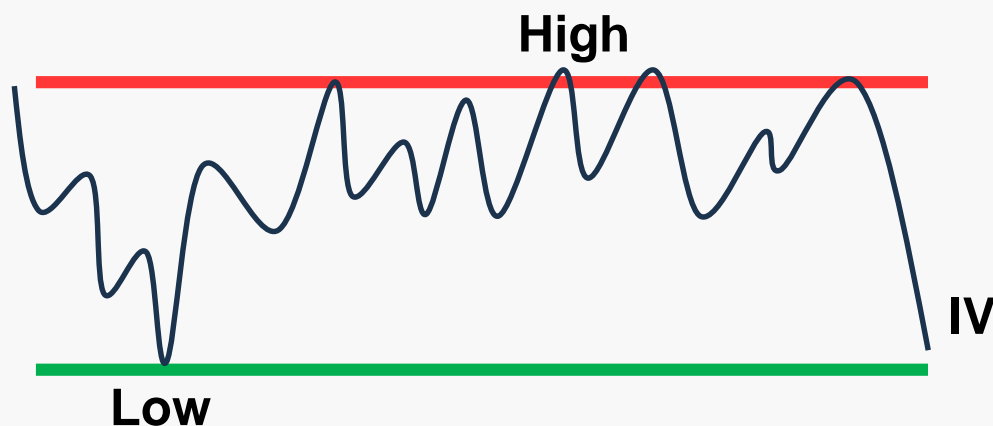
- **Volume:** Number of contracts traded for the day. If A bought 10 calls & B sold 10 calls, the volume for the day is 10 contracts
- **Open Interest:** The number of derivatives contracts that are open (have not been closed out). If A bought 10 calls, B bought another 10 calls and C sold 20 calls, 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 (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](http://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

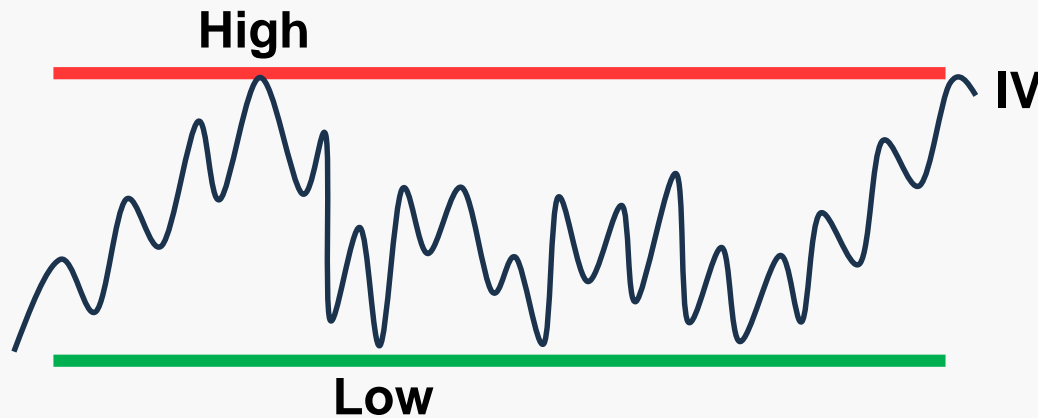


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

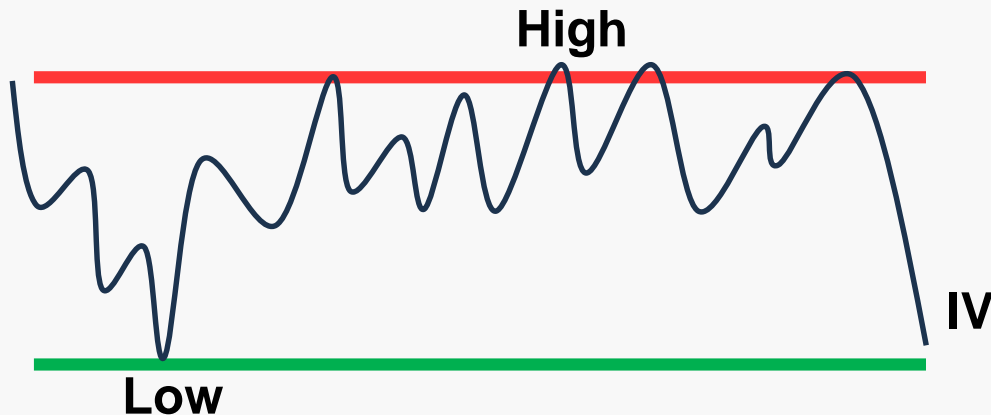


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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