



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	24,652	0.7%▼
Open Interest (OI)	1,88,30,700	1.7%▲
Change in OI (abs)	1,88,30,700	3,21,450▲
Premium / Discount (Abs)	43	24▲
<b>Inference</b>	<b>Short Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	55,068	0.1%▼
Open interest (OI)	21,71,830	0.7%▼
Change in OI (abs)	21,71,830	15,550▼
Premium / Discount (Abs)	127	60▲
<b>Inference</b>	<b>Long Unwinding</b>	

## Volatility Insights

	Value	Change
India VIX Index	17.26	0.29▼
Nifty ATM IV (%)	14.84	0.8▼
Bank Nifty ATM IV (%)	15.73	1.0▼
PCR (Nifty)	0.94	0.13▲
PCR (Bank Nifty)	0.78	0.01▼

The Long Ratio for FII Index Futures **drop** at 31.9%, **down** from 37.4% in the **last session..**

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NATIONALUM	5,98,72,500	6.3%	185.29	1.9%
NMDC	21,93,21,000	6.0%	71.66	2.1%
MUTHOOTFIN	61,69,625	5.4%	2103.6	0.4%
SHREECEM	3,23,975	4.6%	31365	0.0%
CONCOR	2,08,56,000	3.5%	739.05	0.9%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ABFRL	2,42,63,200	41.8%	90.2	-66.4%
COLPAL	54,59,800	15.2%	2465.4	-7.2%
DIXON	21,12,950	10.2%	15172	-3.0%
BSE	42,68,750	7.8%	7021.5	-4.2%
POLYCAB	22,93,250	7.6%	5967.5	-1.6%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ASTRAL	66,51,598	-10.4%	1446.4	4.7%
APOLLOTYRE	47,34,500	-5.8%	492.2	0.8%
AARTIIND	1,25,11,625	-2.7%	470.2	0.2%
MRF	55,040	-2.5%	142535	0.1%
INDUSINDBK	4,12,62,000	-2.2%	785.9	1.7%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DEEPAKNTR	7,86,300	-5.2%	2077.8	-0.8%
ITC	16,86,27,200	-3.8%	422.2	-2.2%
ESCORTS	10,42,950	-3.5%	3515.2	-0.3%
BPCL	5,25,23,250	-2.3%	313.45	-1.0%
PETRONET	3,31,75,800	-2.0%	320.2	-0.5%

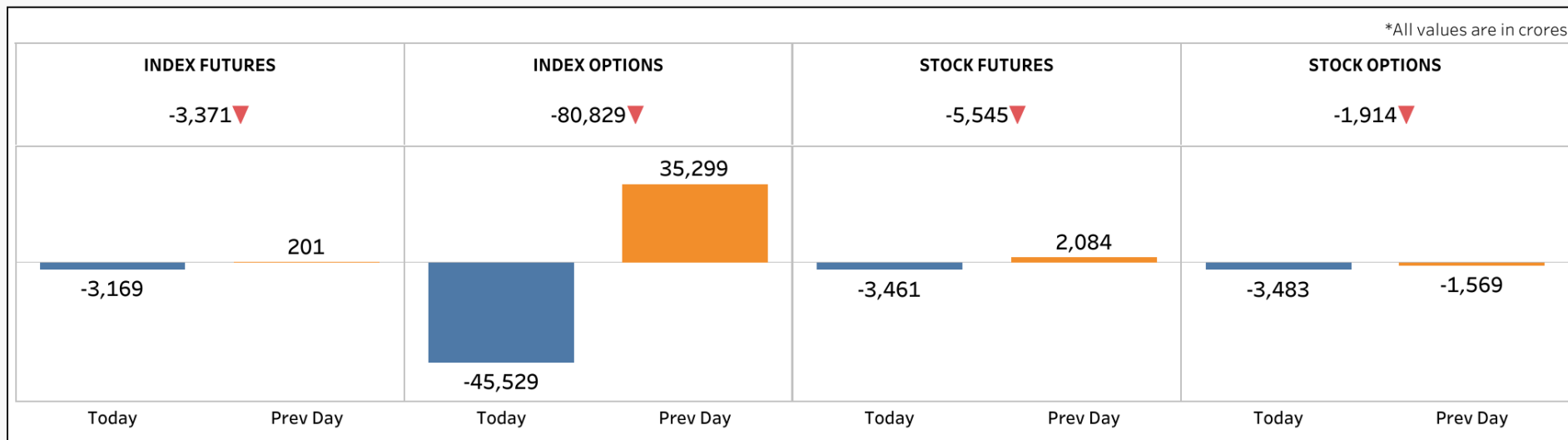
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Trends by Participant

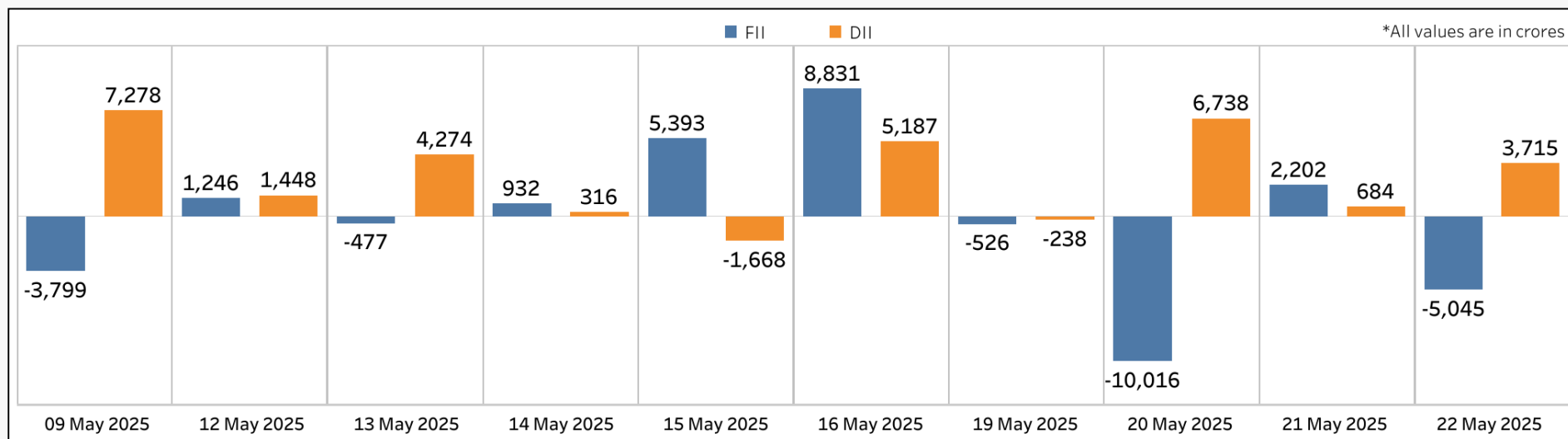
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-220,301 ▼	-18,879 ▼	-136,022 ▼	-86,325 ▼	0	13,675 ▲	-817 ▼	-23,613 ▼
107,200	1,159	83,317	26,883	0	-3,082	817	-2,951
-113,101	-17,720	-52,705	-59,442		-16,757		-26,564
Net O/S 166,819 Today Prev Day	Net O/S -55,309 Today Prev Day	Net O/S 230,143 Today Prev Day	Net O/S 1,739,034 Today Prev Day	Net O/S 70 Today Prev Day	Net O/S -3,157 Today Prev Day	Net O/S 48,254 Today Prev Day	Net O/S -3,846,946 Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
448,396 ▲	12,923 ▲	147,371 ▲	77,576 ▲	-228,095 ▼	-7,719 ▼	-10,533 ▼	32,362 ▲
258,883	21,270	55,968	56,699	82,312	7,251	7,270	29,307
-189,513	8,347	-91,403	-20,877	-145,783	-468	-3,263	-3,055
Net O/S -156,157 Today Prev Day	Net O/S 64,840 Today Prev Day	Net O/S -284,070 Today Prev Day	Net O/S 1,798,060 Today Prev Day	Net O/S -10,733 Today Prev Day	Net O/S -6,374 Today Prev Day	Net O/S 5,673 Today Prev Day	Net O/S 309,852 Today Prev Day

## Daily Net Open Interest Change

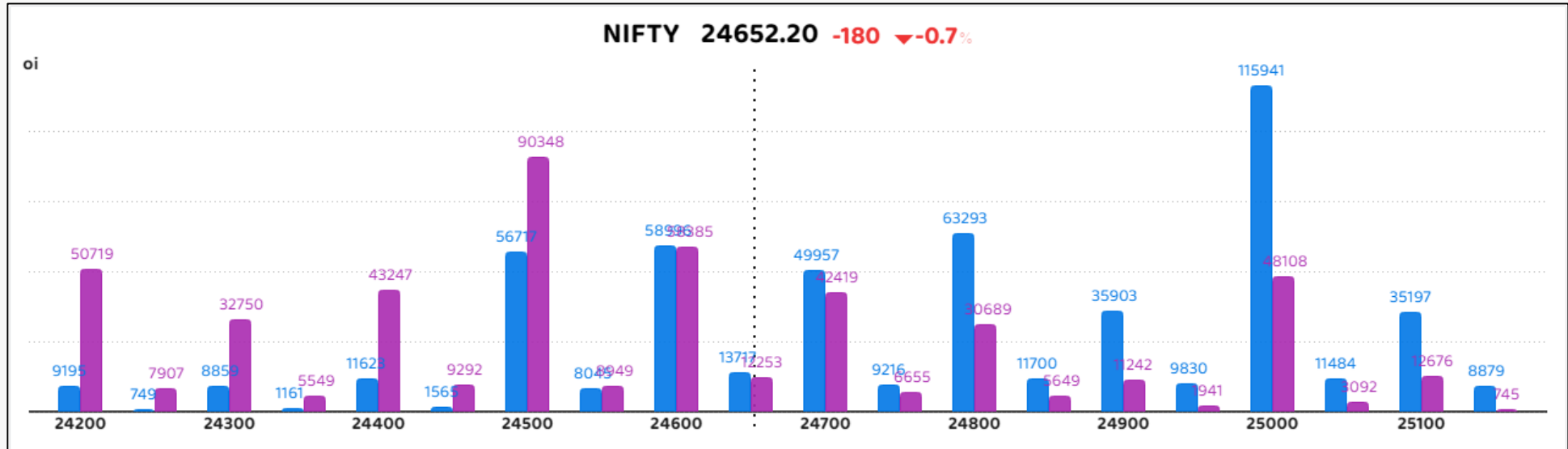


## DII and FII Daily Cash Market Flows



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

Call  Put 



For the Nifty, the 25,000 Call and the 24,500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 56,000 Call and the 55,000 Put saw the most amount of open interest.

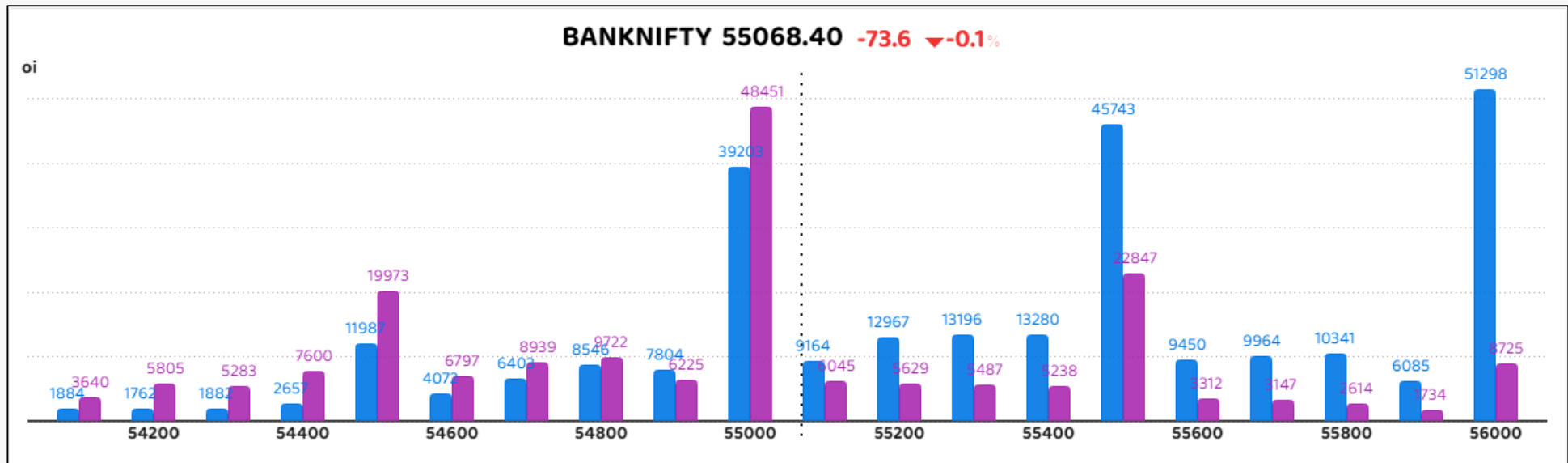
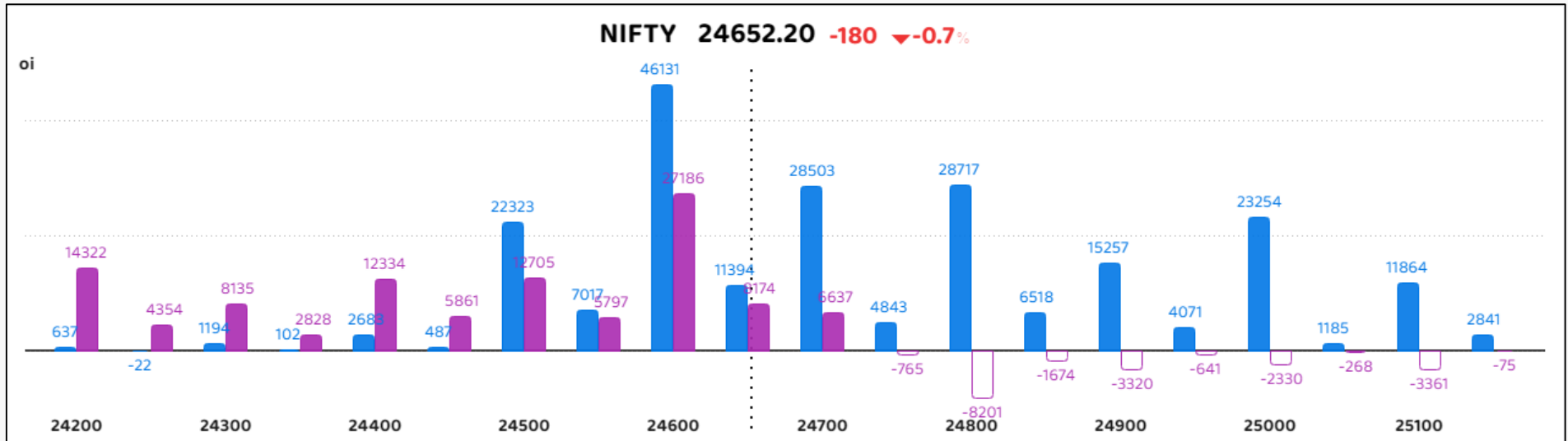


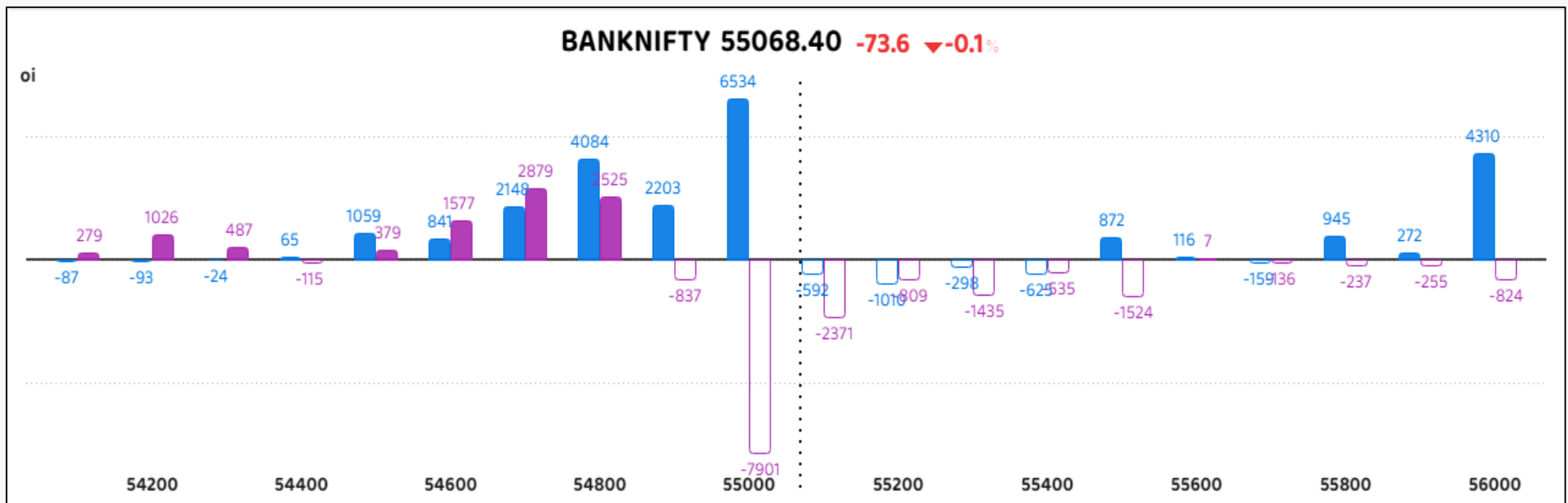
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,600 Call and the 24,500 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,000 Call & the 55,000 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
DEEPAK NITRITE	2070.8	-0.9	50.0	50.0	21.4	100.0
ADITYA BIRLA FAS	89.85	-8.3	60.3	66.6	9.9	89.0
ASTRAL LTD	1442.4	4.7	36.1	42.9	2.9	83.2
BAJAJ AUTO LTD	8733.5	0.5	30.4	36.4	2.1	82.3
TITAGARH RAIL SY	903.3	-0.1	58.0	63.9	35.7	79.0

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ADANI GREEN ENER	985.85	-1.1	46.4	74.3	45.1	4.4
IIFL FINANCE LTD	413.95	0.2	38.9	73.1	36.9	5.6
INDIAN RENEWABLE	170.7	-0.9	44.4	69.2	42.7	6.5
BANK OF BARODA	241.23	0.0	27.5	66.9	24.3	7.6
YES BANK LTD	20.97	0.0	31.6	55.3	29.4	8.7

## Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
DEEPAK NITRITE	2070.8	-0.9	50.0	50.0	21.4	100.0
ADITYA BIRLA FAS	89.85	-8.3	60.3	66.6	9.9	99.5
INFO EDGE	1461	-1.0	43.8	54.0	23.7	96.6
RBL BANK LTD	207.89	0.0	59.2	79.2	13.3	96.4
PI INDUSTRIES	3644.4	-1.8	35.8	43.0	18.3	95.7

## Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MANAPPURAM FINAN	229.66	0.7	10.3	64.2	2.7	2.3
YES BANK LTD	20.97	0.0	31.6	55.3	29.4	3.5
TITAN CO LTD	3541	-1.1	20.2	33.5	2.3	5.0
LAURUS LABS LTD	590.65	-1.1	28.4	53.2	16.1	5.9
ADANI GREEN ENER	985.85	-1.1	46.4	74.3	45.1	5.9

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
TUBE INVESTMENTS	2984.9	-0.6	9299	1479	6.3
ADANI ENERGY SOL	879	0.8	12788	2449	5.2
TORRENT POWER LT	1394.6	-0.3	6417	1290	5.0
PATANJALI FOODS	1711.3	-0.8	8498	1938	4.4
YES BANK LTD	20.97	0.0	12137	3130	3.9

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
NCC LTD	234.17	0.3	5707	20066	3.5
AARTI INDUS LTD	468.85	0.0	6210	12689	2.0
PRESTIGE ESTATES	1419.7	-0.9	4537	7900	1.7
BSE LTD	2332.17	-4.2	480612	650526	1.4
OIL INDIA LTD	418.35	-1.9	13160	16771	1.3

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
SOLAR INDUSTRIES	15008	5.7	6009	6009	100.0
VARUN BEVERAGES	469.55	-2.0	30164	30164	100.0
CHAMBAL FERTILIS	591.1	-2.1	15584	15584	100.0
HFCL LTD	84.5	-0.7	11002	11002	100.0
SUN PHARMA INDU	1718.7	-0.8	39001	39114	99.7

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
IIFL FINANCE LTD	414.0	0.2	4624	4624	100.0
INTERGLOBE AVIAT	5503.0	0.8	20744	20744	100.0
SOLAR INDUSTRIES	15008.0	5.7	7491	7491	100.0
BSE LTD	6996.5	-4.2	132348	132348	100.0
PRESTIGE ESTATES	1419.7	-0.9	4966	4966	100.0

## Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
SOLAR INDUSTRIES	15008	5.7	83663	83663	100.0
ASTRAL LTD	1442.4	4.7	103094	103094	100.0
COLGATE PALMOLIV	2487.1	-6.5	67054	67054	100.0

## Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
SOLAR INDUSTRIES	15008	5.7	28748	28748	100.0
BSE LTD	6996.5	-4.2	650526	650526	100.0
OIL INDIA LTD	418.35	-1.9	16771	16771	100.0
COLGATE PALMOLIV	2487.1	-6.5	56687	56687	100.0
INDUSIND BANK	785	2.0	417112	417112	100.0

## Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
DIXON TECHNOLOGI	15170	-2.8	89829	28307	3.2
COLGATE PALMOLIV	2487.1	-6.5	14526	5107	2.8
TORRENT PHARMA	3212	-2.3	5854	2202	2.7
SOLAR INDUSTRIES	15008	5.7	6009	2283	2.6
PI INDUSTRIES	3644.4	-1.8	8691	3616	2.4

## Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
SOLAR INDUSTRIES	15008	5.7	7491	1702	4.4
NCC LTD	234.17	0.3	10232	3903	2.6
COLGATE PALMOLIV	2487.1	-6.5	7732	3460	2.2
INDUSIND BANK	785	2.0	68639	32619	2.1
SIEMENS LTD	3304.6	0.4	17284	8348	2.1

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
COLGATE PALMOLIV	2487.1	-6.5	67054	7961	8.4
ASTRAL LTD	1442.4	4.7	103094	16184	6.4
INTERGLOBE AVIAT	5503	0.8	161075	25371	6.3
INDUSIND BANK	785	2.0	357654	63745	5.6
NATIONAL ALUMIN	184.95	1.8	60768	13122	4.6

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SOLAR INDUSTRIES	15008	5.7	7491	1702	4.4
NCC LTD	234.17	0.3	10232	3903	2.6
COLGATE PALMOLIV	2487.1	-6.5	7732	3460	2.2
INDUSIND BANK	785	2.0	68639	32619	2.1
SIEMENS LTD	3304.6	0.4	17284	8348	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	1740000	4.5%	2488	2600	950100	4.5%	ITC	430	10996800	0.9%	426	430	4011200	0.9%
ADANIPTS	1400	2186000	2.1%	1371	1400	754400	2.1%	JIOFIN	300	6390450	9.3%	275	250	3519450	-8.9%
APOLLOHOSP	7200	182750	3.5%	6955	6150	89500	-11.6%	JSWSTEEL	1050	870750	4.4%	1006	950	888300	-5.5%
ASIANPAINT	2500	1105200	8.7%	2299	2300	471400	0.0%	KOTAKBANK	2200	1808800	6.5%	2066	1860	620800	-10.0%
AXISBANK	1220	3234375	2.7%	1189	1180	1486875	-0.7%	LT	3600	902850	1.4%	3551	3600	540750	1.4%
BAJAJ-AUTO	8800	216075	0.8%	8734	8500	104775	-2.7%	M&M	3200	1303575	6.4%	3006	3000	554400	-0.2%
BAJAJFINSV	2100	2479000	4.9%	2001	2000	596000	0.0%	MARUTI	13000	453200	4.5%	12445	12000	249950	-3.6%
BAJFINANCE	10000	795375	9.4%	9139	9000	595250	-1.5%	NESTLEIND	2500	753000	5.9%	2362	2360	118600	-0.1%
BEL	390	12414600	1.7%	383	350	8105400	-8.7%	NTPC	370	11308500	8.4%	341	345	3117000	1.1%
BHARTIARTL	1900	5112900	3.7%	1831	1800	1520950	-1.7%	ONGC	250	12425875	3.4%	242	240	4136825	-0.7%
CIPLA	1600	1772875	9.0%	1469	1480	473525	0.8%	POWERGRID	310	4919400	6.6%	291	290	1602000	-0.3%
COALINDIA	410	5198550	2.8%	399	400	2333100	0.3%	RELIANCE	1450	7616500	2.9%	1409	1300	4163500	-7.8%
DRREDDY	1240	1858125	1.5%	1222	1150	676250	-5.9%	SBILIFE	1780	1676250	1.2%	1759	1720	405000	-2.2%
EICHERMOT	5600	375025	4.0%	5387	4500	134225	-16.5%	SBIN	800	14220750	1.9%	785	800	4198500	1.9%
ETERNAL	240	10534000	4.8%	229	230	6462000	0.4%	SHRIRAMFIN	700	2214000	7.7%	650	600	1612500	-7.7%
GRASIM	3120	319000	16.7%	2675	2600	178750	-2.8%	SUNPHARMA	1900	2189950	10.5%	1719	1700	750750	-1.1%
HCLTECH	1700	1537550	4.1%	1633	1200	688450	-26.5%	TATACONSUM	1200	1252632	6.5%	1127	1100	443688	-2.4%
HDFCBANK	2000	5875100	4.2%	1920	1800	2175800	-6.2%	TATAMOTORS	800	6794700	11.5%	717	700	3034350	-2.4%
HDFCLIFE	800	2281400	5.8%	756	720	1662100	-4.7%	TATASTEEL	160	23298000	-0.8%	161	155	14173500	-3.9%
HEROMOTOCO	4500	423000	5.2%	4276	4100	250800	-4.1%	TCS	3600	1094450	3.5%	3477	3400	539000	-2.2%
HINDALCO	700	3994200	7.8%	650	650	1201200	0.1%	TECHM	1600	900600	2.2%	1566	1500	438600	-4.2%
HINDUNILVR	2400	1509000	3.0%	2331	2400	480900	3.0%	TITAN	3600	274925	1.7%	3541	3500	292425	-1.2%
ICICIBANK	1460	4418400	1.2%	1442	1400	2135000	-2.9%	TRENT	6000	515700	12.3%	5342	5100	241400	-4.5%
INDUSINDBK	850	2923500	8.3%	785	700	4541000	-10.8%	ULTRACEMCO	13000	236300	11.3%	11680	10000	89400	-14.4%
INFY	1600	3875600	3.4%	1548	1500	1295200	-3.1%	WIPRO	300	10350000	22.0%	246	250	3219000	1.7%

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

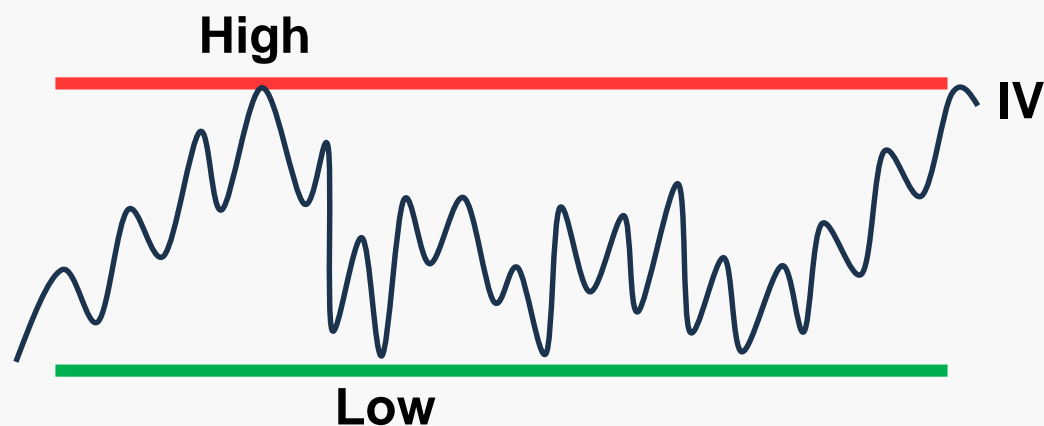
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

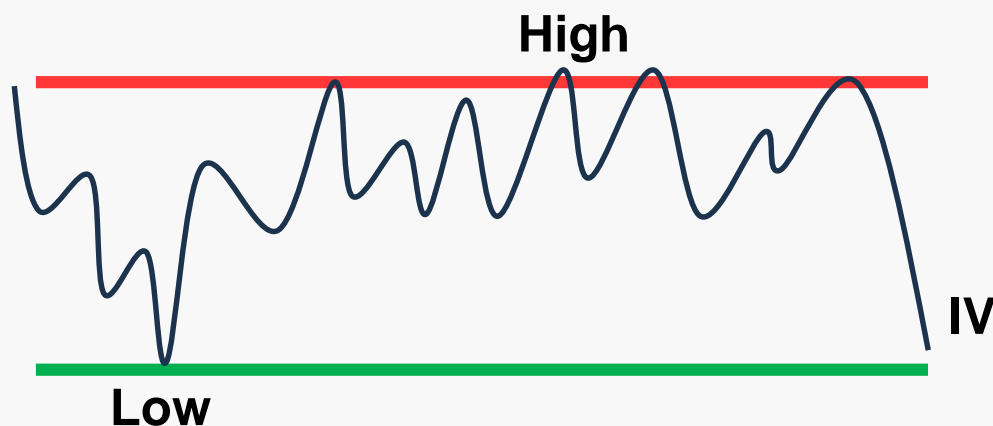
*\*ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

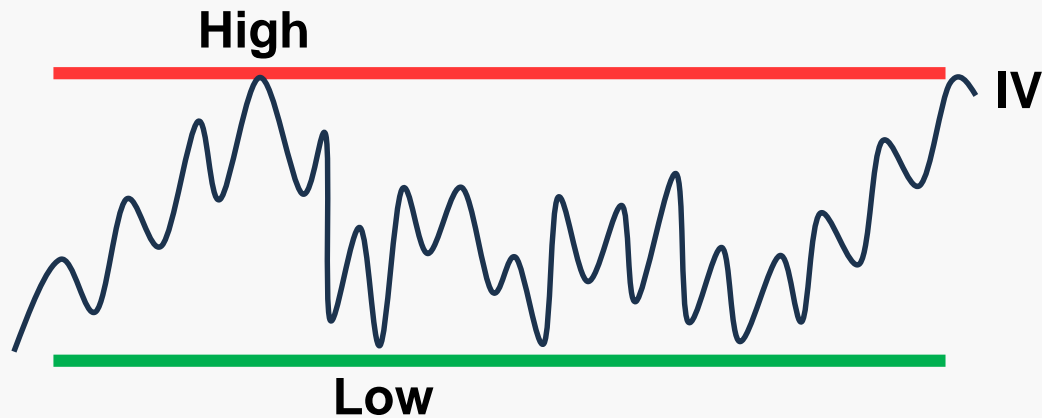


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

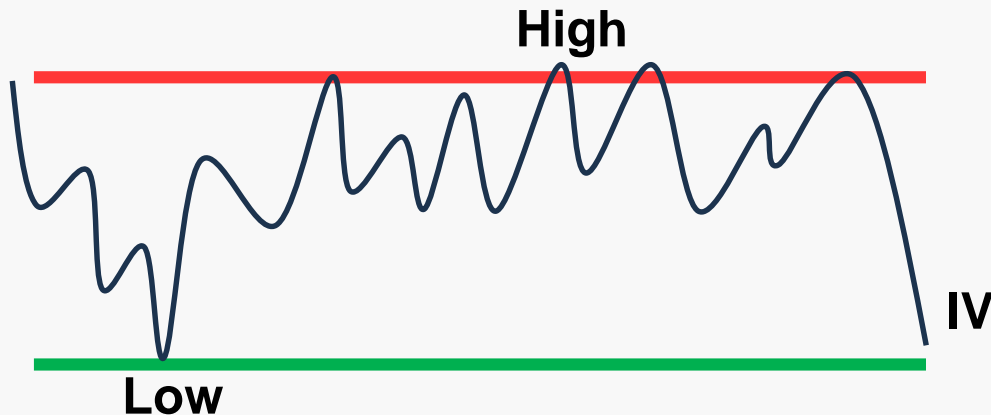


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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Compliance Officer Details: Name – **Mr. Rajiv Kejriwal**, Tel No. – 022-68555574, Email id – [compliance.officer@axisdirect.in](mailto:compliance.officer@axisdirect.in);

Registered Office Address – Axis Securities Limited, Unit No.002, Building- A, Agastya Corporate Park, Piramal Realty, Kamani Junction, Kurla (W), Mumbai – 400070.

Administrative office address: Aurum Q Parc, Q2 Building, Unit No. 1001, 10th Floor, Level – 6, Plot No. 4/1 TTC, Thane – Belapur Road, Ghansoli, Navi Mumbai, Pin Code – 400710.

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Sr. No	Name	Designation	E-mail
1	Rajesh Palviya	SVP Research (Head Technical & Derivatives)	rajesh.palviya@axissecurities.in
2	Hemang Gor	Derivative Analyst	hemang.gor@axissecurities.in
3	Rahil Vora	Derivative Analyst	rahil.vora@axissecurities.in