



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,200	1.0%▲
Open Interest (OI)	1,92,59,250	3.2%▼
Change in OI (abs)	1,92,59,250	6,30,600▼
Premium / Discount (Abs)	10	56▼
Inference	Short Covering	

Bank Nifty Futures

	Value	Change
Most recent settlement	50,097	0.6%▲
Open interest (OI)	45,34,230	3.0%▼
Change in OI (abs)	45,34,230	1,41,390▼
Premium / Discount (Abs)	34	71▼
Inference	Short Covering	

Volatility Insights

	Value	Change
India VIX Index	12.6	0.7▼
Nifty ATM IV (%)	10.54	1.8▼
Bank Nifty ATM IV (%)	12.39	1.0▼
PCR (Nifty)	1.16	0.04▼
PCR (Bank Nifty)	1.17	0.06▼

The Long Ratio for FII Index Futures has risen to **29.7%**, up from **26.8%** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MANAPPURAM	7,71,18,000	25.6%	218.11	1.8%
ESCORTS	15,96,900	6.3%	3209.45	0.6%
ITC	9,13,02,400	6.1%	404.25	0.0%
LTF	8,92,66,772	6.0%	147.55	1.0%
PHOENIXLTD	19,91,150	5.6%	1630.35	4.4%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KEI	27,55,500	120.9%	2855.8	-13.1%
POLYCAB	32,59,625	31.4%	5096	-5.9%
CHAMBLFERT	1,04,21,500	9.1%	581.3	-1.1%
IREDA	3,92,45,700	7.7%	147.77	-0.8%
OFSS	8,89,000	7.3%	7601.45	-1.3%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MAXHEALTH	87,52,800	-11.7%	1135.55	4.4%
JKCEMENT	4,00,250	-11.1%	4661.2	0.5%
HDFCLIFE	2,37,00,600	-7.3%	673.8	1.4%
BEL	8,96,66,700	-7.3%	296.77	2.2%
NYKAA	3,98,51,550	-5.2%	168.36	1.8%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DLF	4,44,85,650	-3.7%	694.15	-0.5%
BANKINDIA	5,34,56,175	-3.5%	102.37	-0.9%
INDUSINDBK	5,24,52,500	-2.9%	688.05	-1.0%
CUMMINSIND	31,53,000	-1.7%	2994.1	-0.4%
PAYTM	2,64,75,150	-1.6%	735.6	-3.7%

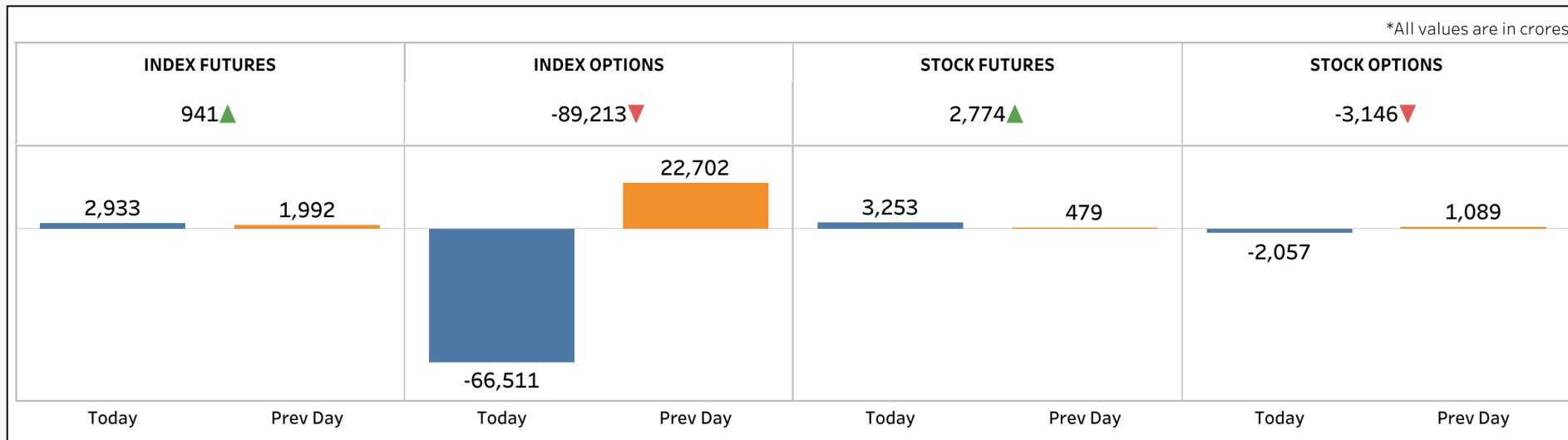
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Data by Participant

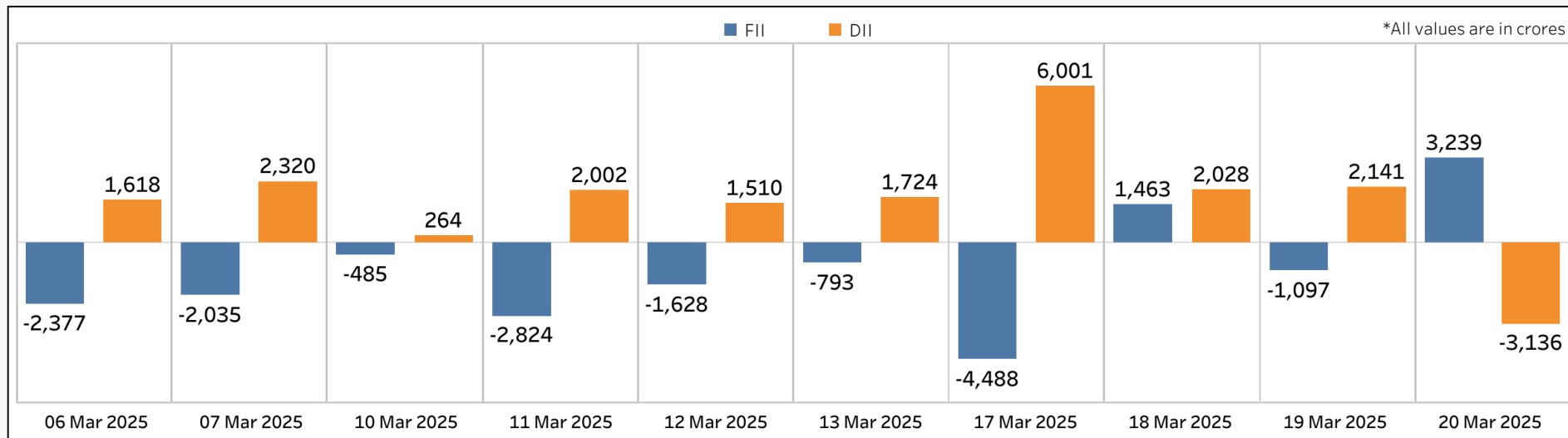
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-177,643 ▼	4,599 ▲	-145,750 ▼	40,027 ▲	28 ▲	-2,647 ▼	-4,800 ▼	22,610 ▲
82,333	17,320	47,630	46,081		4,026	1,000	57,671
-95,310	12,721	-98,120	6,054	-87	6,673	5,800	35,061
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
88,011	-88,351	123,045	1,662,629	388	71,155	28,954	-3,805,353
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
70,600 ▲	-6,726 ▼	1,043 ▲	-40,121 ▼	107,015 ▲	4,774 ▲	149,505 ▲	-22,516 ▼
92,167				3,230	1,693	100,449	
21,567	-23,039	-3,331	-57,029	-103,785	-3,081	-49,056	-24,207
	-16,313	-4,374	-16,908				
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-253,165	66,741	47,944	1,920,410	164,766	-49,545	-199,946	222,314
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day

Daily Net Open Interest Change

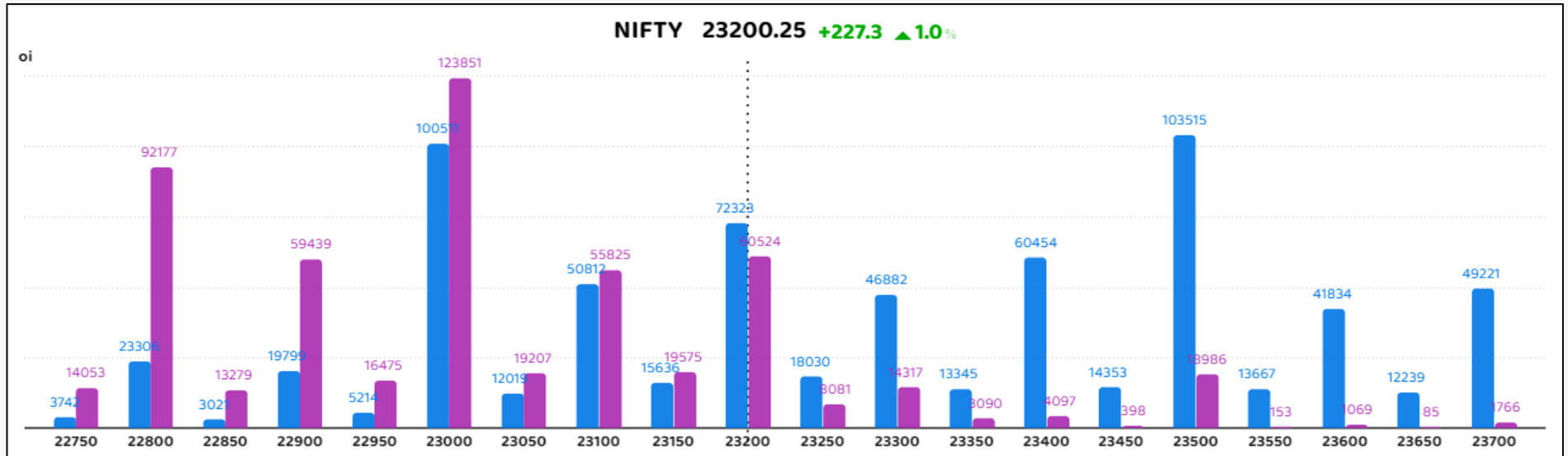


DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 23500 Call and the 23000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 51000 Call and the 50000 Put saw the most amount of open interest.

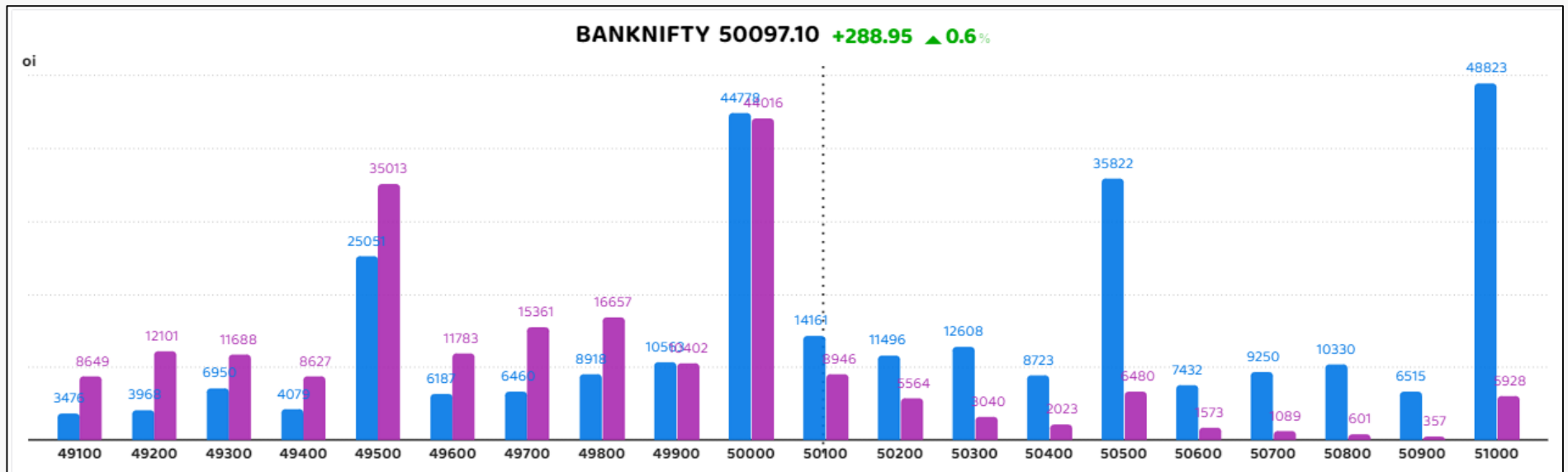
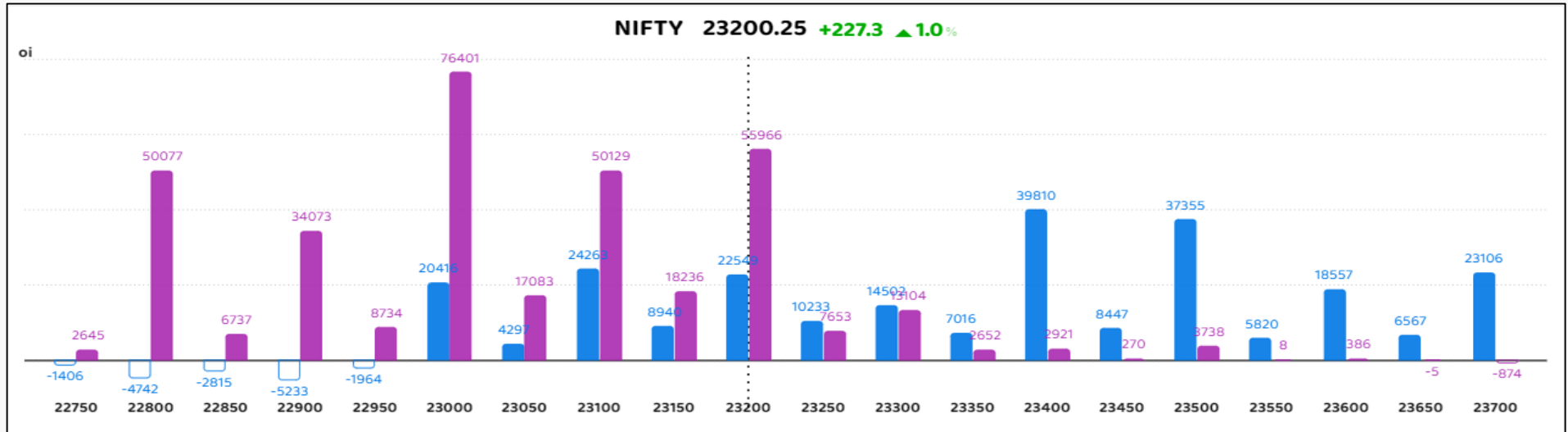


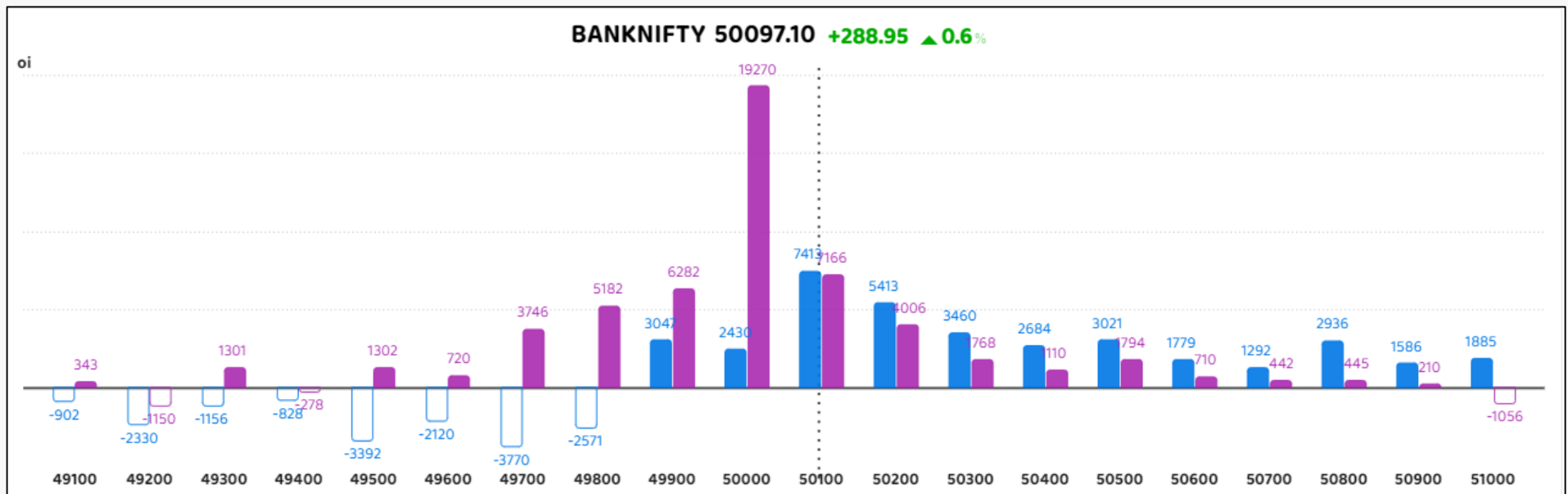
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23400 Call and the 23000 Put



For the Bank Nifty, the biggest open interest changes were seen at the 50100 Call & the 50000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
PERSISTENT SYS	5194.05	-1.6	44.2	45.0	26.9	95.8
LTIMINDTREE LTD	4421.15	1.3	36.8	37.7	20.0	94.7
DELHIVERY LTD	257.07	-1.5	43.8	46.1	29.4	86.2
DIXON TECHNOLOGI	13905.7	0.2	43.6	51.5	1.8	84.1
NCC LTD	201.48	2.4	49.3	52.6	32.4	83.8

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ALKEM LABORATORI	4906.2	1.1	13.6	48.8	13.6	0.0
ADANI TOTAL GAS	619.65	-0.5	29.1	78.9	28.9	0.4
PATANJALI FOODS	1750.45	0.1	29.0	65.0	28.4	1.6
HDFC LIFE INSURA	674.35	1.5	26.1	80.6	19.6	10.6
BANK OF BARODA	215.65	0.9	28.8	66.9	24.3	10.6

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
PERSISTENT SYS	5194.05	-1.6	44.2	45.0	26.9	99.5
LTIMINDTREE LTD	4421.15	1.3	36.8	37.7	20.0	99.3
INDUSIND BANK	684.1	-1.2	53.8	64.6	12.4	98.5
KEI INDUS LTD	2841.1	-13.5	57.2	71.6	17.6	97.7
WIPRO LTD	268	0.9	36.2	63.9	16.2	97.6

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ALKEM LABORATORI	4906.2	1.1	13.6	48.8	13.6	0.0
ADANI TOTAL GAS	619.65	-0.5	29.1	78.9	28.9	1.7
PAGE INDUSTRIES	41936.45	1.7	17.0	41.8	13.0	3.8
L&T FINANCE LTD	149.71	2.3	26.3	67.0	5.4	4.4
PIDILITE INDS	2759.1	1.0	18.1	33.7	13.3	5.1

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
SUPREME INDS LTD	3493.75	1.9	6331	568	11.2
AARTI INDUS LTD	399.25	0.0	14143	2943	4.8
TUBE INVESTMENTS	2891.3	1.1	8764	1829	4.8
INDIAN BANK	534.25	1.7	3511	742	4.7
TATA ELXSI LTD	5377.35	0.2	16396	3771	4.4

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
PETRONET LNG LTD	297.55	0.0	4576	7642	1.7
JUBILANT FOODWOR	627.6	-1.5	10082	13892	1.4
PATANJALI FOODS	1750.45	0.1	2336	3007	1.3
ICICI BANK LTD	1321.7	0.7	49578	53761	1.1
POLYCAB INDIA LT	5083.4	-6.5	285654	307839	1.1

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
TITAGARH RAIL SY	742.7	-1.3	6728	6728	100.0
INDIAN RENEWABLE	149.96	-1.3	7750	7750	100.0
PHOENIX MILLS	1624	4.4	1707	1707	100.0
KEI INDUS LTD	2841.1	-13.5	27680	27680	100.0
SOLAR INDUSTRIES	10424.45	1.1	2883	2920	98.7

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
JINDAL STAINLESS	654.05	-0.2	1796	1796	100.0
TITAGARH RAIL SY	742.7	-1.3	2827	2827	100.0
MAX HEALTHCARE I	1135.85	4.5	4460	4460	100.0
INTERGLOBE AVIAT	5086.75	2.1	20109	20109	100.0
SOLAR INDUSTRIES	10424.45	1.1	2052	2052	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
MAX HEALTHCARE I	1135.85	4.5	29383	29383	100.0
KEI INDUS LTD	2841.1	-13.5	121185	121185	100.0
NCC LTD	201.48	2.4	41034	41034	100.0
TITAGARH RAIL SY	742.7	-1.3	23036	26592	86.6
PHOENIX MILLS	1624	4.4	6250	7290	85.7

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
TITAGARH RAIL SY	742.7	-1.3	8868	8868	100.0
POLYCAB INDIA LT	5083.4	-6.5	307839	307839	100.0
KEI INDUS LTD	2841.1	-13.5	113078	113078	100.0
MAX HEALTHCARE I	1135.85	4.5	14361	15672	91.6
INDIAN RENEWABLE	149.96	-1.3	4250	4910	86.6

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
KEI INDUS LTD	2841.1	-13.5	27680	10668	2.6
TITAGARH RAIL SY	742.7	-1.3	6728	3125	2.2
INTERGLOBE AVIAT	5086.75	2.1	21660	11072	2.0
PIDILITE INDS	2759.1	1.0	5041	2679	1.9
INDIAN RENEWABLE	149.96	-1.3	7750	4397	1.8

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
PHOENIX MILLS	1624	4.4	1738	708	2.5
PB FINTECH LTD	1559.2	0.2	8816	3828	2.3
MAX HEALTHCARE I	1135.85	4.5	4460	2021	2.2
KEI INDUS LTD	2841.1	-13.5	11533	5262	2.2
MUTHOOT FINANCE	2374.75	-1.7	9970	4637	2.2

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
MANAPPURAM FINAN	217.5	1.7	27812	3098	9.0
POLYCAB INDIA LT	5083.4	-6.5	285654	56290	5.1
TITAN CO LTD	3193.1	3.8	143243	31373	4.6
BHARAT FORGE CO	1194.3	5.1	54126	12863	4.2
INTERGLOBE AVIAT	5086.75	2.1	131271	34921	3.8

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	5083.4	-6.5	307839	40904	7.5
MANAPPURAM FINAN	217.5	1.7	13348	2084	6.4
HAVELLS INDIA	1501.35	-3.6	36317	8127	4.5
TITAN CO LTD	3193.1	3.8	55962	17050	3.3
BHARAT FORGE CO	1194.3	5.1	19651	6395	3.1

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	2600	1021500	11.1%	2339	2600	1870500	11.1%	INFY	1700	2409200	5.2%	1616	1600	1943600	-1.0%
ADANIPTS	1200	1119200	1.9%	1177	1100	884000	-6.6%	ITC	410	7838400	1.5%	404	400	6515200	-1.0%
APOLLOHOSP	6500	108875	0.4%	6474	6200	71375	-4.2%	JSWSTEEL	1100	845775	4.7%	1050	1000	818100	-4.8%
ASIANPAINT	2300	893200	0.6%	2287	2200	561600	-3.8%	KOTAKBANK	2040	927200	0.2%	2036	1900	1200400	-6.7%
AXISBANK	1100	2193750	4.3%	1054	1000	1504375	-5.2%	LT	3250	828300	-3.0%	3351	3200	597150	-4.5%
BAJAJ-AUTO	8000	185250	1.0%	7920	7800	117750	-1.5%	LTIM	4800	366600	8.6%	4421	4000	162300	-9.5%
BAJAJFINSV	1900	1984500	2.6%	1852	1800	918500	-2.8%	M&M	3000	847700	6.1%	2828	2700	615475	-4.5%
BAJFINANCE	9000	599625	3.7%	8680	8500	367750	-2.1%	MARUTI	11800	279950	0.6%	11730	11500	136500	-2.0%
BHARTIARTL	1700	2740750	-0.3%	1705	1600	1741350	-6.2%	NESTLEIND	2260	220400	1.7%	2222	2100	252400	-5.5%
BPCL	270	1.5E+07	-0.8%	272	270	3155400	-0.8%	NTPC	340	11770500	-0.5%	342	330	3703500	-3.4%
BRITANNIA	4900	131200	1.4%	4831	4700	94700	-2.7%	ONGC	235	12235300	-0.3%	236	230	3861550	-2.4%
CIPLA	1500	621400	-0.8%	1512	1240	518375	-18.0%	POWERGRID	280	6753600	-0.1%	280	280	2917800	-0.1%
COALINDIA	395	4610550	-0.4%	396	450	2631300	13.5%	RELIANCE	1300	9629000	2.4%	1269	1200	3834500	-5.4%
DIVISLAB	6000	139800	3.1%	5822	5500	97000	-5.5%	SBLIFE	1500	670125	0.1%	1498	1400	616125	-6.6%
DRREDDY	1200	2080625	1.1%	1187	1100	653750	-7.3%	SBIN	800	6592500	6.7%	750	720	4393500	-3.9%
EICHERMOT	5200	203525	-0.6%	5229	5000	371525	-4.4%	SUNPHARMA	1680	2051350	-4.0%	1750	1680	1026550	-4.0%
GRASIM	2420	301750	-2.0%	2468	2400	243250	-2.8%	TATACONSUM	1000	646152	3.5%	966	950	410400	-1.6%
HCLTECH	1600	596400	2.4%	1562	1400	725550	-10.4%	TATAMOTORS	700	7099950	1.4%	690	660	2396900	-4.4%
HDFCBANK	1760	4772350	-0.5%	1769	1740	2321550	-1.6%	TATASTEEL	155	32329000	-2.5%	159	150	14030500	-5.7%
HDFCLIFE	700	1409100	3.8%	674	640	1852400	-5.1%	TCS	3800	1165500	6.6%	3563	3500	684425	-1.8%
HEROMOTOCO	4000	618900	11.2%	3597	3100	233850	-13.8%	TECHM	1600	833400	13.4%	1411	1400	670200	-0.7%
HINDALCO	720	3812200	2.0%	706	700	2321200	-0.8%	TITAN	3300	495950	3.3%	3193	3000	368550	-6.0%
HINDUNILVR	2300	934500	2.6%	2242	2200	501300	-1.9%	ULTRACEMCO	10400	139900	-5.0%	10948	10400	83250	-5.0%
ICICIBANK	1350	1887900	2.1%	1322	1300	3040100	-1.6%	UPL	640	1943070	-1.1%	647	620	1647680	-4.2%
INDUSINDBK	750	4285000	9.6%	684	600	1232000	-12.3%	WIPRO	300	8769000	11.9%	268	260	4068000	-3.0%

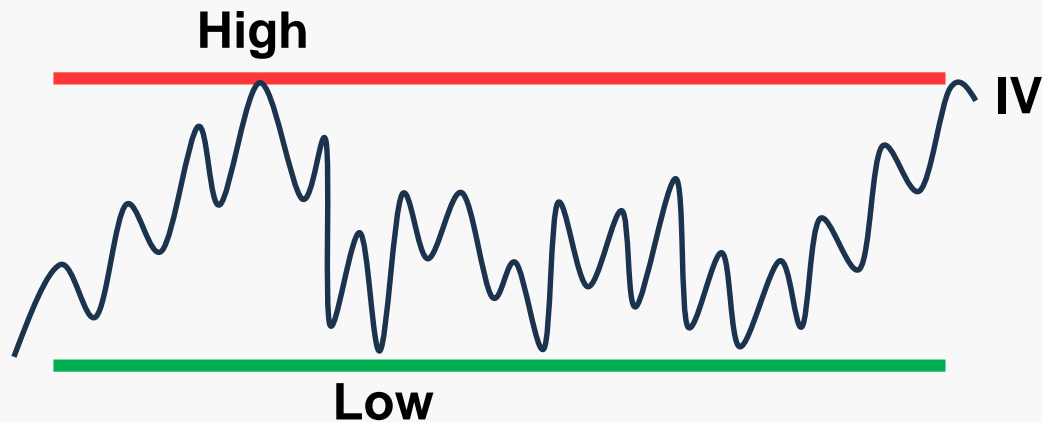
*If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green
If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike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

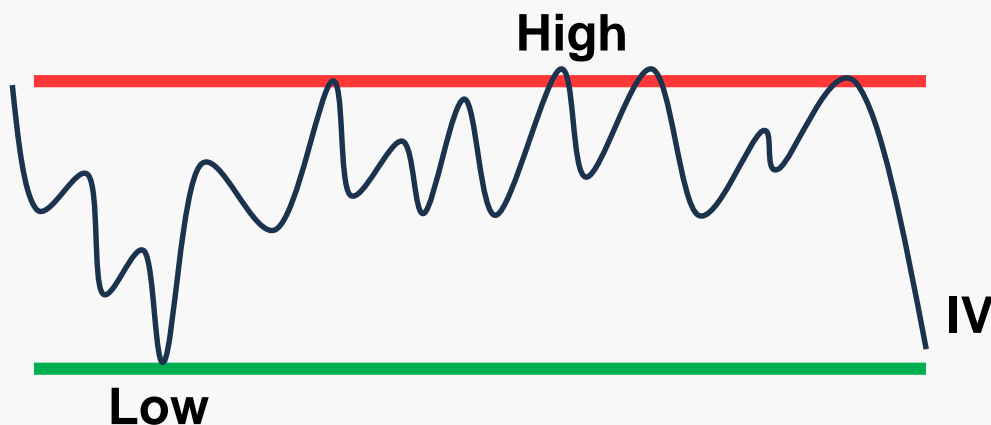
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

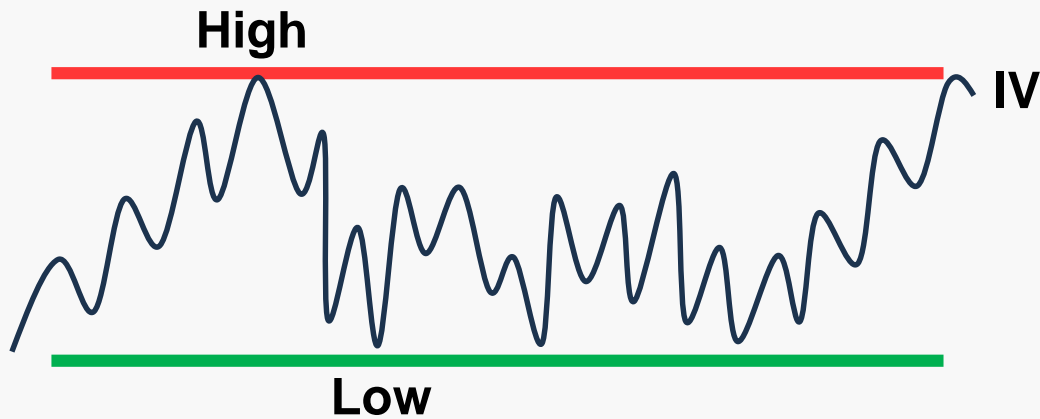


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

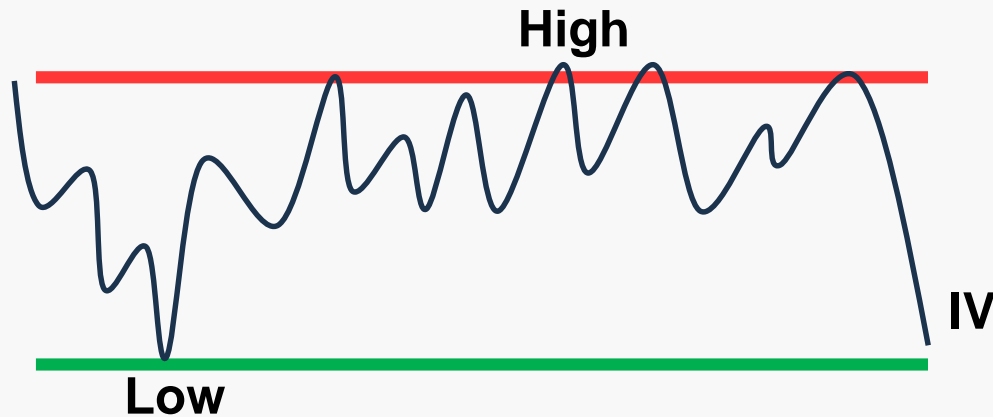


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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