



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	25,899	0.7% ▼
Open Interest (OI)	1,80,51,550	5.7% ▲
Change in OI (abs)	1,80,51,550	1,02,7430 ▲
Premium / Discount (Abs)	136	25 ▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	58,404	0.5% ▼
Open interest (OI)	19,45,030	0.9% ▼
Change in OI (abs)	18,45,030	18,095 ▼
Premium / Discount (Abs)	303	12 ▼
Inference	Long Unwinding	

Volatility Insights

	Value	Change
India VIX Index	12.65	0.01 ▼
Nifty ATM IV (%)	11.37	0.1 ▼
Bank Nifty ATM IV (%)	12.19	0.1 ▲
PCR (Nifty)	0.93	0.15 ▲
PCR (Bank Nifty)	0.89	0.09 ▼

The FII Long Ratio in Index Futures **Drop** to 15.2 %, **down** from 15.3 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
POWERINDIA	2,01,800	32.6%	20473	14.1%
SBIN	8,57,07,750	5.6%	962.2	0.9%
DELHIVERY	1,99,07,550	5.2%	486.25	2.4%
M&M	2,08,65,600	3.1%	3597.8	0.8%
LUPIN	1,23,61,550	2.7%	2007.6	0.5%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
HEROMOTOCO	50,43,300	16.2%	5336	-4.2%
PIIND	19,95,175	11.3%	3696.1	-0.3%
DIVISLAB	30,24,400	10.4%	6840	0.0%
TMPV	4,90,99,200	9.0%	406.35	-2.8%
PPLPHARMA	2,25,02,750	6.7%	200.03	-0.5%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NUVAMA	3,18,825	-10.7%	7120	0.1%
SUZLON	28,56,71,650	-4.9%	60.11	0.8%
IOC	9,95,81,625	-4.5%	169.54	0.7%
BHARTIARTL	4,33,30,925	-4.3%	2117.9	1.7%
LAURUSLABS	1,89,81,350	-3.8%	985.6	0.7%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BANKINDIA	6,07,15,200	-11.7%	142.39	-0.2%
CANBK	21,43,05,750	-4.8%	139.94	-0.1%
BANKBARODA	10,54,49,175	-4.4%	288.85	-1.2%
EICHERMOT	31,11,975	-4.4%	6942	-1.5%
TATACONSUM	1,68,08,000	-4.3%	1181.8	-1.8%

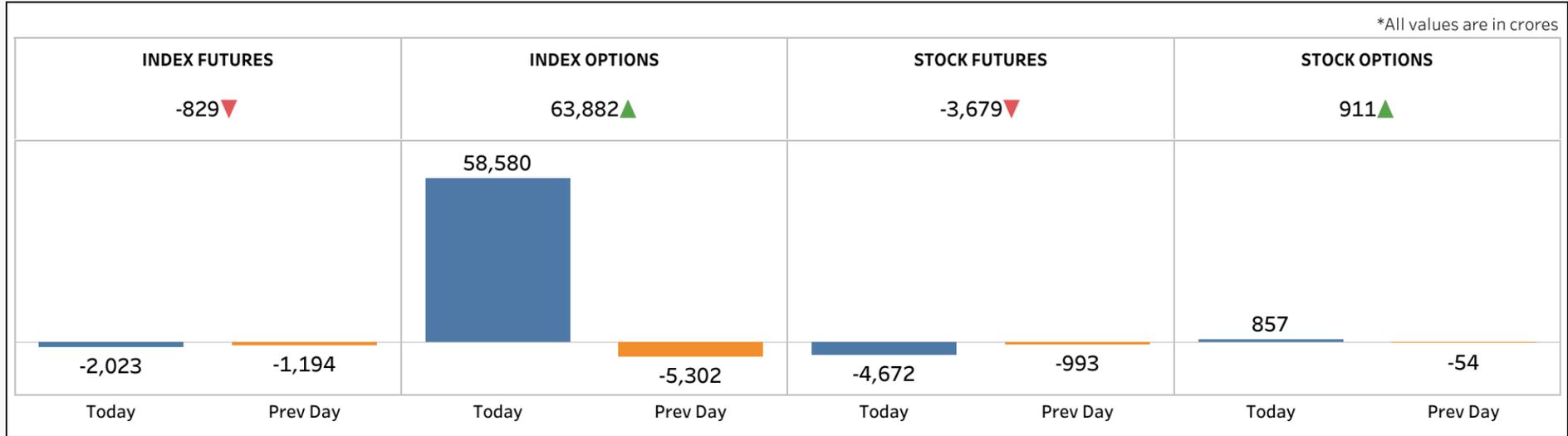
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

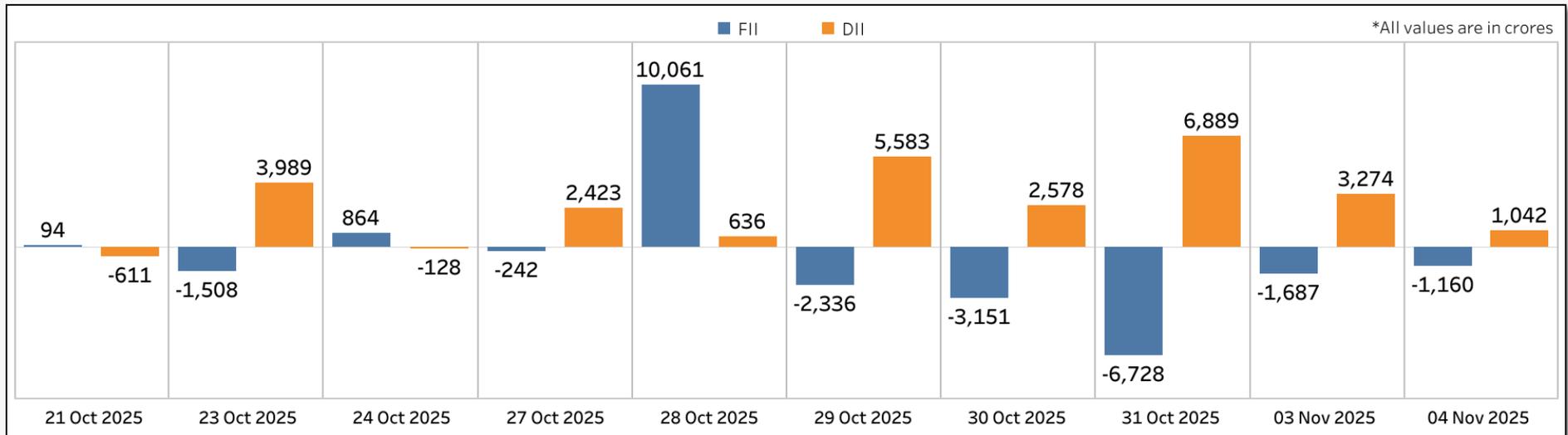
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
2,685 ▲	-4,237 ▼	45,358 ▲	-54,257 ▼	0	-2,104 ▼	-1,700 ▼	32,316 ▲
1,505		24,218					35,695
-1,180	-10,391			0	603	0	3,379
	-6,154						
		-21,140					
			-18,358				
			-72,615		-1,501	-1,700	
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
11,181	-135,218	243,162	1,297,167	1,263	38,038	38,327	-4,397,098
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
-15,679 ▼	276 ▲	-212,137 ▼	31,097 ▲	12,992 ▲	6,065 ▲	168,482 ▲	-9,156 ▼
5,613		121,183				68,437	
21,292	9,413			-7,118	2,479		8,862
	9,137			-20,110			
					-3,586		
			37,214				
			6,117				
		-90,954					
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
66,253	102,745	-428,723	2,558,089	-78,695	-5,565	147,234	541,842
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day

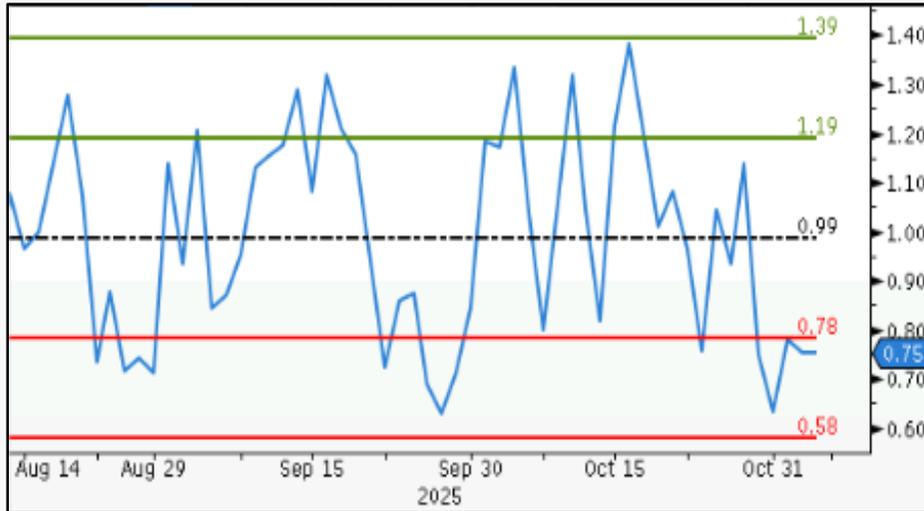
Daily Net Open Interest Change



DII and FII Daily Cash Market Flows



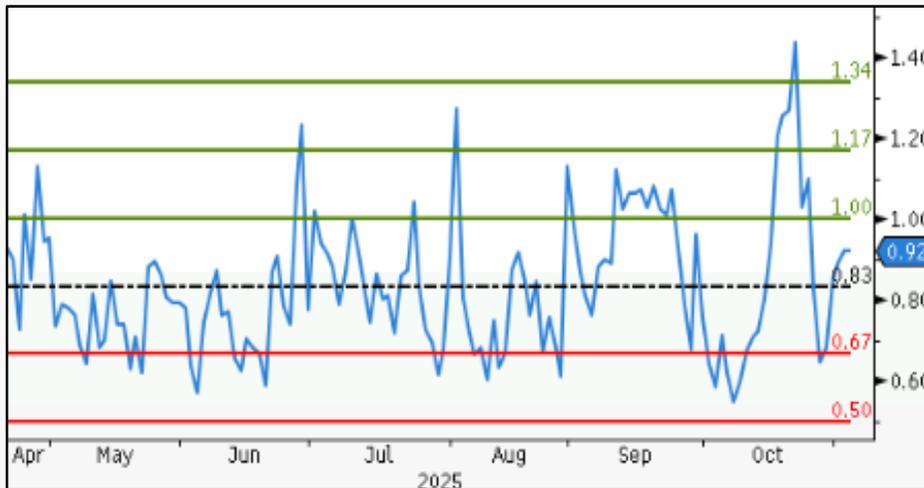
Nifty



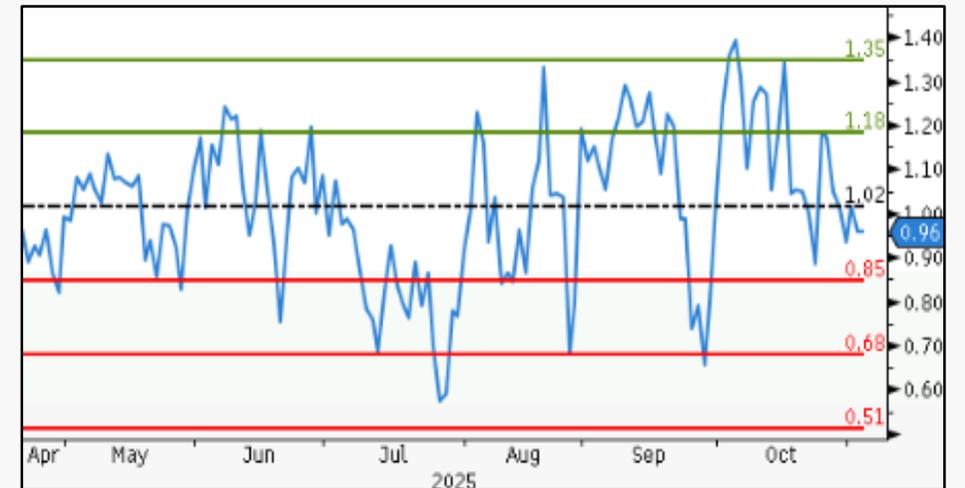
Bank Nifty



Fin Nifty



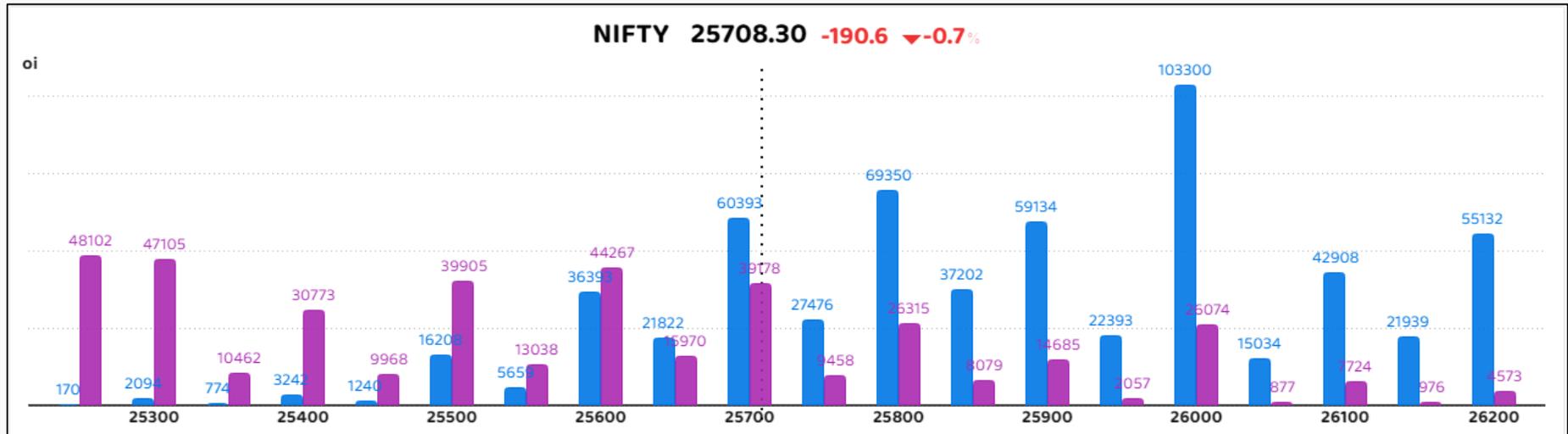
Midcap Select Nifty



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 Nifty, the 26,000 Call and 25,300 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 58,500 Call and the 58,000 Put saw the most amount of open interest.

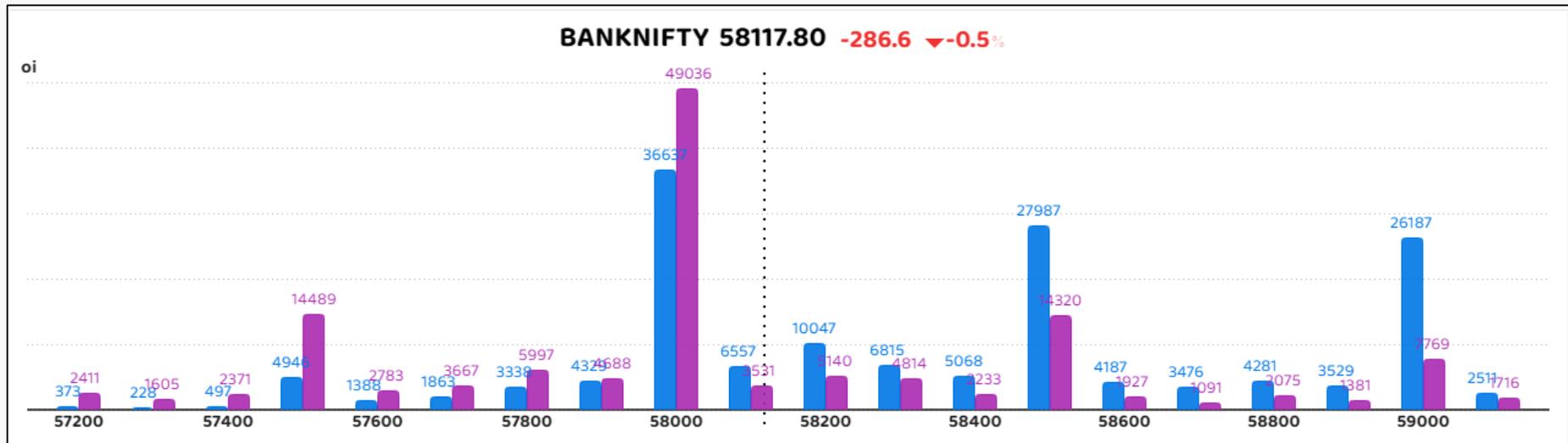
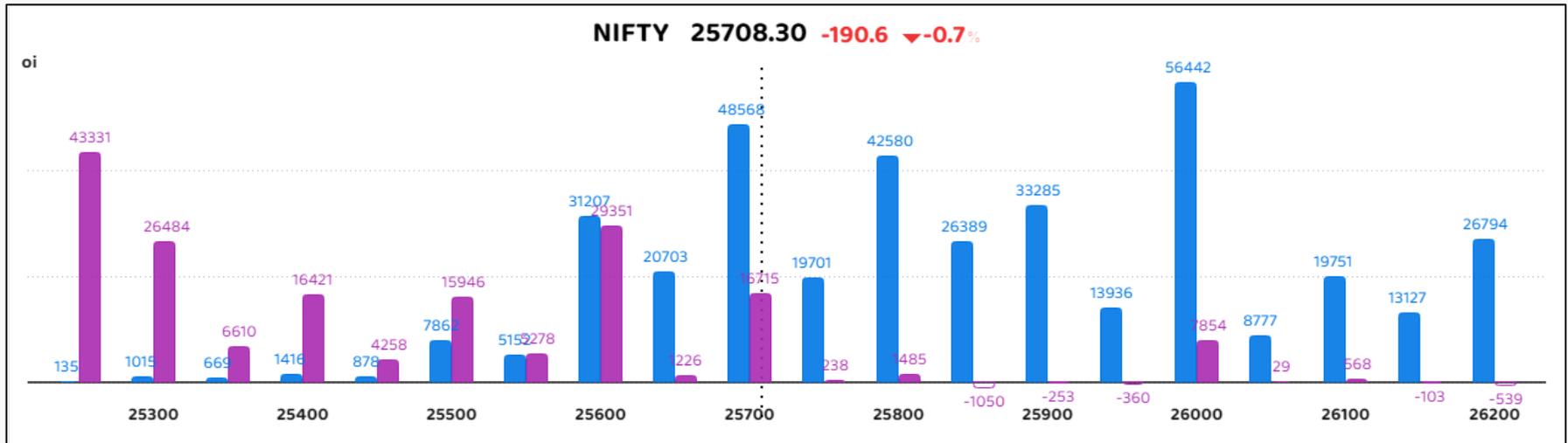


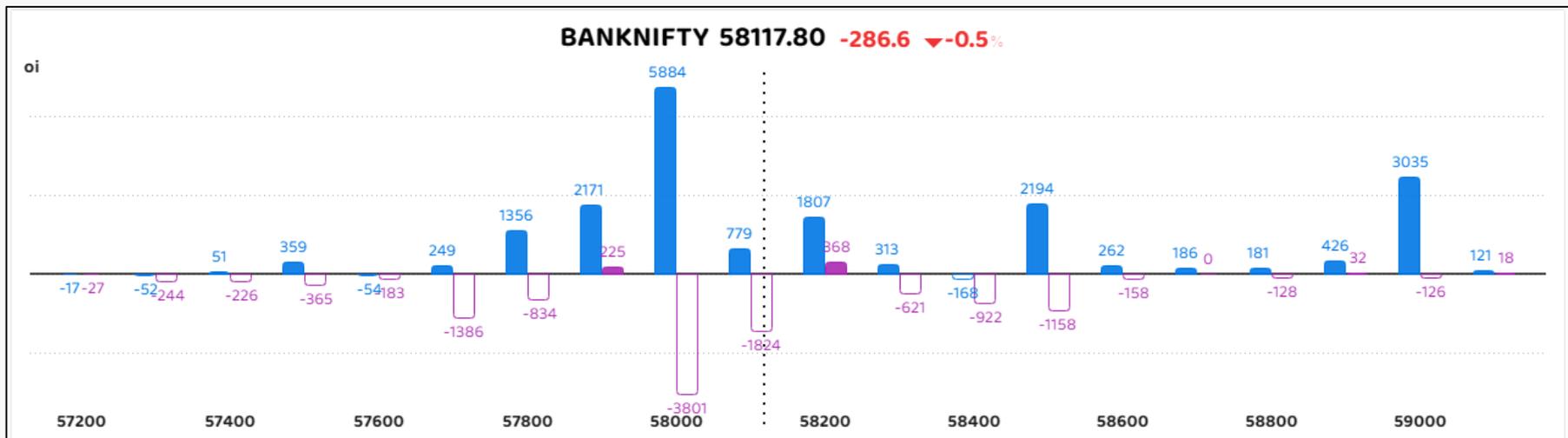
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 26,000 Call and the 25,200 Put



For the Bank Nifty, the biggest open interest changes were seen at the 58,000 Call & the 58,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
VOLTAS LTD	1359.4	-0.4	39.2	46.9	16.9	74.2
BOSCH LTD	37850	2.2	24.9	36.2	2.1	66.9
CHOLAMANDALAM IN	1745.9	1.6	39	47.2	23.4	65.4
HDFC BANK LTD	985.3	-0.7	18.1	28	1.5	62.7
UPL LTD	731.4	0.1	26.5	42.7	2.9	59.5

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INFOSYS LTD	1467.9	-1.1	2.3	60.8	2.3	0
HDFC LIFE INSURA	742.5	0.9	18.7	80.6	18.2	0.9
NTPC LTD	330.6	-1.3	19	116.6	16.7	2.3
LIC HOUSING FIN	574	-0.2	19.7	41.9	19.1	2.4
VODAFONE IDEA LT	9.4	-1.3	22.2	212.9	14.5	3.8

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
CHOLAMANDALAM IN	1745.9	1.6	39	47.2	23.4	94.8
RAIL VIKAS NIGAM	325.8	-0.9	43.8	50.3	22.9	89.4
KAYNES TECHNOLOG	6658.5	0.1	40.8	49.4	30.3	89.1
VOLTAS LTD	1359.4	-0.4	39.2	46.9	16.9	87.9
UNO MINDA LTD	1252	-1.0	36.8	43.6	10.9	85.9

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INFOSYS LTD	1467.9	-1.1	2.3	60.8	2.3	0
VODAFONE IDEA LT	9.41	-1.3	22.2	212.9	14.5	0.7
LIC HOUSING FIN	574	-0.3	19.7	41.9	19.1	0.8
LODHA DEVELOPERS	1222.9	-1.0	28.8	57.6	28.1	0.8
DLF LTD	774.6	-0.3	23.4	64.6	9.2	1.6

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
ICICIGI	2,040	1.6	11,818	2,442	4.8
PHOENIXLTD	1,767.7	1.2	6,696	1,476	4.5
DMART	4,182.4	0.6	12,642	2,816	4.5
JSWENERGY	528.1	-0.9	5,384	1,222	4.4
HDFCAMC	5,402.5	0	11,709	2,701	4.3

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
PERSISTENT	5,858.5	-1.2	5,590	7,840	1.4
HINDALCO	831.4	-1.9	16,290	20,328	1.2
HEROMOTOCO	5,309	-4.2	46,967	40,878	0.9
BSE	2,496.6	-2	23,192	19,043	0.8
FEDERALBNK	237.8	0	7,874	6,292	0.8

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
CIPLA	1,503.3	-0.5	31,999	31,273	100
KFINTECH	1,069.4	-3	9,599	8,818	100
NMDC	74.3	-2.2	19,337	18,593	100
POWERINDIA	20,457	14.2	5,201	2,027	100
SUZLON	60	1.3	25,290	21,838	100

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
HINDALCO	831.4	-1.9	19,704	19,651	100
POWERINDIA	20,457	14.2	6,096	825	100
SHRIRAMFIN	796.5	0	17,401	16,283	100
SUZLON	60	1.3	13,009	10,209	100
TVSMOTOR	3,473.1	-1.1	11,894	12,021	98.9

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
POWERINDIA	20,457	14.2	54,808	4,435	100
SUZLON	60	1.3	75,034	40,831	100
DABUR	517	2.7	51,547	87,715	58.8
SBIN	957.6	0.8	265,108	522,508	50.7
GMRAIRPORT	95.2	1.8	22,254	47,232	47.1

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
POWERINDIA	20,457	14.2	30,860	3,646	100
SUZLON	60	1.3	24,937	29,436	84.7
DABUR	517	2.7	23,257	40,849	56.9
SBIN	957.6	0.8	158,123	315,220	50.2
TITAN	3,813.5	2.4	69,504	140,899	49.3

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
POWERINDIA	20,457	14.2	5,201	1,017	5.1
TVSMOTOR	3,473.1	-1.1	25,751	10,701	2.4
PATANJALI	575.6	-0.4	14,085	6,182	2.3
DRREDDY	1,200	0.3	26,183	12,057	2.2
KFINTECH	1,069.4	-3	9,599	4,727	2

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
POWERINDIA	20,457	14.2	6,096	294	20.7
TATACONSUM	1,179.3	-1.5	7,773	3,053	2.5
BHEL	267.2	0.9	16,046	7,375	2.2
SHRIRAMFIN	796.5	0	17,401	8,822	2
TVSMOTOR	3,473.1	-1.1	11,894	6,343	1.9

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
POWERINDIA	20,457	14.2	54,808	1,712	32
SUZLON	60	1.3	75,034	12,607	6
TITAN	3,813.5	2.4	158,037	42,229	3.7
DABUR	517	2.7	51,547	13,863	3.7
DELHIVERY	484.8	2.7	23,769	7,134	3.3

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
POWERINDIA	20,457	14.2	30,860	611	50.5
SUZLON	60	1.3	24,937	4,094	6.1
TATACONSUM	1,179.3	-1.5	27,708	5,180	5.3
DABUR	517	2.7	23,257	6,349	3.7
NCC	205.7	-3.9	3,546	1,040	3.4

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
ADANIEN	2500	1862700	3.3%	2420	2500	2720400	3.3%	JIOFIN	350	10187250	15.9%	302	310	6664600	2.7%
ADANIPTS	1500	1955100	3.8%	1444	1400	1261125	-3.1%	JSWSTEEL	1340	1152225	13.4%	1181	1100	660150	-6.9%
APOLLOHOSP	8600	108000	10.1%	7811	7500	70625	-4.0%	KOTAKBANK	2200	1768400	4.9%	2097	2100	860800	0.2%
ASIANPAINT	2600	543750	4.6%	2487	2240	320500	-9.9%	LT	4000	948500	1.9%	3924	3900	377300	-0.6%
AXISBANK	1300	1751250	6.0%	1227	1140	1006875	-7.1%	M&M	3600	1471800	0.5%	3581	3600	633000	0.5%
BAJAJ-AUTO	9000	152400	2.8%	8751	9000	82650	2.8%	MARUTI	17000	556900	10.6%	15374	15000	141400	-2.4%
BAJAJFINSV	2100	517000	1.3%	2073	1900	362000	-8.4%	MAXHEALTH	1200	454125	5.4%	1138	1200	221025	5.4%
BAJFINANCE	1100	1839750	4.1%	1057	1050	1129500	-0.7%	NESTLEIND	1300	1881500	2.8%	1265	1300	220500	2.8%
BEL	420	8849250	1.2%	415	400	4503000	-3.6%	NTPC	350	9261000	5.9%	331	300	2728500	-9.3%
BHARTIARTL	2100	2234400	-0.6%	2113	2000	931950	-5.4%	ONGC	260	6057000	3.0%	252	255	1602000	1.1%
CIPLA	1600	2043750	6.4%	1503	1500	660000	-0.2%	POWERGRID	300	7233300	7.5%	279	280	2722700	0.3%
COALINDIA	389.75	6339600	3.2%	378	369.75	2681100	-2.1%	RELIANCE	1500	7259000	1.8%	1473	1500	2978500	1.8%
DRREDDY	1300	3301875	8.3%	1200	1200	756250	0.0%	SBILIFE	2000	594375	1.4%	1972	1900	691500	-3.6%
EICHERMOT	7000	182000	1.0%	6930	6200	215600	-10.5%	SBIN	1000	7866750	4.4%	958	940	3614250	-1.8%
ETERNAL	350	12479050	11.6%	314	320	5434425	2.1%	SHRIRAMFIN	800	2211825	0.4%	797	800	2051775	0.4%
GRASIM	3000	617000	4.1%	2882	2800	249250	-2.8%	SUNPHARMA	1720	878150	1.8%	1690	1660	473900	-1.8%
HCLTECH	1720	665700	12.5%	1529	1400	1177050	-8.4%	TATACONSUM	1200	983400	1.8%	1179	1160	1137400	-1.6%
HDFCBANK	1000	5581400	1.5%	985	1000	3232900	1.5%	TMPV	420	4832000	3.3%	407	360	2584800	-11.4%
HDFCLIFE	750	1824900	1.0%	742	740	1017500	-0.3%	TATASTEEL	190	19547000	6.0%	179	175	9531500	-2.4%
HINDALCO	850	1362200	2.2%	831	830	2193800	-0.2%	TCS	3100	2235975	3.7%	2990	3000	1067675	0.3%
HINDUNILVR	2600	2173200	6.3%	2446	2500	740100	2.2%	TECHM	1500	1003800	6.4%	1409	1300	435000	-7.7%
ICICIBANK	1400	8767500	4.7%	1337	1400	3097500	4.7%	TITAN	3800	485275	-0.4%	3814	3700	492800	-3.0%
INDIGO	6000	330000	6.4%	5637	5600	271800	-0.7%	TRENT	5000	373100	7.3%	4661	4800	235000	3.0%
INFY	1500	4144400	2.2%	1468	1500	2304000	2.2%	ULTRACEMCO	13000	109600	10.0%	11819	12000	65600	1.5%
ITC	430	8257600	5.2%	409	400	3136000	-2.2%	WIPRO	250	13560000	5.1%	238	240	5397000	0.9%

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

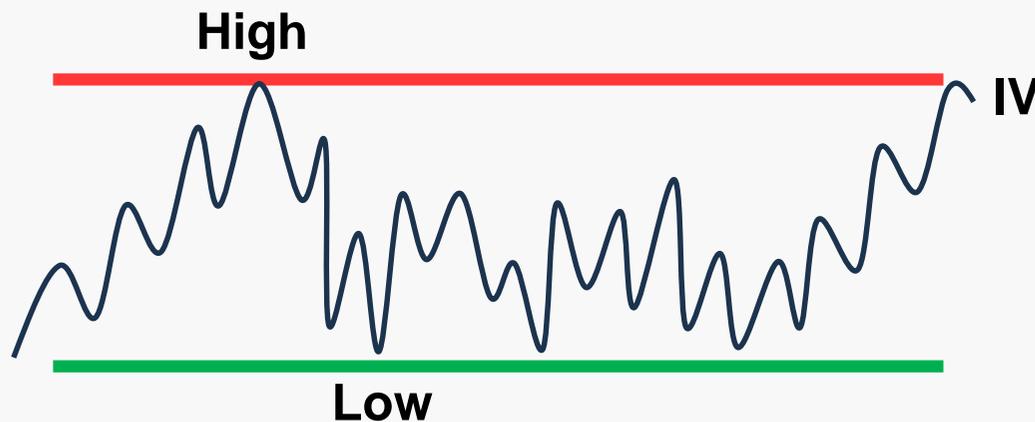
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

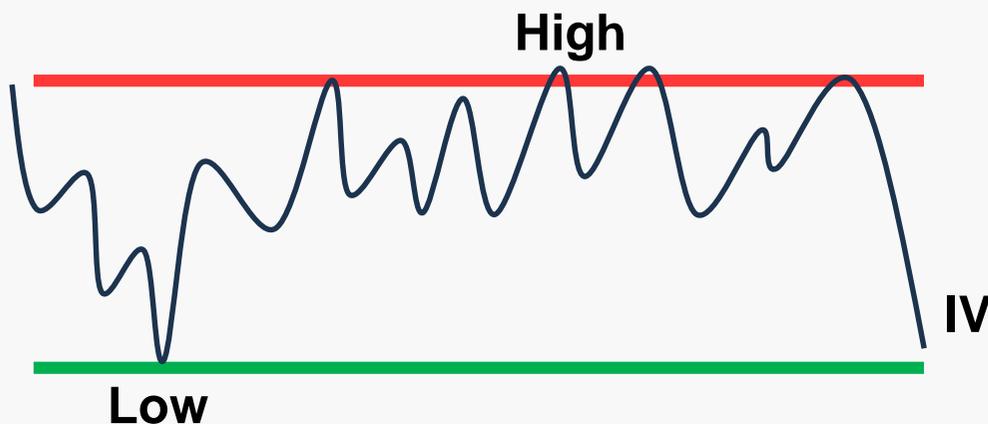
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

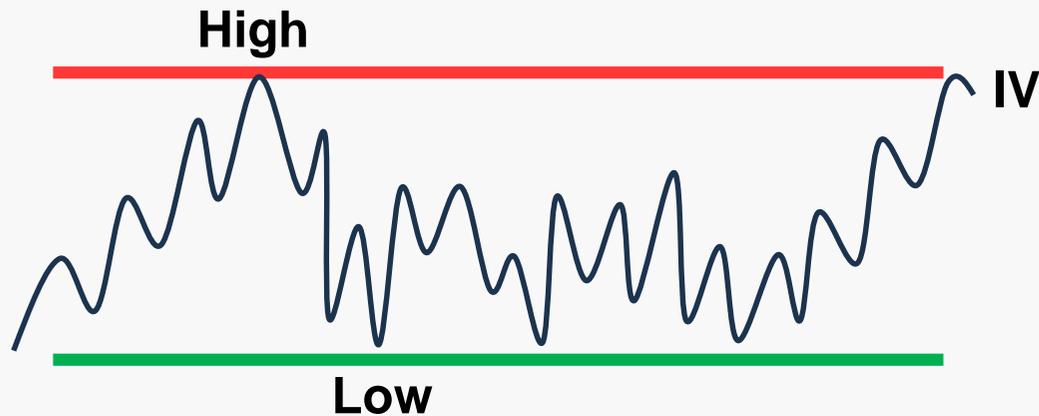


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

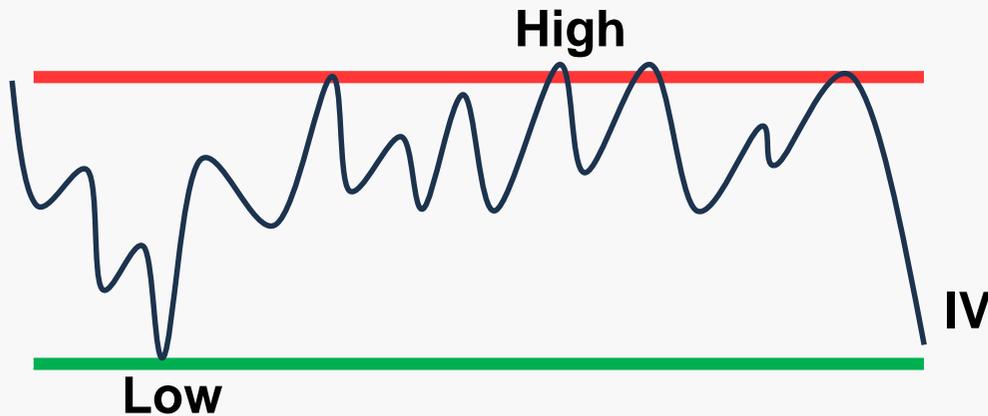


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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