



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	24,968	0.6% ▼
Open Interest (OI)	1,92,08,100	3.8% ▲
Change in OI (abs)	1,92,08,100	6,99,825 ▲
Premium / Discount (Abs)	77	22 ▲
<b>Inference</b>	<b>Short Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	55,152	0.2% ▼
Open interest (OI)	24,95,080	8.6% ▲
Change in OI (abs)	24,95,080	1,96,490 ▲
Premium / Discount (Abs)	176	45 ▲
<b>Inference</b>	<b>Short Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	10.78	0.26 ▲
Nifty ATM IV (%)	8.42	0.2 ▲
Bank Nifty ATM IV (%)	9.77	0.1 ▲
PCR (Nifty)	0.68	0.19 ▼
PCR (Bank Nifty)	0.82	0.03 ▼

The FII Long Ratio in Index Futures **jump** to 15.6 %, **up** from 14.5 % in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
AUBANK	2,71,02,000	10.0%	742	0.8%
KEI	12,21,500	6.4%	4157.5	1.9%
VEDL	9,49,91,150	4.7%	463	3.0%
BHARTIARTL	4,84,98,925	3.8%	1940.4	0.2%
HINDALCO	5,37,43,200	3.4%	748.15	0.8%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ASIANPAINT	1,36,95,750	9.8%	2396.6	-2.4%
TCS	3,19,00,225	9.3%	2968.3	-2.3%
LTF	4,84,70,706	6.6%	244.61	-1.3%
TRENT	94,98,700	6.0%	4749	-3.3%
TVSMOTOR	1,02,18,250	5.2%	3416.3	-1.4%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
HEROMOTOCO	61,67,400	-13.6%	5347.5	1.3%
INDIANB	70,90,000	-9.7%	712.55	0.3%
BAJAJ-AUTO	35,86,350	-9.5%	8817	0.1%
SBICARD	1,73,57,600	-8.0%	883.3	0.2%
PNBHousing	1,58,05,400	-7.0%	906.9	2.0%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CDSL	92,23,550	-12.5%	1499.2	-0.9%
GODREJCP	1,22,44,500	-12.3%	1180	-0.4%
RVNL	3,88,38,250	-11.5%	345.95	-0.3%
LICI	87,59,100	-10.4%	891.65	-0.7%
TATATECH	1,09,27,200	-9.8%	679.45	-0.7%

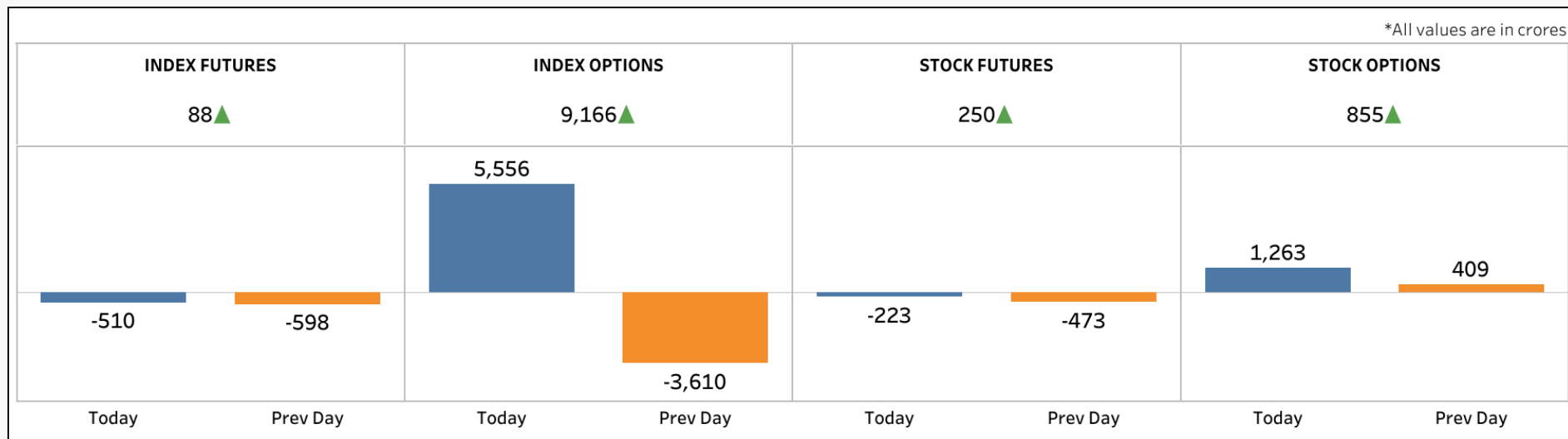
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Trends by Participant

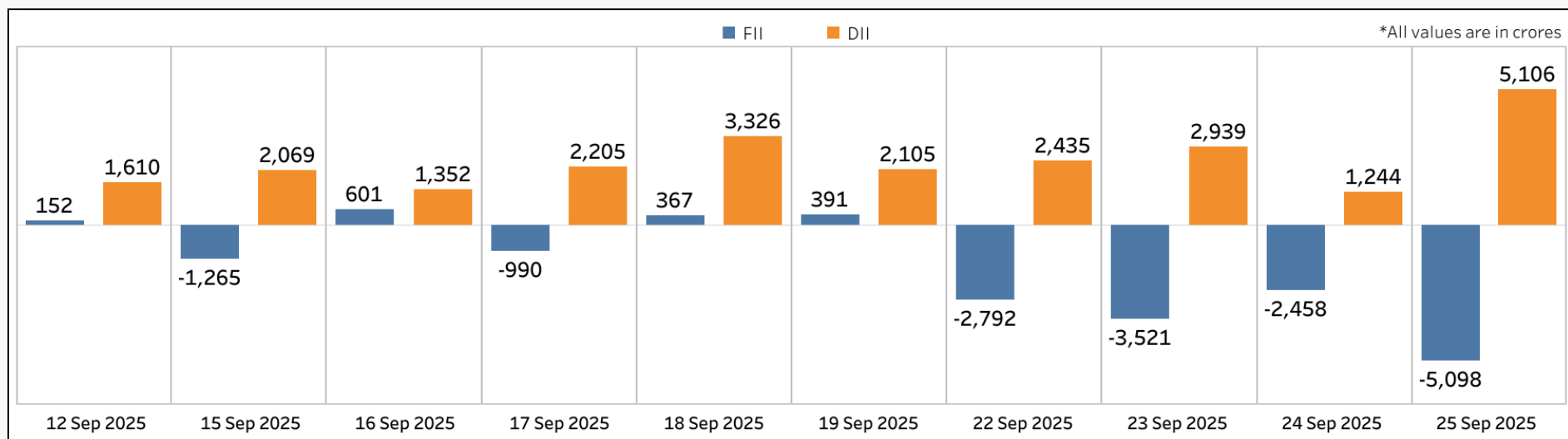
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
9,208 ▲	534 ▲	36,864 ▲	92 ▲	0	4,164 ▲	-500 ▼	-33,521 ▼
		44,556		0	2,556		4,835
		7,692			-1,608		
-17,036	-2,587		-10,404			-5,850	-28,686
-26,244	-3,121		-10,496			-5,350	
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-75,734	-147,886	319,619	1,302,297	963	46,186	25,645	-4,087,421
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
62,135 ▲	-1,989 ▼	87,302 ▲	-846 ▼	-71,343 ▼	-2,709 ▼	-123,663 ▼	34,275 ▲
54,001						122,847	
	2,219	4,208	13,767				25,323
-8,134		-37,889		34,378	521		
		-125,191		-36,965	-2,188	-816	-8,952
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
16,540	116,029	-511,331	2,325,888	58,231	-14,329	166,067	459,236
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day

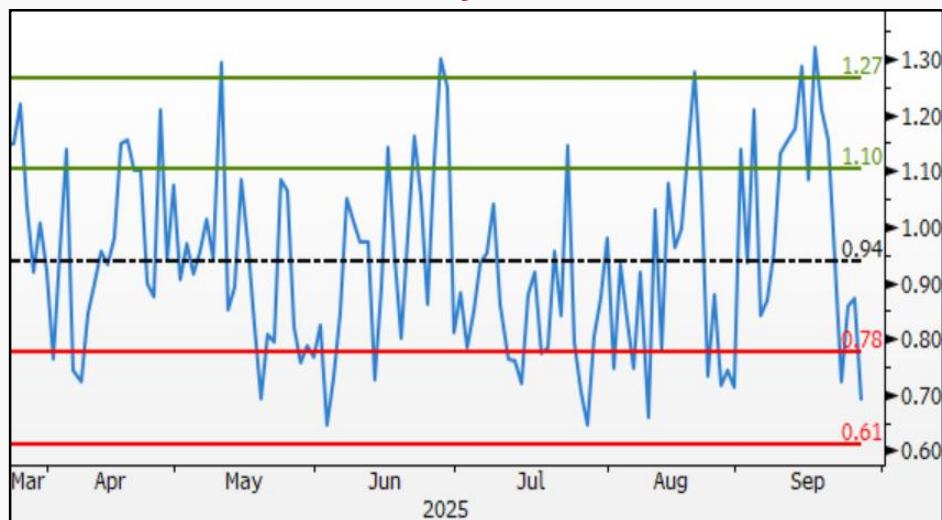
## Daily Net Open Interest Change



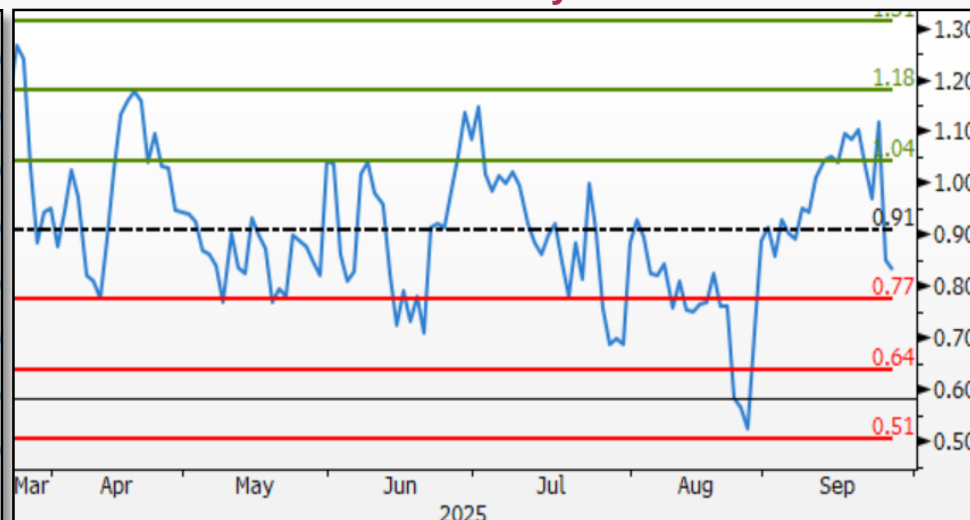
## DII and FII Daily Cash Market Flows



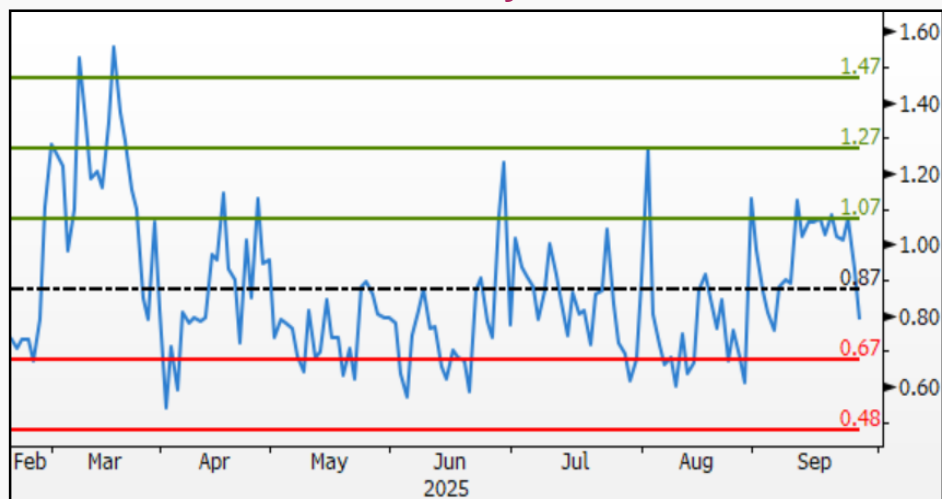
## Nifty



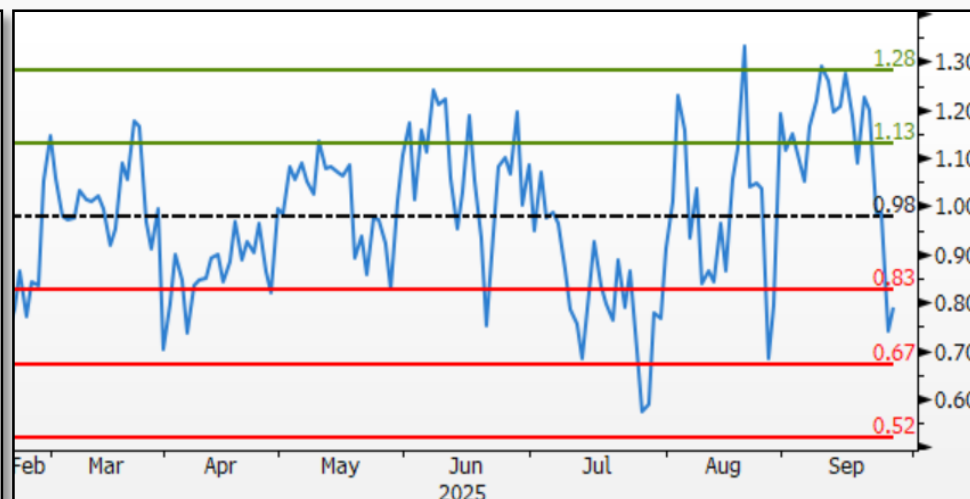
## Bank Nifty



## Fin Nifty



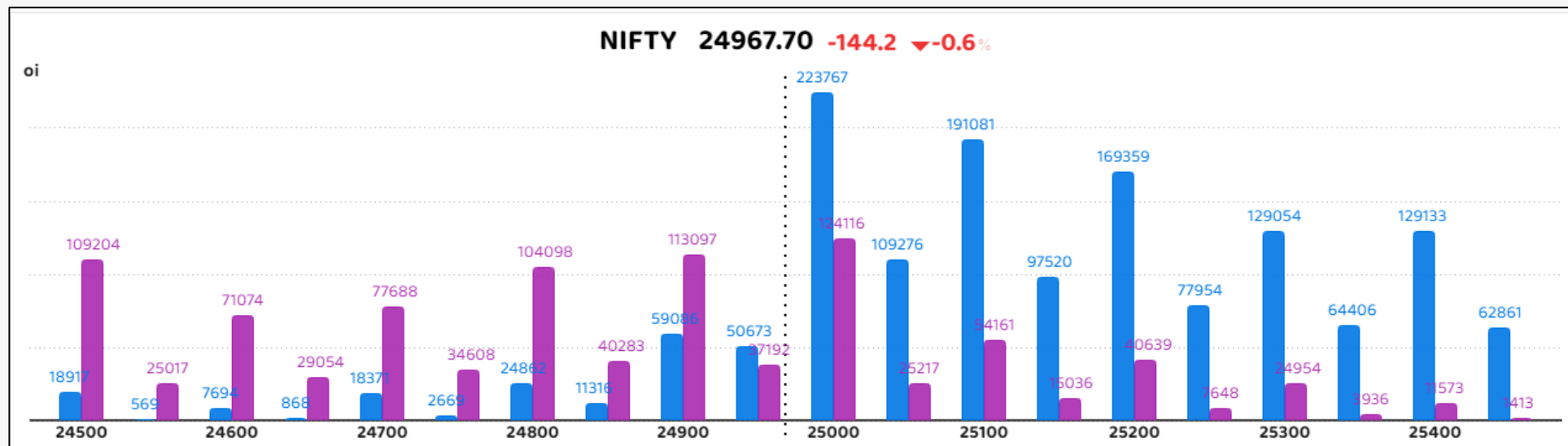
## Midcap Select Nifty



On the day immediately post expiration, PCR values will differ due to the way open interest data for the expired series is treated for the PCR calculation

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

Call  Put 



For the Nifty, the 25,000 Call and the 24,900 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.

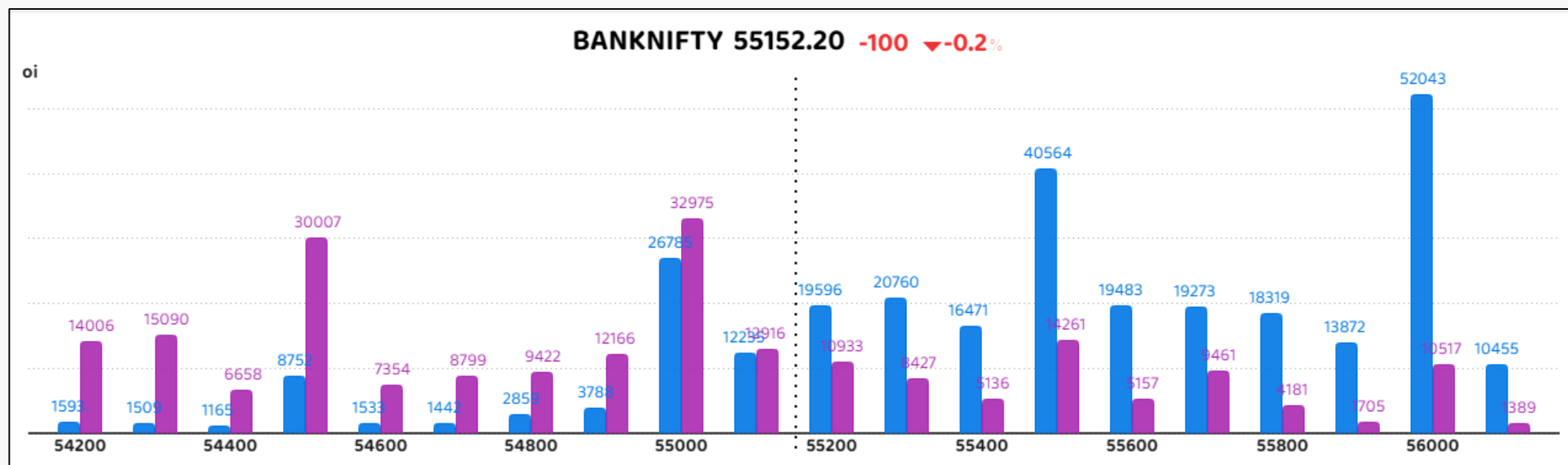
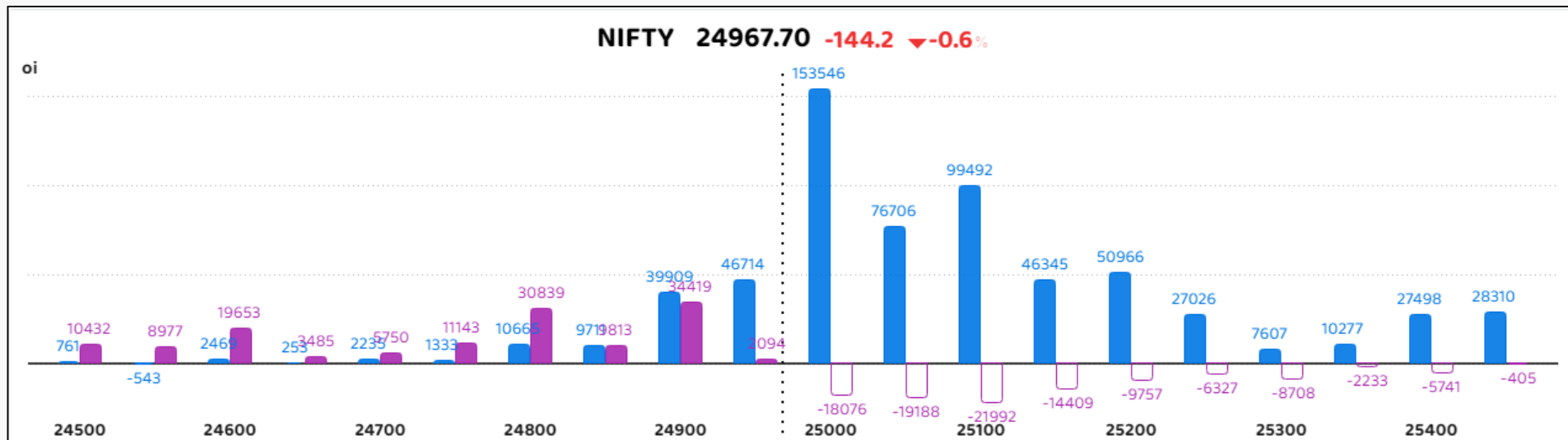


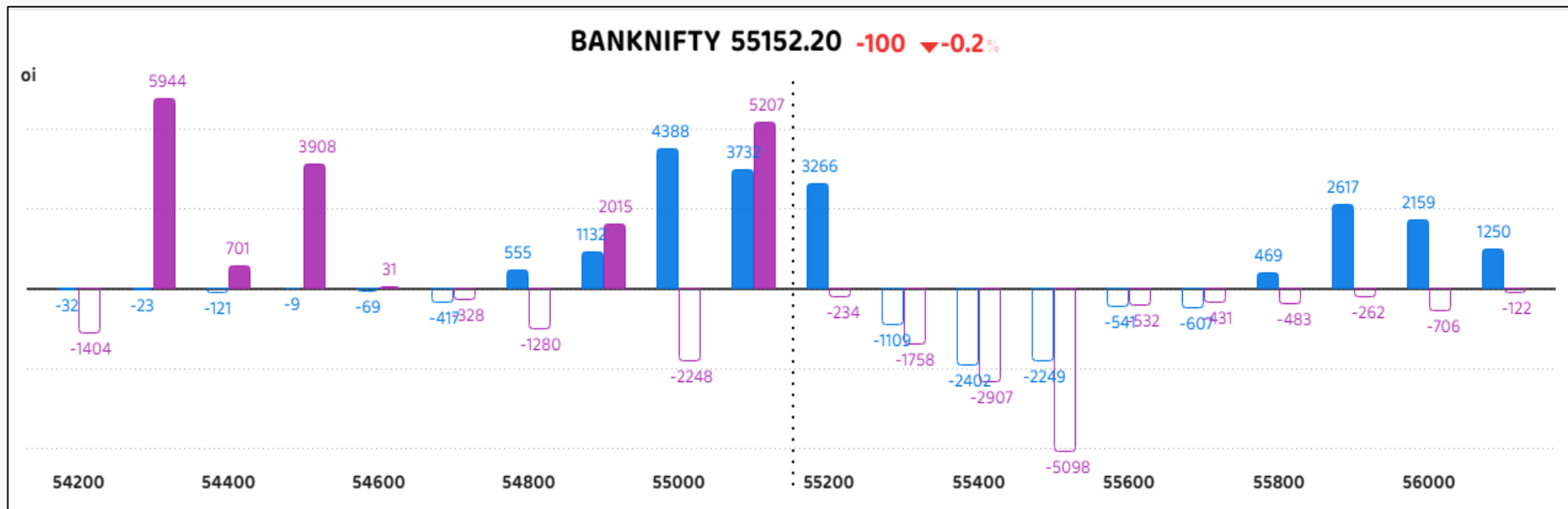
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,000 Call and the 24,800 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,100 Call & the 55,500 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
KFIN TECHNOLOGIES	1063.1	0.2	42.2	44.8	29.1	83.3
BAJAJ AUTO LTD	8842.5	0.0	27.7	36.4	2.1	74.5
SBI CARDS & PAYMENTS	887	0.3	28.6	36.9	4.6	74.2
HDFC BANK LTD	949.85	-0.1	21.1	26.8	5.1	73.5
PIRAMAL PHARMA	195.2	-0.6	36.7	40.1	27.3	73.3

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
FED BANK LTD	193.33	-0.1	20.9	130.9	17.1	3.4
NTPC LTD	340.5	-2.0	20.0	116.6	16.7	3.4
PUNJAB NATL BANK	111.4	0.4	26.4	108.3	21.3	5.9
HDFC LIFE	765.05	-0.7	22.5	80.6	18.2	6.9
TATA CHEMICALS	952.25	-1.2	21.7	40.8	20.3	7.1



## Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
HFCL LTD	76.4	1.0	61.7	89.4	33.2	99.0
VODAFONE IDEA LTD	8.68	1.0	83.9	136.3	29.5	99.0
TATA CONSULTANCY	2957.4	-2.6	25.2	57.2	1.3	94.3
HDFC BANK LTD	949.85	-0.1	21.1	26.8	5.1	92.1
COFORGE LTD	1591.3	-2.0	40.1	60.2	18.1	91.1

## Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
POLYCAB INDIA LTD	7407.5	-1.7	11.0	53.7	2.8	0.8
TATA CHEMICALS	952.25	-1.2	21.7	40.8	20.3	1.7
ABB INDIA LTD	5200.7	-0.7	25.6	47.7	22.5	6.5
TORRENT PHARMA	3531.6	-2.3	19.3	34.6	8.3	7.7
TATA POWER	386	-1.1	21.4	48.7	18.6	8.2

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
VODAFONE IDEA LTD	8.68	1.0	33217	4552	7.3
PAGE INDUSTRIES	42625	0.5	14057	2491	5.6
ADANI ENERGY	894.2	0.6	39993	9449	4.2
NESTLE INDIA LTD	1173.5	-0.4	16467	3938	4.2
APOLLO HOSPITALS	7624	-0.3	15620	3833	4.1

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
POLYCAB INDIA LTD	7407.5	-1.7	37923	53752	1.4
LODHA DEVELOPERS	1149.4	-2.5	9673	10992	1.1
GODREJ CONSUMER	1189.2	0.3	10215	10836	1.1
ASTRAL LTD	1405.9	-2.4	15746	15830	1.0
SONA BLW PRECISION	409.65	-1.7	9930	9874	1.0

## Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
RAIL VIKAS NIGAM	346.55	-0.3	14432	14432	100.0
KFIN TECHNOLOGIES	1063.1	0.2	4418	4470	98.8
TRENT LTD	4742.5	-3.2	85438	89417	95.6
TORRENT POWER LTD	1254.5	-0.8	4917	5179	94.9
KAYNES TECHNOLOGY	7503	0.7	13642	14386	94.8

## Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
POLYCAB INDIA LTD	7407.5	-1.7	37923	53752	1.4
LODHA DEVELOPERS	1149.4	-2.5	9673	10992	1.1
GODREJ CONSUMER	1189.2	0.3	10215	10836	1.1
ASTRAL LTD	1405.9	-2.4	15746	15830	1.0
SONA BLW PRECISION	409.65	-1.7	9930	9874	1.0

## Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
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	Relative to Highest PV
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
ADANI GREEN ENERGY	1079.55	-1.4	31803	11272	2.8
DALMIA BHARAT LTD	2262.3	-2.5	8126	3675	2.2
OIL INDIA LTD	414.8	2.0	6243	2874	2.2
PAGE INDUSTRIES	42625	0.5	11755	5622	2.1
ADANI ENERGY	894.2	0.6	12623	6074	2.1

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
ADANI GREEN ENERGY	1079.55	-1.4	14102	7013	2.0
KPIT TECHNOLOGIES	1255.7	1.2	6117	3084	2.0
INDIAN BANK	712.4	0.6	3016	1711	1.8
POLYCAB INDIA LTD	7407.5	-1.7	5299	3007	1.8
MANKIND PHARMA	2526.2	-0.1	2201	1251	1.8

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
OIL INDIA LTD	414.8	2.0	42434	4794	8.9
LUPIN LTD	1963.5	-1.4	40454	11788	3.4
HAL	4775.2	1.1	227498	71821	3.2
OIL & NATURAL GAS	239.67	0.5	55515	19564	2.8
POLYCAB INDIA LTD	7407.5	-1.7	37923	13596	2.8

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
OIL INDIA LTD	414.8	2.0	10548	1460	7.2
POLYCAB INDIA LTD	7407.5	-1.7	53752	7879	6.8
ASTRAL LTD	1405.9	-2.4	15830	3799	4.2
TATA MOTORS LTD	664.3	-2.7	207594	52075	4.0
LODHA DEVELOPERS	1149.4	-2.5	10992	2961	3.7

## 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	2700	1621800	4.8%	2576	2400	962400	-6.8%	ITC	410	7259200	2.5%	400	400	3038400	0.0%
ADANIPTS	1460	1707625	3.8%	1407	1400	1193675	-0.5%	JIOFIN	320	12600700	6.1%	302	310	3334650	2.8%
APOLLOHOSP	7900	170250	3.6%	7624	6900	42125	-9.5%	JSWSTEEL	1200	997650	4.5%	1149	1100	417150	-4.2%
ASIANPAINT	2600	1222250	8.2%	2404	2500	272250	4.0%	KOTAKBANK	2000	1198400	-0.7%	2014	2040	982400	1.3%
AXISBANK	1120	2202500	-4.0%	1167	1100	1668125	-5.7%	LT	3650	1185450	0.2%	3644	3600	586425	-1.2%
BAJAJ-AUTO	9200	285900	4.0%	8843	8700	82575	-1.6%	M&M	3700	979800	4.8%	3530	3400	493000	-3.7%
BAJAJFINSV	2100	1958000	3.2%	2036	1900	604000	-6.7%	MARUTI	16500	344900	1.4%	16269	15000	405550	-7.8%
BAJFINANCE	1030	2583750	1.7%	1013	1000	1344750	-1.3%	NESTLEIND	1220	847000	4.0%	1174	1150	313500	-2.0%
BEL	410	9678600	1.7%	403	400	4155300	-0.8%	NTPC	340	11419500	-0.1%	341	340	5293500	-0.1%
BHARTIARTL	1960	2498500	1.3%	1936	1900	1059725	-1.8%	ONGC	240	17867250	0.1%	240	235	7107750	-1.9%
CIPLA	1600	1312125	6.0%	1510	1440	256875	-4.6%	POWERGRID	300	3765800	5.5%	284	280	1278700	-1.5%
COALINDIA	400	7938000	1.9%	393	390	2057400	-0.6%	RELIANCE	1500	6494500	9.3%	1372	1400	1870000	2.0%
DRREDDY	1300	3734375	1.9%	1275	1300	880000	1.9%	SBILIFE	1840	642000	1.7%	1810	1800	133500	-0.5%
EICHERMOT	7100	257600	1.6%	6986	6500	251125	-7.0%	SBIN	880	8535000	2.2%	861	800	5078250	-7.1%
ETERNAL	340	7071300	2.3%	332	320	4956700	-3.7%	SHRIRAMFIN	630	990825	2.8%	613	600	905025	-2.1%
GRASIM	2900	409000	4.4%	2779	2600	145500	-6.4%	SUNPHARMA	1620	1155000	-0.5%	1627	1600	776300	-1.7%
HCLTECH	1500	1257900	5.4%	1424	1400	477050	-1.7%	TATACONSUM	1200	638000	5.8%	1134	970	397650	-14.5%
HDFCBANK	970	8468900	2.1%	950	960	2770900	1.1%	TATAMOTORS	720	8705600	8.4%	664	650	2996000	-2.2%
HDFCLIFE	800	1976700	4.6%	765	780	601700	2.0%	TATASTEEL	175	20784500	1.5%	172	160	13596000	-7.2%
HEROMOTOCO	5500	707850	2.7%	5355	5200	310350	-2.9%	TCS	3200	1477000	8.2%	2957	3000	677425	1.4%
HINDALCO	760	2468200	1.9%	746	740	971600	-0.8%	TECHM	1580	1411800	9.4%	1444	1480	1393800	2.5%
HINDUNILVR	2700	1576800	6.4%	2538	2600	303000	2.4%	TITAN	3600	803075	6.6%	3379	3400	312550	0.6%
ICICIBANK	1400	3276000	1.8%	1376	1400	1741600	1.8%	TRENT	5300	850800	11.8%	4743	4800	204600	1.2%
INDUSINDBK	750	1977500	1.2%	741	740	1045100	-0.1%	ULTRACEMCO	13000	154950	7.1%	12141	12000	36950	-1.2%
INFY	1540	4600800	3.7%	1485	1440	2591600	-3.0%	WIPRO	260	11388000	7.4%	242	240	3408000	-0.8%

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

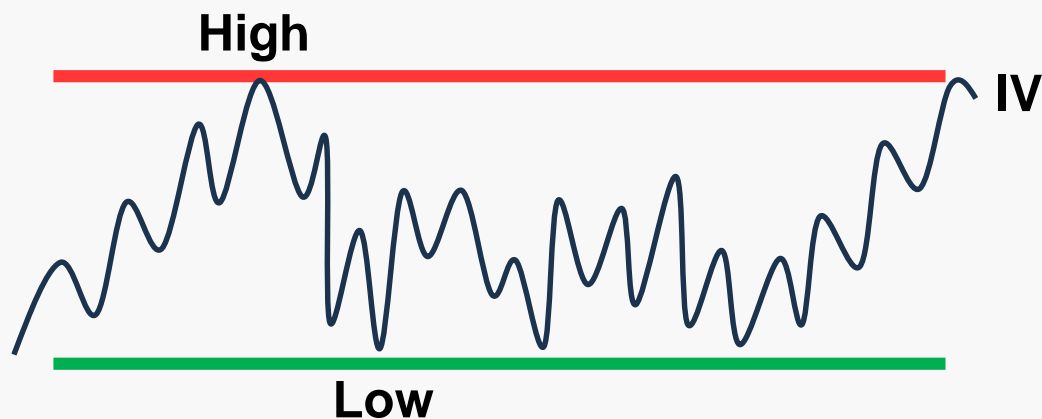


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

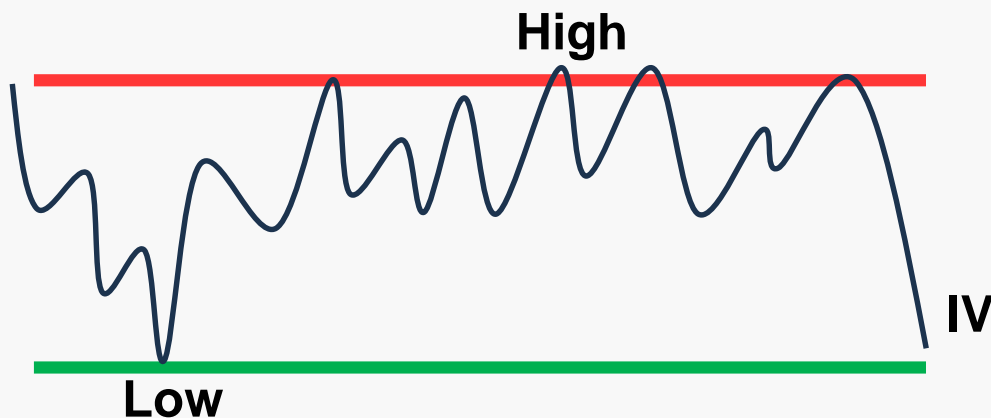


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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