



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,459	0.7% ▼
Open Interest (OI)	1,83,19,725	2.5% ▲
Change in OI (abs)	1,83,19,725	4,47,525 ▲
Premium / Discount (Abs)	78	23 ▲
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	50,234	0.2% ▼
Open interest (OI)	32,63,760	4.5% ▲
Change in OI (abs)	32,63,760	1,40,190 ▲
Premium / Discount (Abs)	253	57 ▲
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	14.45	0.8 ▲
Nifty ATM IV (%)	16.24	3.8 ▲
Bank Nifty ATM IV (%)	16.75	0.9 ▲
PCR (Nifty)	0.75	0.08 ▼
PCR (Bank Nifty)	0.83	0.02 ▼

The Long Ratio for the FII Index Futures **dropped** to 14.9%, against 16.0% recorded in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BERGEPAIN	1,16,23,920	13.1%	487.1	1.2%
IRCTC	1,65,79,500	4.6%	774.55	0.1%
ICICIBANK	10,61,38,900	1.7%	1267.5	0.5%
ESCORTS	10,34,100	1.3%	3308.55	1.0%
BHEL	8,75,64,750	1.3%	203.48	0.1%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DELHIVERY	1,25,69,050	22.3%	294.8	-7.2%
OIL	1,06,93,025	17.0%	399.4	-4.7%
PHOENIXLTD	5,79,250	15.3%	1623.5	-1.4%
MAXHEALTH	63,44,625	10.6%	1076.7	-5.9%
ATGL	49,94,100	8.2%	596.1	-4.0%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BRITANNIA	32,41,200	-6.0%	4931.1	1.0%
BATAINDIA	27,75,000	-0.9%	1343.95	0.5%
HINDUNILVR	1,36,80,000	-0.4%	2369.2	0.1%
INDIAMART	8,85,600	-0.3%	2187.95	0.9%
HCLTECH	1,93,76,350	-0.1%	1737.25	0.5%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CHAMBLFERT	79,28,700	-10.4%	547.5	-1.9%
CUB	2,51,75,000	-9.5%	172.37	-1.3%
ABBOTINDIA	63,160	-8.6%	29712.4	-0.5%
METROPOLIS	7,68,400	-8.4%	1801.85	-2.5%
JKCEMENT	5,80,750	-5.8%	4814	-1.6%

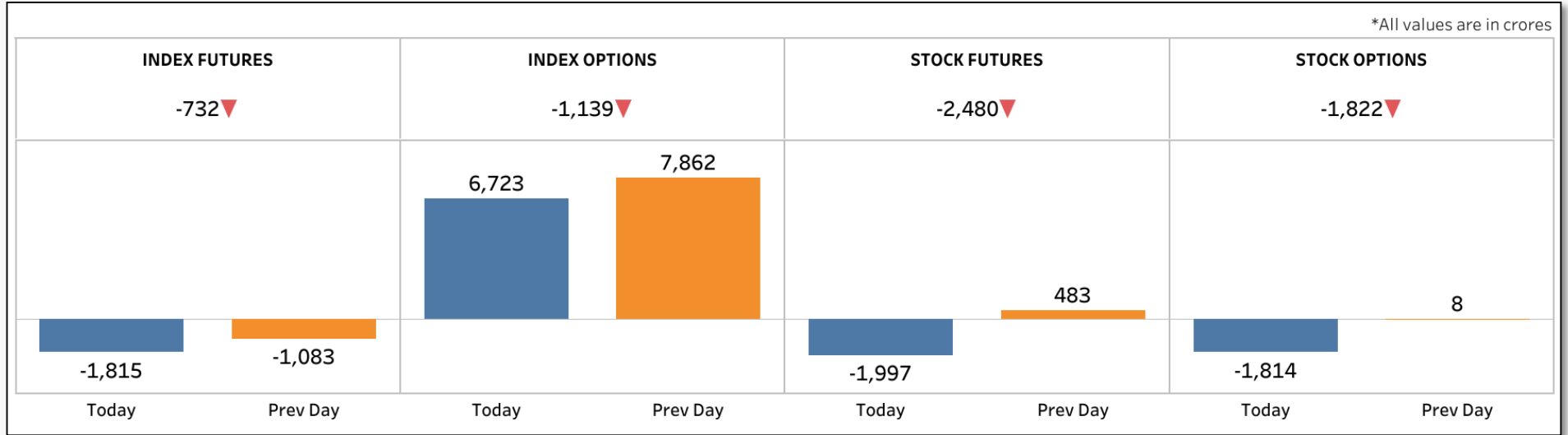
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Data by Participant

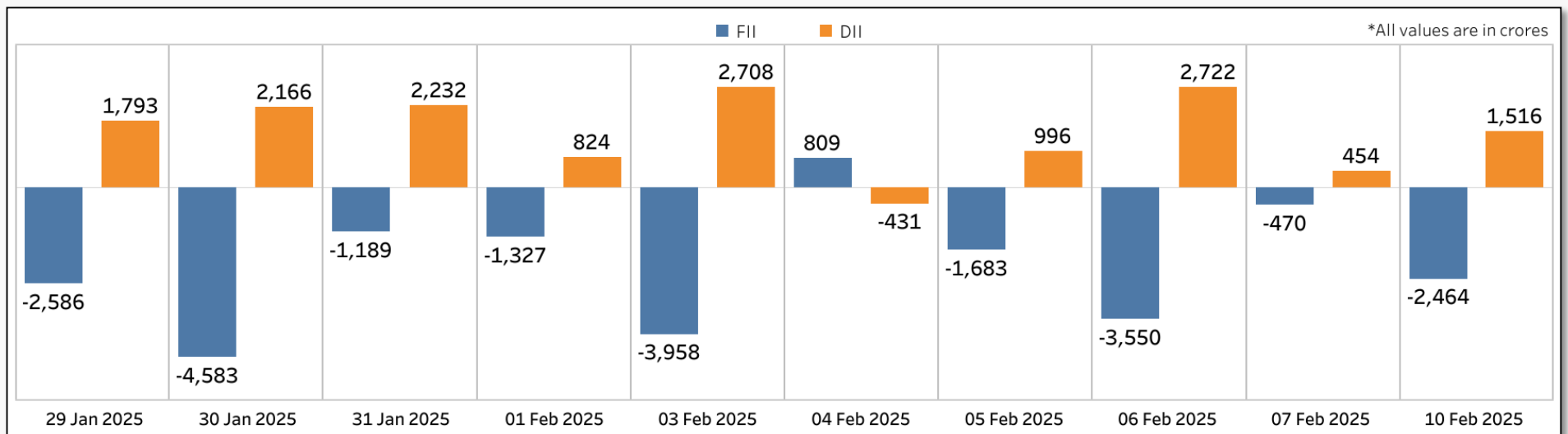
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-9,257 ▼	-4,685 ▼	3,520 ▲	-36,804 ▼	0	-932 ▼	3,795 ▲	-15,512 ▼
12,034	21,291	23,184	19,664	0	0	1,031	1,963
			2,211			-1,600	-5,395
	-11,018		-34,593				-9,888
	-6,333						-25,400
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-50,138	-150,767	124,883	1,108,774	70	8,490	18,620	-3,827,967
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
42,213 ▲	7,437 ▲	-7,449 ▼	17,348 ▲	-32,956 ▼	-1,820 ▼	135 ▲	34,968 ▲
1,259	6,387	20,278	2,930			39,810	39,675
						39,715	
	-1,050			19,663	3,600	5,420	4,747
				-13,293			
	-40,954						
		-61,395	-53,946				
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-62,737	140,301	-234,502	2,252,593	112,805	1,976	90,995	466,600
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day

Daily Net Open Interest Change

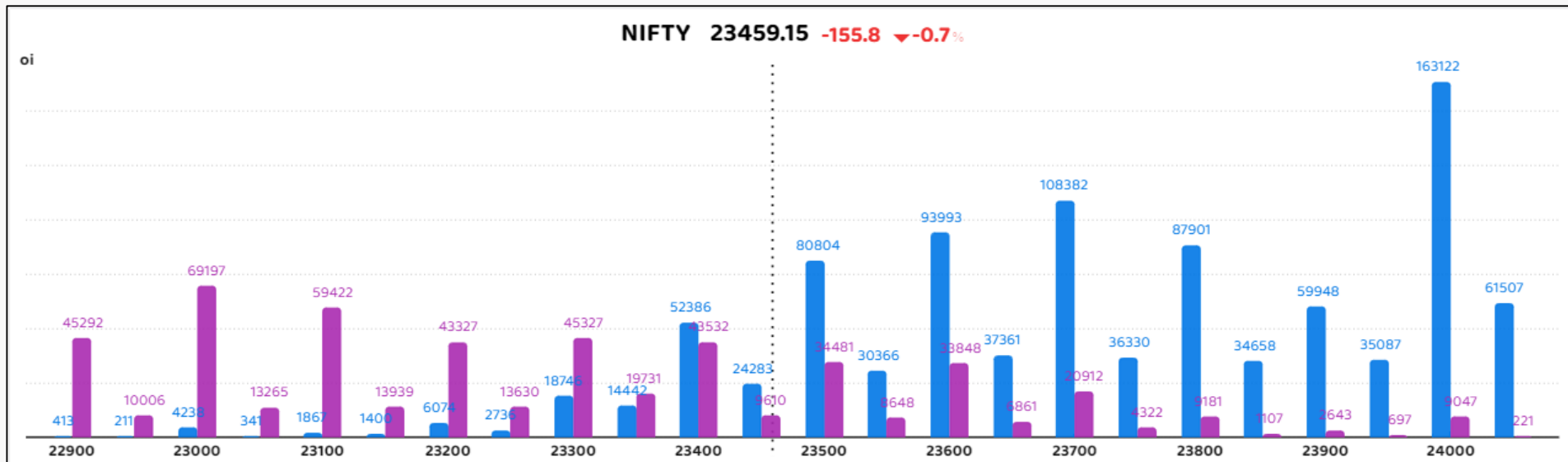


DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 24000 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.

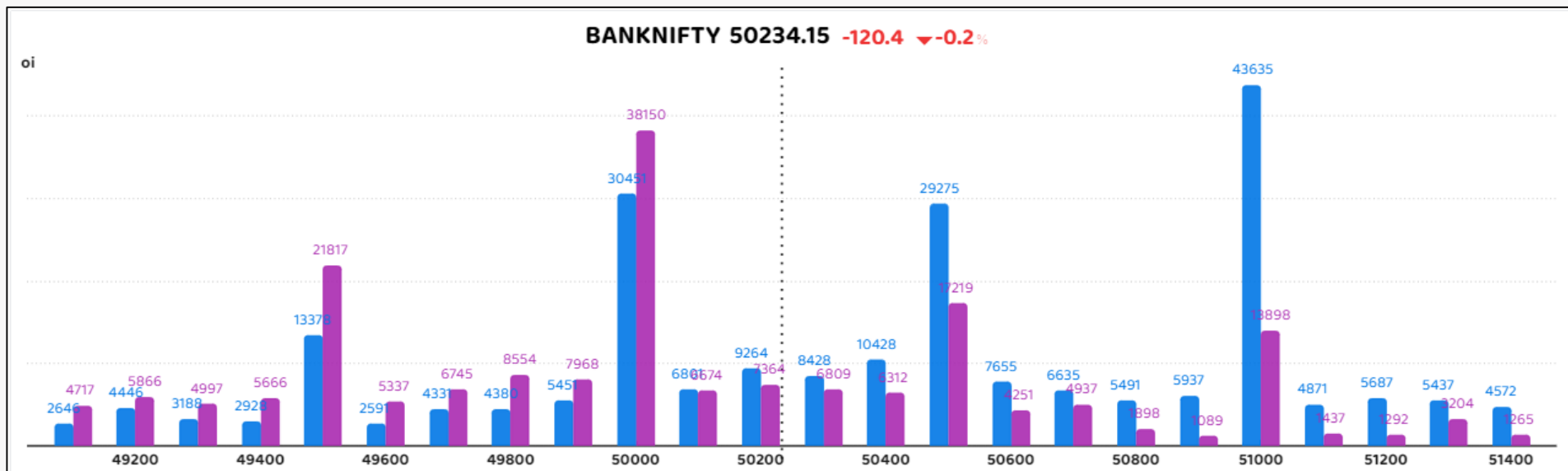
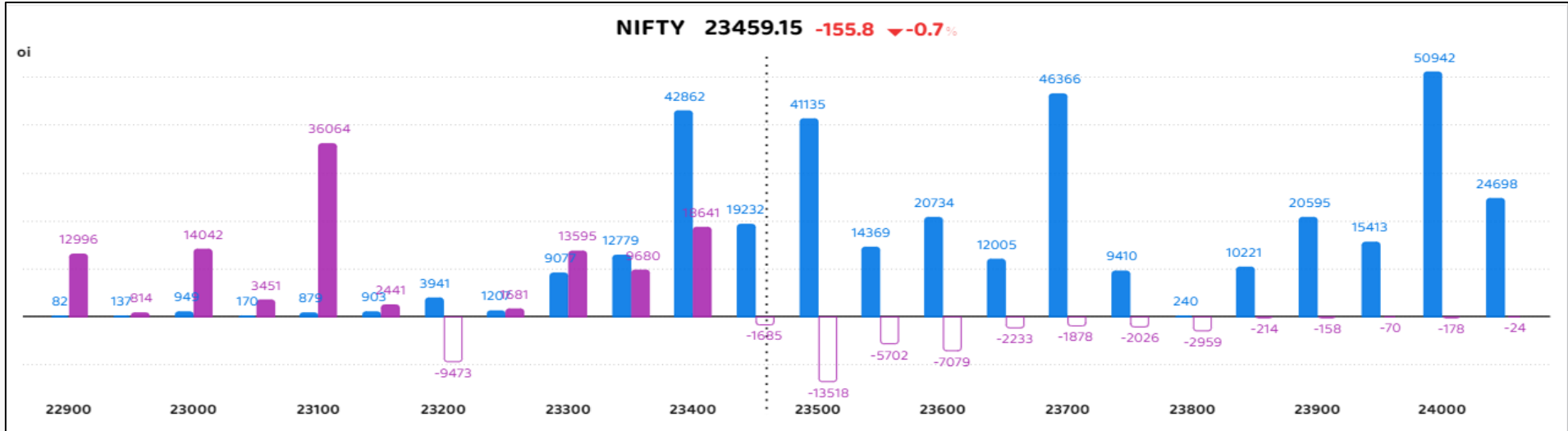


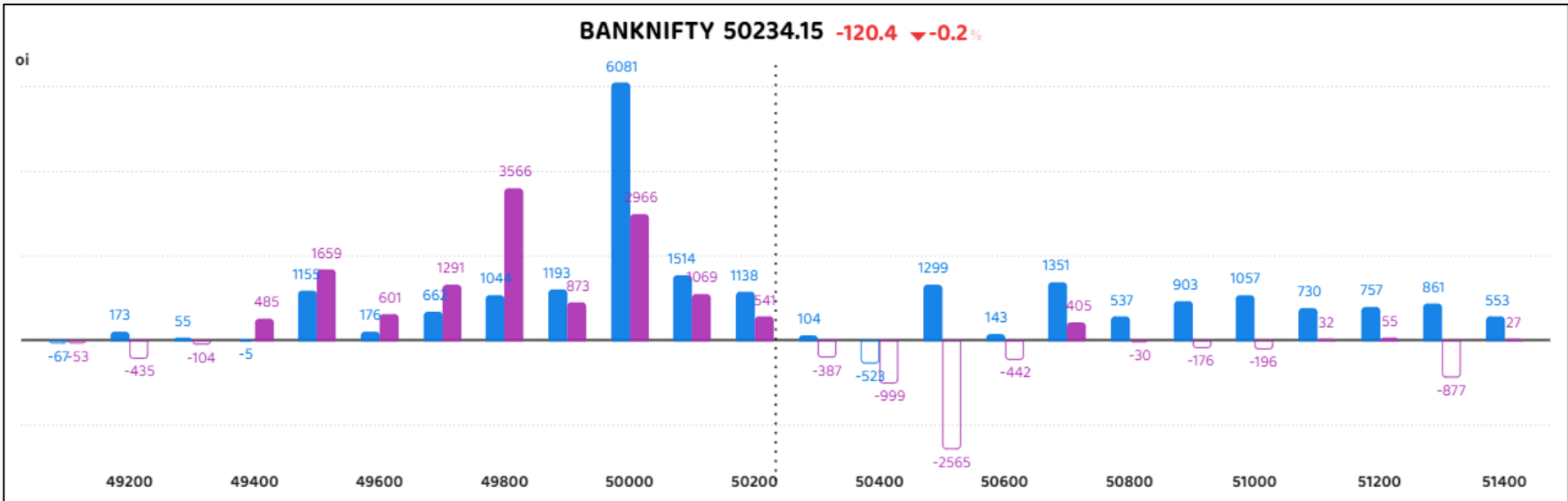
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24000 Call and the 23100 Put



For the Bank Nifty, the biggest open interest changes were seen at the 50000 Call & the 50500 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INDRAPRASTHA GAS	195.68	-1.6	53.2	55.4	20.3	93.8
BATA INDIA LTD	1341.15	0.5	35.1	39.2	13.4	83.9
UNITED BREWERIES	2055.45	0.3	41.2	47.4	13.6	81.5
DIXON TECHNOLOGI	14795.2	-2.4	41.8	51.5	1.8	80.5
MANAPPURAM FINAN	204.72	-1.9	51.3	64.2	2.7	79.1

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
TATA CONSUMER PR	1027.5	0.6	11.5	34.0	11.5	0.0
HDFC LIFE INSURA	635.7	0.0	22.1	80.6	19.6	4.1
ADANI PORTS AND	1144.2	-0.2	28.9	97.8	23.2	7.6
CIPLA LTD	1458.85	-0.9	22.4	61.3	18.0	10.2
TECH MAHINDRA LT	1699.05	0.4	23.0	35.8	21.2	11.8

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
IGL IS	195.68	-1.6	53.2	55.4	20.3	99.3
UBBL IS	2055.45	0.3	41.2	47.4	13.6	97.3
BATA IS	1341.15	0.5	35.1	39.2	13.4	96.8
IPCA IS	1447.95	-3.9	41.3	49.3	14.4	96.8
ABB IS	5580.5	-1.9	42.1	56.4	23.7	96.1

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
TATACONS IS	1027.5	0.6	11.5	34.0	11.5	0.0
BHARTI AIRTEL	1693.05	1.0	18.5	34.3	4.6	3.0
PIDI IS	2868.05	-0.1	17.9	33.7	13.3	4.4
MRF IS	111036.2	-1.6	15.1	36.7	8.9	4.4
TRP IS	3192.9	-2.0	18.8	45.4	12.0	5.2

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PAG IS	43654.75	1.6	25856	5056	5.1
BOS IS	27696.65	-1.2	2389	640	3.7
UNITDSPR IS	1419.5	-0.6	6992	2081	3.4
BHARAT FORGE CO	1134.8	-0.4	4670	1512	3.1
IGL IS	195.68	-1.6	6463	2221	2.9

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
DIVI IS	5938.8	-3.3	16875	27410	1.6
IPCA IS	1447.95	-3.9	1659	2248	1.4
EXID IS	371.7	-1.4	5457	6607	1.2
SUNTV IS	605.6	-4.1	13032	15106	1.2
GRASIM INDS LTD	2473.25	-0.6	17215	19560	1.1

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
TRENT LTD	5196.75	-4.7	73907	73907	100.0
GPL IS	2122.85	-3.4	20105	20105	100.0
KKC IS	2890.4	0.6	14584	15666	93.1
LARSEN & TOUBRO	3328.65	-0.2	71704	85207	84.2
ACEM IS	506.75	-1.2	19532	23282	83.9

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
LARSEN & TOUBRO	3328.65	-0.2	37276	37276	100.0
ABBOTT INDIA LTD	29683.4	-0.4	3447	3447	100.0
CUMMINS INDIA	2890.4	0.6	7845	7939	98.8
TRENT LTD	5196.75	-4.7	31868	33246	95.9
CHAMBAL FERTILIS	547.3	-1.5	4141	4416	93.8

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
NONE OF THE STOCKS MATCH THE CRITERIA MENTIONED IN THE FOOT NOTE					

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
NONE OF THE STOCKS MATCH THE CRITERIA MENTIONED IN THE FOOT NOTE					

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
ALKEM IS	4800.85	-6.8	43122	6762	6.4
PAG IS	43654.75	1.6	25856	10120	2.6
BRITANNIA INDS	4909.65	0.8	89516	39380	2.3
KKC IS	2890.4	0.6	42721	19500	2.2
MAHINDRA & MAHIN	3137.25	-1.9	159407	73002	2.2

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
MAHINDRA & MAHIN	3137.25	-1.9	101937	45812	2.2
GRASIM INDS LTD	2473.25	-0.6	19560	8891	2.2
EICHER MOTORS	5335.35	-0.7	23011	11503	2.0
BRITANNIA INDS	4909.65	0.8	39410	21748	1.8
JSW STEEL LTD	959.15	-2.2	21064	14196	1.5

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
ITC LTD	427.2	-0.8	63219	30068	2.1
BHARTI AIRTEL	1693.05	1.0	44029	22887	1.9
TITAN CO LTD	3327.45	-2.8	38723	21458	1.8
STATE BANK IND	736.8	-0.1	169337	95468	1.8
TRENT LTD	5196.75	-4.7	73907	43759	1.7

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
ITC LTD	427.2	-0.8	23053	13972	1.6
TRENT LTD	5196.75	-4.7	31868	20358	1.6
BHARTI AIRTEL	1693.05	1.0	21463	13967	1.5
MAHINDRA & MAHIN	3137.25	-1.9	26109	17422	1.5
STATE BANK IND	736.8	-0.1	83724	57685	1.5

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	1210500	22.2%	2291	2800	2615400	22.2%	INFY	1920	3870000	2.1%	1880	1800	1204000	-4.3%
ADANIPTS	1200	1572800	4.9%	1144	1200	722400	4.9%	ITC	450	14497600	5.3%	427	400	5118400	-6.4%
APOLLOHOSP	7000	184750	3.5%	6761	6000	128625	-11.3%	JSWSTEEL	1080	992250	12.6%	959	900	774900	-6.2%
ASIANPAINT	2400	1546600	5.7%	2270	2100	446400	-7.5%	KOTAKBANK	2000	2978400	2.0%	1960	1900	1021600	-3.1%
AXISBANK	1050	7811250	3.8%	1012	1000	2175625	-1.2%	LT	3600	1613850	8.2%	3329	3300	770250	-0.9%
BAJAJ-AUTO	10000	188700	12.6%	8881	9000	81525	1.3%	LTIM	6000	85800	3.5%	5798	5500	56700	-5.1%
BAJAJFINSV	1860	1899000	3.8%	1792	1700	628000	-5.2%	M&M	3300	1031450	5.2%	3137	3000	578200	-4.4%
BAJFINANCE	8500	529500	2.6%	8287	8000	413750	-3.5%	MARUTI	13200	601650	2.3%	12901	12000	366750	-7.0%
BHARTIARTL	1700	4391850	0.4%	1693	1600	1590300	-5.5%	NESTLEIND	2400	736200	8.1%	2221	2000	257200	-10.0%
BPCL	270	9964800	3.9%	260	250	1706400	-3.8%	NTPC	340	10573500	9.5%	311	390	3774000	25.6%
BRITANNIA	5000	364000	1.8%	4910	4500	123500	-8.3%	ONGC	270	12117875	11.4%	242	240	3172400	-1.0%
CIPLA	1500	1617200	2.8%	1459	1260	319800	-13.6%	POWERGRID	300	8528400	11.6%	269	240	1866600	-10.7%
COALINDIA	400	5429550	8.0%	371	450	3093300	21.5%	RELIANCE	1300	11842000	3.7%	1254	1200	3613500	-4.3%
DIVISLAB	6200	200400	4.4%	5939	5400	137200	-9.1%	SBLIFE	1460	703875	0.8%	1448	1460	291750	0.8%
DRREDDY	1240	1336250	1.6%	1221	1200	487500	-1.7%	SBIN	800	23535750	8.6%	737	700	6390750	-5.0%
EICHERMOT	5500	287175	3.1%	5335	5200	194950	-2.5%	SUNPHARMA	1800	1837850	3.9%	1732	1700	590450	-1.9%
GRASIM	2500	360250	1.1%	2473	2460	264000	-0.5%	TATACONSUM	1100	593256	7.1%	1028	900	685824	-12.4%
HCLTECH	1760	1108100	1.5%	1734	1540	554750	-11.2%	TATAMOTORS	800	10885050	14.9%	696	700	3847800	0.6%
HDFCBANK	1760	9814200	2.6%	1716	1700	2558050	-0.9%	TATASTEEL	150	33627000	11.9%	134	120	12661000	-10.5%
HDFCLIFE	700	2794000	10.1%	636	540	856900	-15.1%	TCS	4200	972650	4.0%	4037	4000	550550	-0.9%
HEROMOTOCO	4300	624450	2.5%	4196	4200	318450	0.1%	TECHM	1860	594000	9.5%	1699	1600	494400	-5.8%
HINDALCO	610	2619400	2.3%	596	600	1950200	0.7%	TITAN	3600	1112475	8.2%	3327	3200	639625	-3.8%
HINDUNILVR	2500	1590000	5.9%	2361	2400	436500	1.6%	ULTRACEMCO	12000	216900	4.1%	11532	11000	98750	-4.6%
ICICIBANK	1300	5817700	3.0%	1263	1200	2147600	-5.0%	UPL	640	1346870	0.8%	635	600	1636840	-5.5%
INDUSINDBK	1100	4872500	3.0%	1068	1000	1195000	-6.4%	WIPRO	320	3369000	0.3%	319	300	3975000	-6.0%

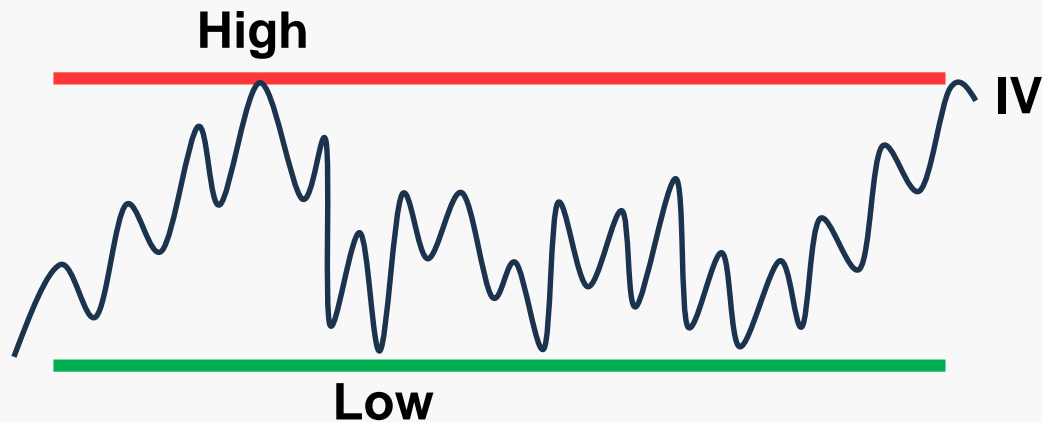
If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green
 If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike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

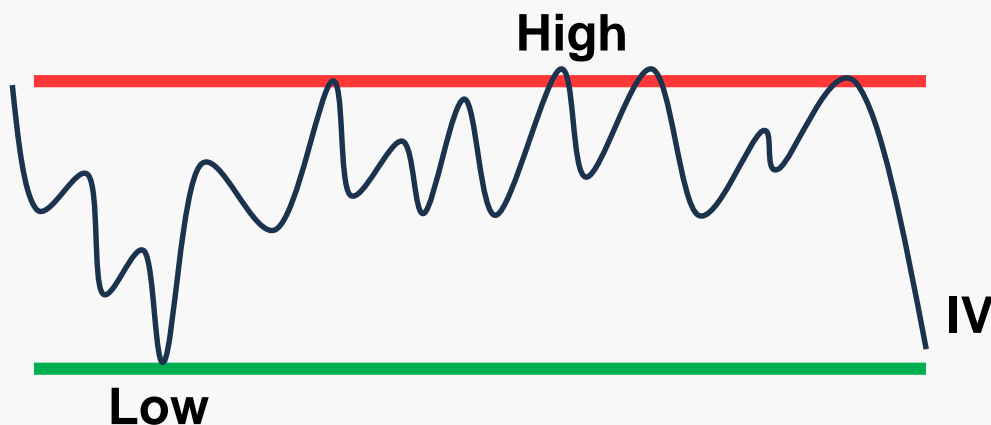
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

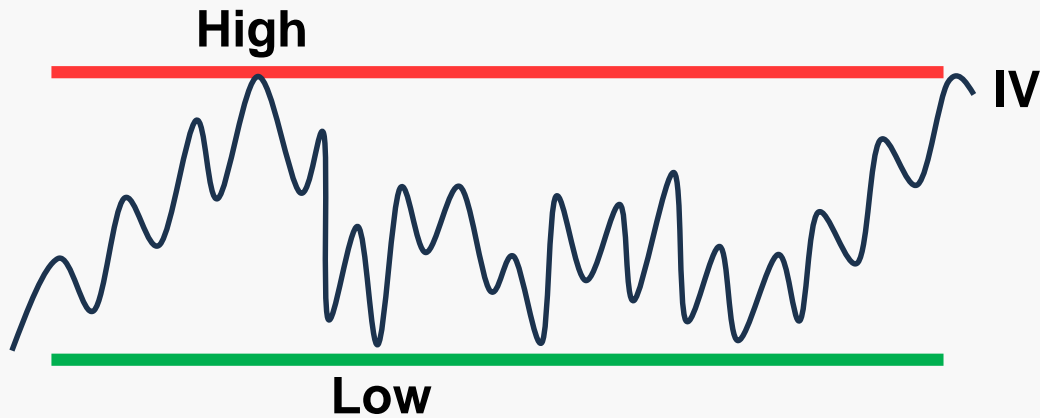


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

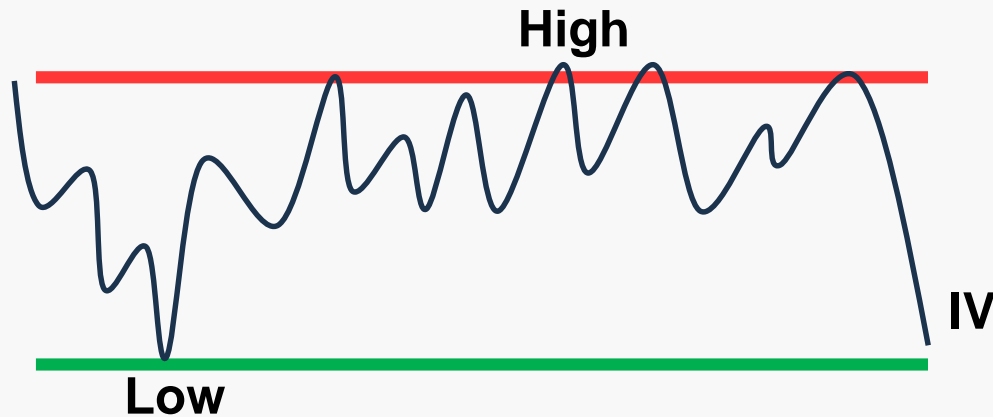


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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