



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	22,191	0.3% ▼
Open Interest (OI)	1,97,46,600	2.2% ▲
Change in OI (abs)	1,97,46,600	4,32,600 ▲
Premium / Discount (Abs)	108	32 ▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	48,472	0.2% ▲
Open interest (OI)	39,29,490	2.2% ▼
Change in OI (abs)	39,29,490	88,170 ▼
Premium / Discount (Abs)	227	55 ▼
Inference	Short Covering	

Volatility Insights

	Value	Change
India VIX Index	13.83	0.1 ▲
Nifty ATM IV (%)	13.26	0.1 ▼
Bank Nifty ATM IV (%)	15.42	0.4 ▼
PCR (Nifty)	0.86	0.05 ▲
PCR (Bank Nifty)	1.00	0.09 ▲

The Long Ratio for the FII Index Futures jump to 16.7%, 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 (%)
RECLTD	8,61,15,000	16.7%	387.85	2.0%
ADANIEN	2,23,12,500	7.3%	2155.65	1.2%
CESC	2,95,74,675	7.0%	138.01	3.8%
MFSL	45,18,400	6.6%	1008.55	1.6%
NBCC	2,39,36,600	6.3%	74.99	1.2%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
IREDA	1,67,64,900	56.7%	136.91	-3.0%
MARICO	1,71,24,000	13.5%	590.85	-1.1%
MANAPPURAM	7,54,50,000	7.6%	198.78	-0.8%
IIFL	34,33,250	6.8%	285.15	-3.0%
BALKRISIND	21,33,600	6.6%	2519	-2.9%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
SBIN	11,63,06,250	-5.5%	718	2.9%
GODREJPROP	69,22,800	-4.9%	2018.25	0.4%
POLYCAB	30,75,500	-4.8%	4896.35	0.2%
DIXON	11,42,750	-4.4%	14242.75	1.1%
DEEPAKNT	16,99,800	-4.1%	1862.65	0.3%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
LTTS	6,51,900	-5.2%	4575.2	-0.1%
CYIENT	24,99,600	-4.4%	1213.4	-1.8%
HAVELLS	73,05,000	-2.7%	1414.8	-1.5%
CAMS	13,10,125	-2.2%	3143.65	-0.3%
MPHASIS	38,97,300	-2.1%	2254.15	-1.0%

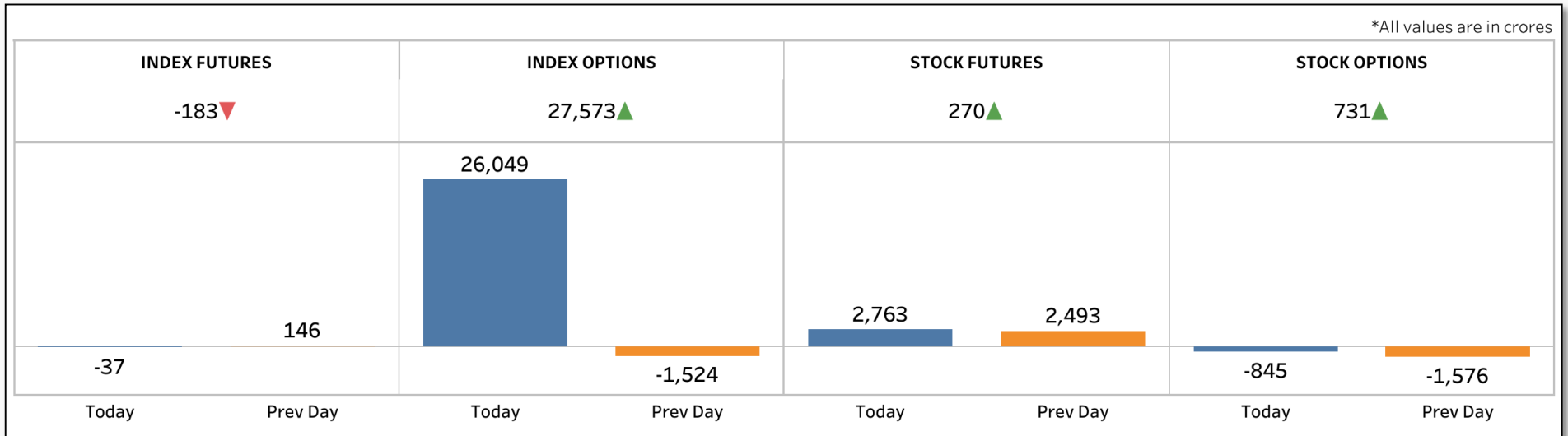
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Data by Participant

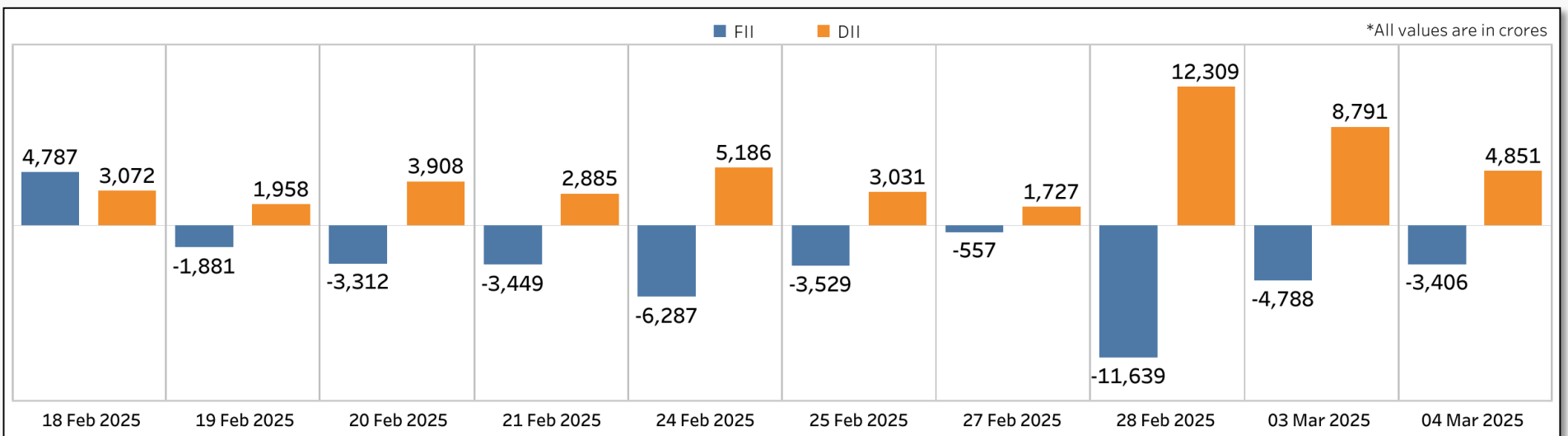
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
71,470 ▲	-430 ▼	94,451 ▲	-2,923 ▼	-2,000 ▼	-294 ▼	-1,002 ▼	31,764 ▲
71,305	369	83,415	44,455	1,400	3,531	75	-1,941
	799		47,378	3,400	3,825		
-165		-11,036					-33,705
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
34,920	-164,704	246,493	1,518,295	4,870	43,683	17,051	-4,031,231
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
-13,909 ▼	8,812 ▲	-125,133 ▼	-5,798 ▼	-55,561 ▼	-8,088 ▼	31,685 ▲	-23,043 ▼
	5,342	82,714		46,086			
	-3,470				-1,154		
-63,230		-42,419	-14,240	-9,475	-9,242	-40,069	-28,274
-49,321			-8,442			-71,754	-5,231
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-197,735	142,321	-248,571	2,070,083	157,945	-21,300	-14,975	442,853
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day

Daily Net Open Interest Change

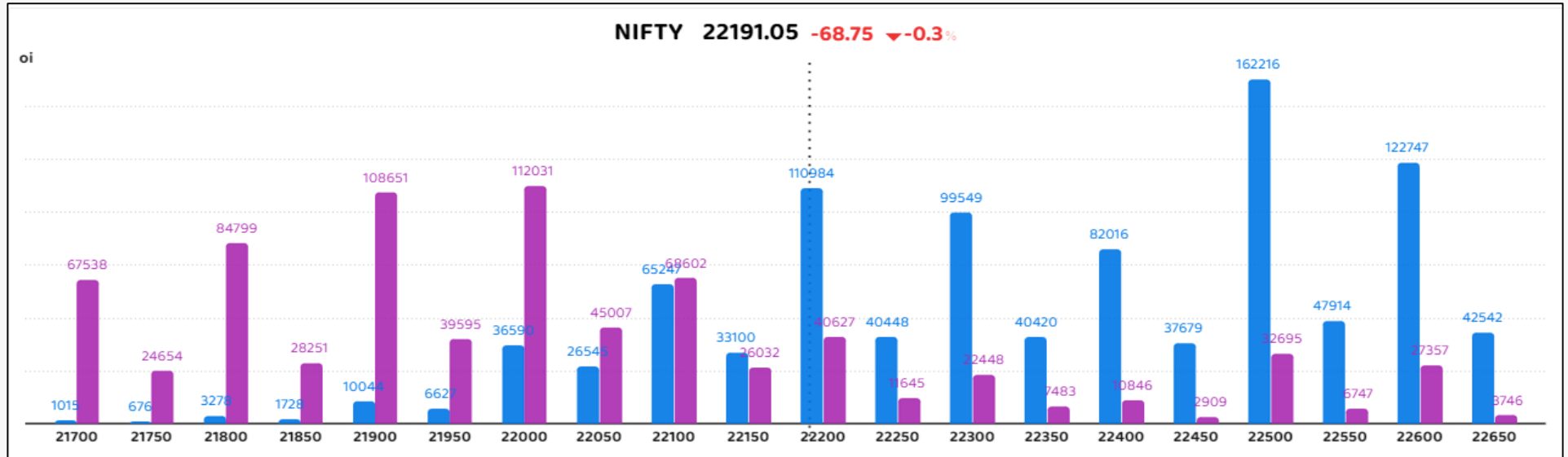


DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 22500 Call and the 22000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 49000 Call and the 48000 Put saw the most amount of open interest.

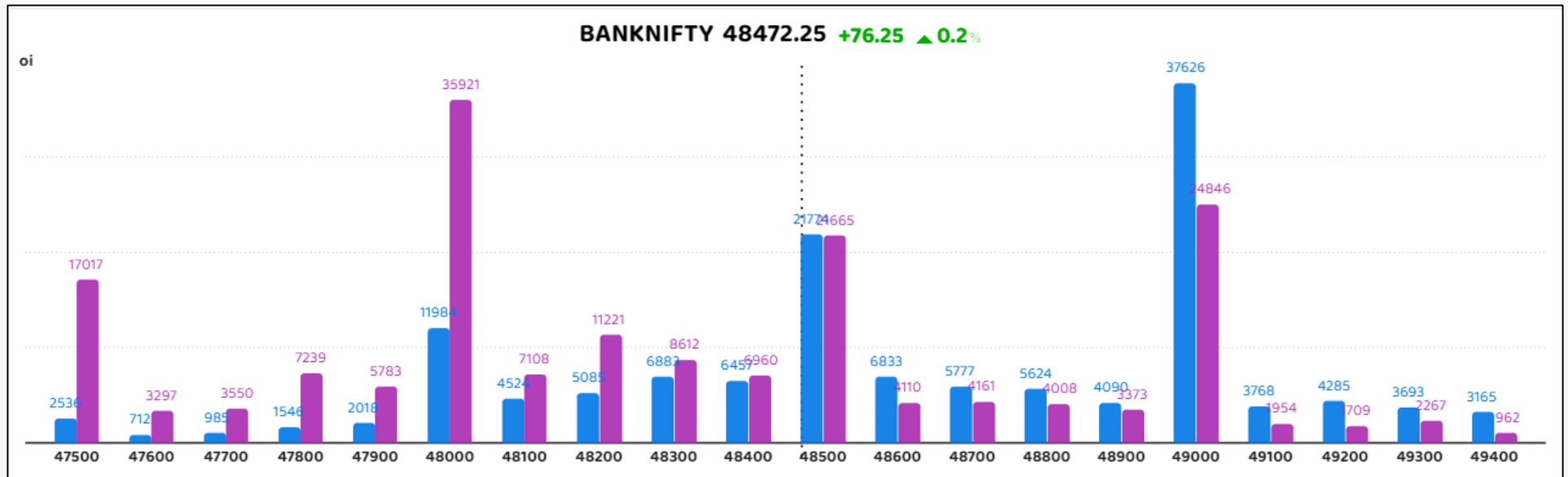
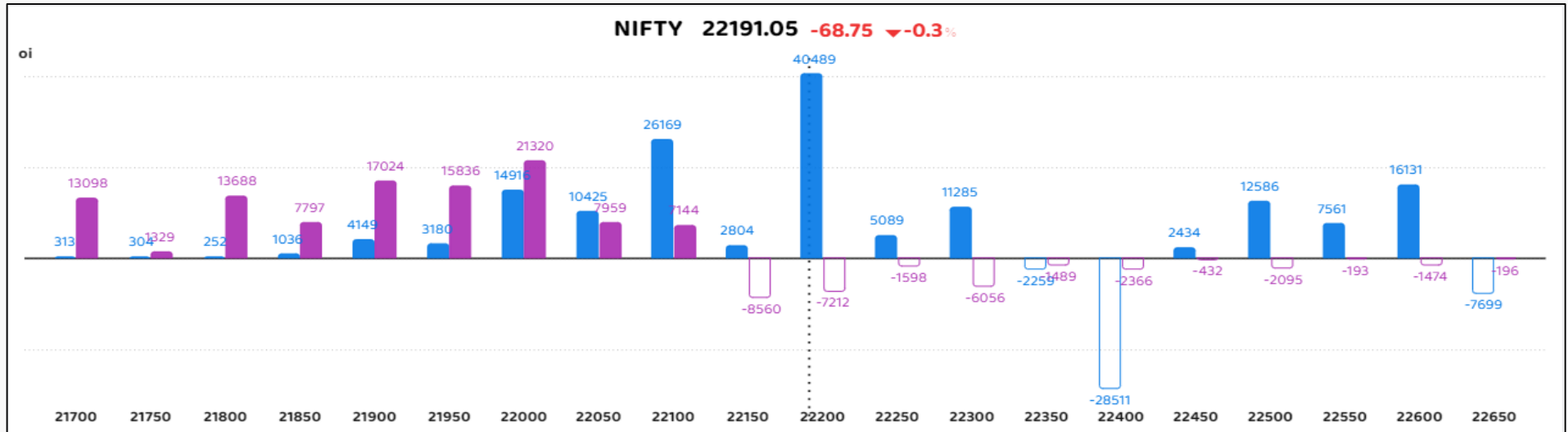


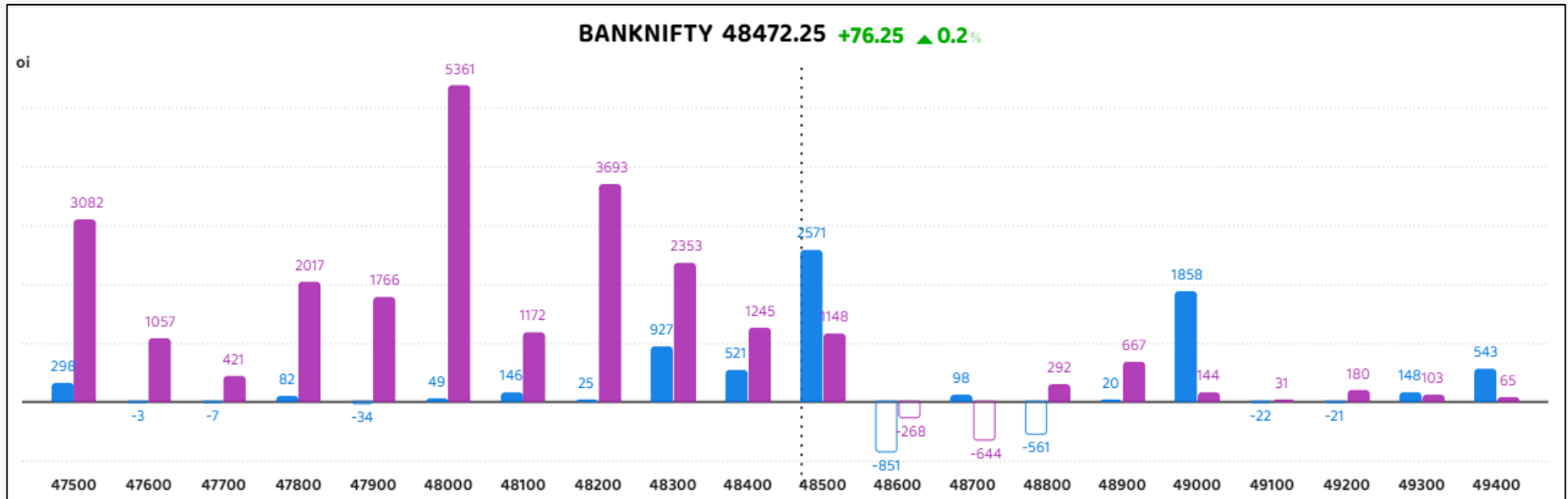
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 22200 Call and the 22000 Put



For the Bank Nifty, the biggest open interest changes were seen at the 48500 Call & the 48000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
NTPC LTD	313.75	-0.2	79.7	79.7	15.7	100.0
BAJAJ AUTO LTD	7333.3	-4.9	29.1	34.5	2.1	83.2
CITY UNION BANK	147.04	-1.5	46.8	52.1	21.1	83.1
DIXON TECHNOLOGI	14190.35	1.0	42.5	51.5	1.8	81.8
LAURUS LABS LTD	545.5	3.2	39.2	44.8	16.1	80.3

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
DALMIA BHARAT LT	1699.25	-0.7	21.6	41.8	20.0	7.3
CIPLA LTD	1401.8	-0.4	23.9	61.3	18.0	13.6
FED BANK LTD	176.51	-1.7	27.3	130.9	7.0	16.4
BANK OF BARODA	195.92	0.0	31.5	66.9	24.3	17.0
ICICI BANK LTD	1210.4	0.3	16.1	46.1	9.3	18.4

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
NTPC LTD	313.75	-0.2	79.7	79.7	15.7	100.0
CITY UNION BANK	147.04	-1.5	46.8	52.1	21.1	99.6
HDFC LIFE INSURA	616.5	-0.2	58.1	80.6	19.6	99.2
ADANI PORTS AND	1057.95	0.5	57.6	97.8	23.2	95.5
GRANULES INDIA	471.6	-0.3	40.9	54.5	11.0	94.0

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
DALMIA BHARAT LT	1699.25	-0.7	21.6	41.8	20.0	1.2
ICICI BANK LTD	1210.4	0.3	16.1	46.1	9.3	2.6
RELIANCE INDS	1161.9	-0.8	17.4	33.8	2.1	7.1
ZYDUS LIFESCIENC	871.65	0.1	25.2	53.1	18.1	12.4
MUTHOOT FINANCE	2151.75	0.3	25.7	51.9	16.2	12.7

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PI INDUSTRIES	3040.7	1.8	11102	2669	4.2
HINDUSTAN COPPER	202.34	-0.5	1825	573	3.2
PAGE INDUSTRIES	40319.8	-0.6	2222	730	3.0
SIEMENS LTD	4931.9	2.0	25818	8810	2.9
SRF LTD	2853.3	0.9	11338	3981	2.9

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
TORRENT PHARMA	2930.3	-1.0	649	1195	1.8
MPHASIS LTD	2246.6	-0.8	3879	5403	1.4
SYNGENE INTERNAT	654.2	0.4	1112	1432	1.3
JUBILANT FOODWOR	610.25	-3.6	5112	6416	1.3
APOLLO TYRES LTD	378.7	-2.2	5406	6555	1.2

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
NO STOCK OPTION MET THE CONDITIONS MENTIONED IN THE FOOTNOTE					

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
NO STOCK OPTION MET THE CONDITIONS MENTIONED IN THE FOOTNOTE					

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
NO STOCK OPTION MET THE CONDITIONS MENTIONED IN THE FOOTNOTE					

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
NO STOCK OPTION MET THE CONDITIONS MENTIONED IN THE FOOTNOTE					

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
POLYCAB INDIA LT	4905.15	0.7	26378	16720	1.6
BAJAJ AUTO LTD	7333.3	-4.9	25540	16919	1.5
HAVELLS INDIA	1407.1	-1.6	8470	6813	1.2
PETRONET LNG LTD	280.15	0.0	10018	8350	1.2
CITY UNION BANK	147.04	-1.5	3773	3210	1.2

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
POLYCAB INDIA LT	4905.15	0.7	14588	9288	1.6
BAJAJ AUTO LTD	7333.3	-4.9	15559	11233	1.4
HAVELLS INDIA	1407.1	-1.6	5315	4067	1.3
MANAPPURAM FINAN	197.58	-0.8	5371	4365	1.2
LTIMINDTREE LTD	4685	-3.1	3780	3285	1.2

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
COROMANDEL INTER	1611.7	-3.2	7341	2473	3.0
BAJAJ AUTO LTD	7333.3	-4.9	69403	26626	2.6
BATA INDIA LTD	1211.95	-2.1	12247	6137	2.0
HINDUSTAN PETRO	315.2	5.8	16637	8625	1.9
BALKRISHNA INDS	2526.9	-2.2	3950	2096	1.9

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
BAJAJ AUTO LTD	7333.3	-4.9	77288	18263	4.2
COROMANDEL INTER	1611.7	-3.2	6488	2025	3.2
GUJARAT GAS LTD	370.2	-0.5	8815	3078	2.9
BATA INDIA LTD	1211.95	-2.1	8144	3780	2.2
ASTRAL LTD	1306.85	-3.1	9406	4487	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	2600	1154400	21.2%	2145	2600	2709300	21.2%	INFY	1900	1505200	12.5%	1688	1600	856400	-5.2%
ADANIPTS	1100	1198000	4.0%	1058	1200	578800	13.4%	ITC	420	8929600	6.4%	395	400	2694400	1.3%
APOLLOHOSP	6800	125875	9.9%	6188	6000	68375	-3.0%	JSWSTEEL	1000	671625	2.7%	974	960	463050	-1.4%
ASIANPAINT	2500	589200	17.3%	2132	2100	247200	-1.5%	KOTAKBANK	2000	995600	4.8%	1908	1900	739600	-0.4%
AXISBANK	1050	2110625	4.8%	1002	1000	1605000	-0.2%	LT	3300	793650	2.7%	3213	3200	717000	-0.4%
BAJAJ-AUTO	8000	251475	9.1%	7333	7000	141075	-4.5%	LTIM	5000	242550	6.7%	4685	4500	70950	-3.9%
BAJAJFINSV	1900	1048000	6.1%	1790	1560	421500	-12.9%	M&M	3000	1325975	14.8%	2613	2500	663425	-4.3%
BAJFINANCE	9000	445375	4.8%	8586	8000	346625	-6.8%	MARUTI	13000	178500	11.9%	11616	11000	102150	-5.3%
BHARTIARTL	1700	1448750	7.9%	1575	1580	781375	0.3%	NESTLEIND	2300	195200	7.2%	2147	1960	145800	-8.7%
BPCL	250	2608200	0.0%	250	250	1580400	0.0%	NTPC	320	3595500	2.0%	314	380	2655000	21.1%
BRITANNIA	5000	75700	9.3%	4575	4100	73600	-10.4%	ONGC	250	2656500	10.2%	227	225	1842225	-0.8%
CIPLA	1500	417300	7.0%	1402	1240	594100	-11.5%	POWERGRID	260	1656000	2.4%	254	250	1911600	-1.6%
COALINDIA	450	2532600	23.7%	364	450	2699550	23.7%	RELIANCE	1300	6869500	11.9%	1162	1200	3509000	3.3%
DIVISLAB	6000	124400	8.7%	5518	4700	90500	-14.8%	SBLIFE	1500	375000	7.7%	1393	1400	226500	0.5%
DRREDDY	1200	643125	7.1%	1120	1100	368125	-1.8%	SBIN	800	6953250	11.7%	716	700	5643750	-2.2%
EICHERMOT	5000	214375	3.8%	4815	4800	198100	-0.3%	SUNPHARMA	1640	555100	4.7%	1567	1600	698600	2.1%
GRASIM	2400	262000	0.2%	2395	2300	177500	-4.0%	TATACONSUM	1100	434112	15.2%	955	880	307344	-7.8%
HCLTECH	1600	441350	4.2%	1536	1360	724850	-11.4%	TATAMOTORS	700	6877200	13.0%	619	600	2151600	-3.1%
HDFCBANK	1800	2606450	5.3%	1710	1700	3148200	-0.6%	TATASTEEL	150	34683000	7.7%	139	130	9102500	-6.7%
HDFCLIFE	620	1323300	0.6%	617	550	673200	-10.8%	TCS	4000	1279075	13.2%	3532	3500	606200	-0.9%
HEROMOTOCO	4000	425400	13.8%	3515	3500	149250	-0.4%	TECHM	1800	1111200	20.9%	1488	1500	430800	0.8%
HINDALCO	650	2634800	1.3%	642	620	1537200	-3.4%	TITAN	3200	431200	5.0%	3049	3000	262675	-1.6%
HINDUNILVR	2300	828300	6.6%	2157	2200	471900	2.0%	ULTRACEMCO	11000	166600	6.1%	10370	10000	74550	-3.6%
ICICIBANK	1300	1949500	7.4%	1210	1200	2870000	-0.9%	UPL	640	1848220	4.3%	613	600	653110	-2.2%
INDUSINDBK	1100	2007500	11.4%	988	1000	1033500	1.3%	WIPRO	300	4911000	7.1%	280	280	2367000	0.0%

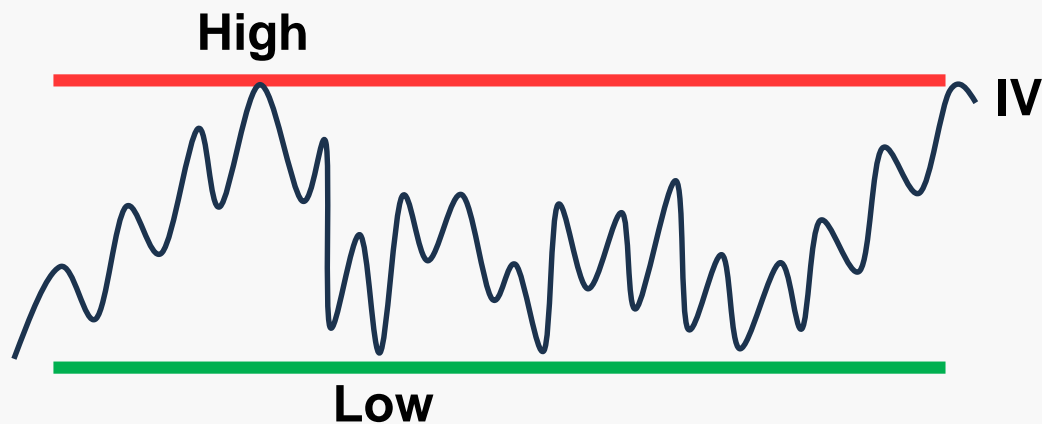
*If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green
If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike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

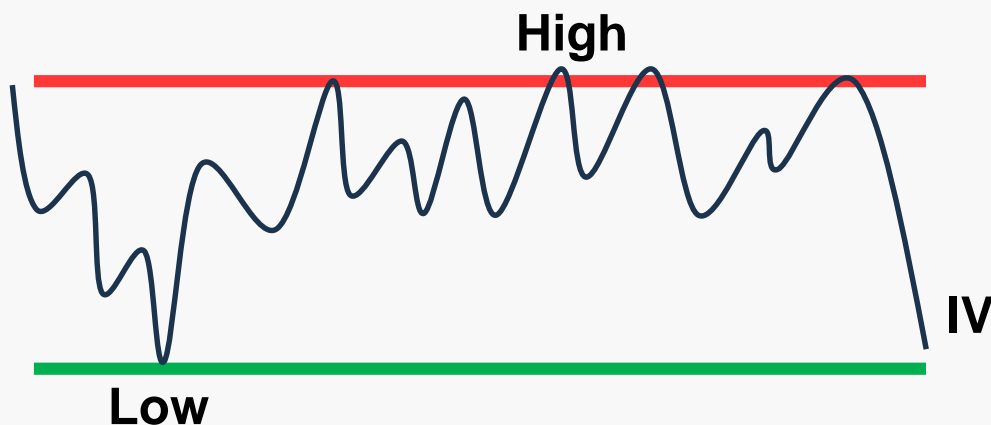
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

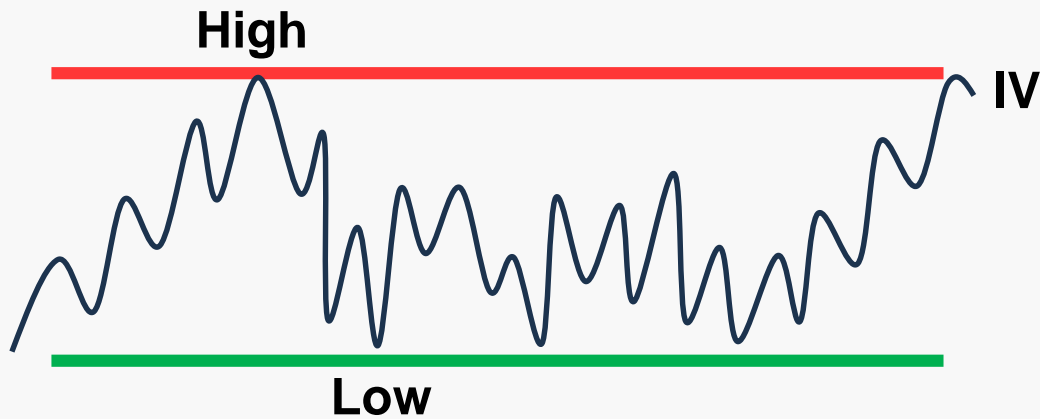


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

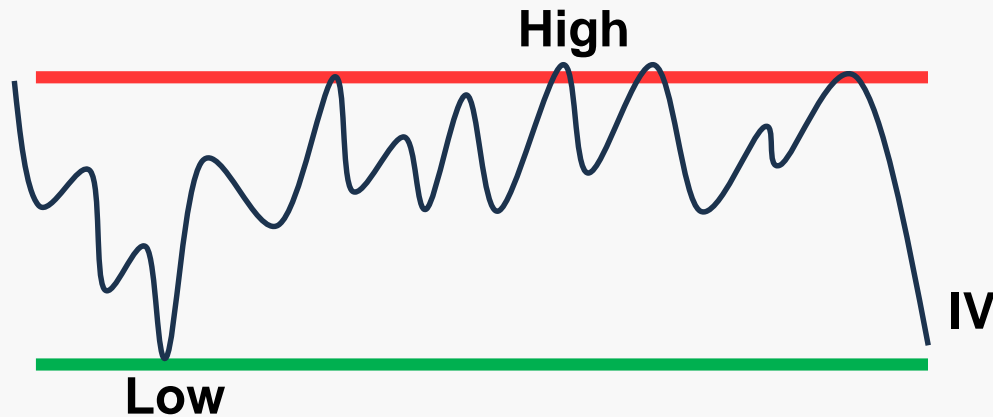


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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