



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	24,793	0.7%▲
Open Interest (OI)	1,75,10,025	2.0%▼
Change in OI (abs)	1,75,10,025	3,55,275▼
Premium / Discount (Abs)	70	8▲
Inference	Short Covering	

Bank Nifty Futures

	Value	Change
Most recent settlement	55,860	0.1%▲
Open interest (OI)	24,01,945	5.5%▲
Change in OI (abs)	24,01,945	1,24,600▲
Premium / Discount (Abs)	241	64▲
Inference	Long Build Up	

Volatility Insights

	Value	Change
India VIX Index	11.97	0.01▼
Nifty ATM IV (%)	10.73	0.1▼
Bank Nifty ATM IV (%)	11.46	0.3▲
PCR (Nifty)	0.94	0.19▲
PCR (Bank Nifty)	0.90	0.03▼

The FII Long Ratio in Index Futures **jump** to 9 %, **up** from 8.5 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DELHIVERY	1,36,84,625	15.1%	463.65	7.9%
KEI	9,88,050	12.4%	3904.6	2.1%
MANAPPURAM	2,37,30,000	8.0%	264.85	6.4%
CAMS	23,05,050	7.3%	3808.9	4.5%
COALINDIA	8,24,01,300	6.7%	366.5	0.6%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NUVAMA	68,700	90.0%	6874	-0.6%
SHREECEM	2,67,175	11.7%	30785	-0.1%
BIOCON	4,00,47,500	6.8%	384.35	-0.1%
NCC	1,40,31,900	5.7%	209.66	-1.3%
ABB	29,34,625	5.1%	5108.5	-5.1%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
JSWENERGY	3,88,44,000	-7.8%	540.3	5.3%
BLUESTARCO	11,53,100	-6.9%	1746.6	2.7%
CHOLAFIN	1,27,94,375	-6.7%	1477.6	4.2%
IREDA	3,59,69,700	-3.3%	148.63	2.3%
MCX	21,79,500	-3.1%	7967	5.1%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CESC	1,38,62,000	-8.0%	164.41	-1.1%
PNBHOUSING	1,67,01,100	-7.4%	780.85	-3.9%
ITC	9,85,21,600	-3.5%	417.85	-0.1%
GODREJCP	89,97,000	-2.5%	1246.6	-1.5%
ONGC	8,48,52,000	-2.5%	235.01	-0.6%

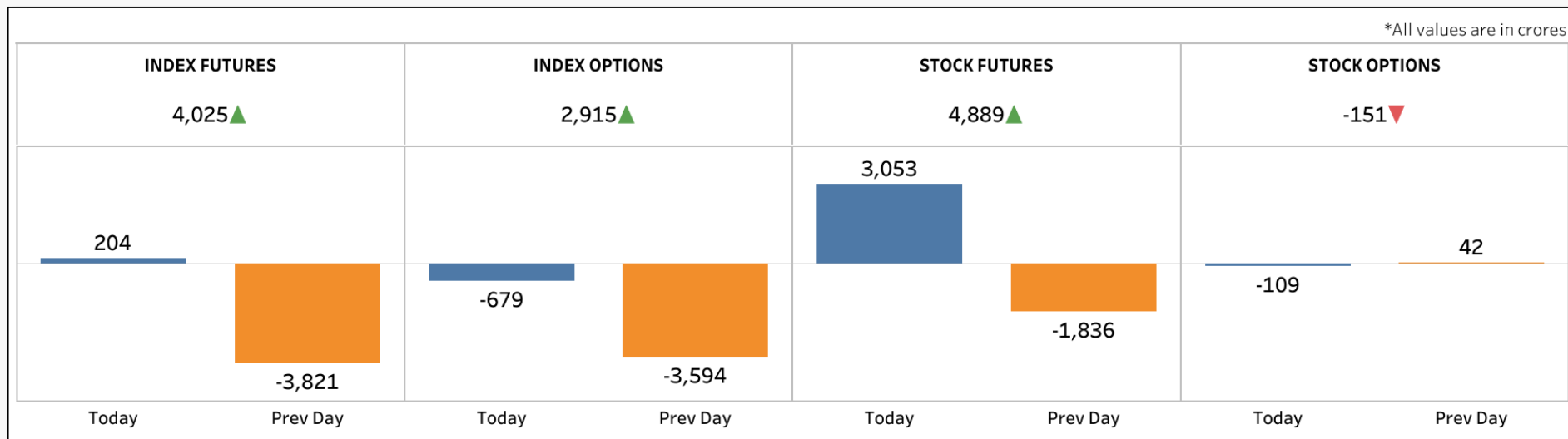
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

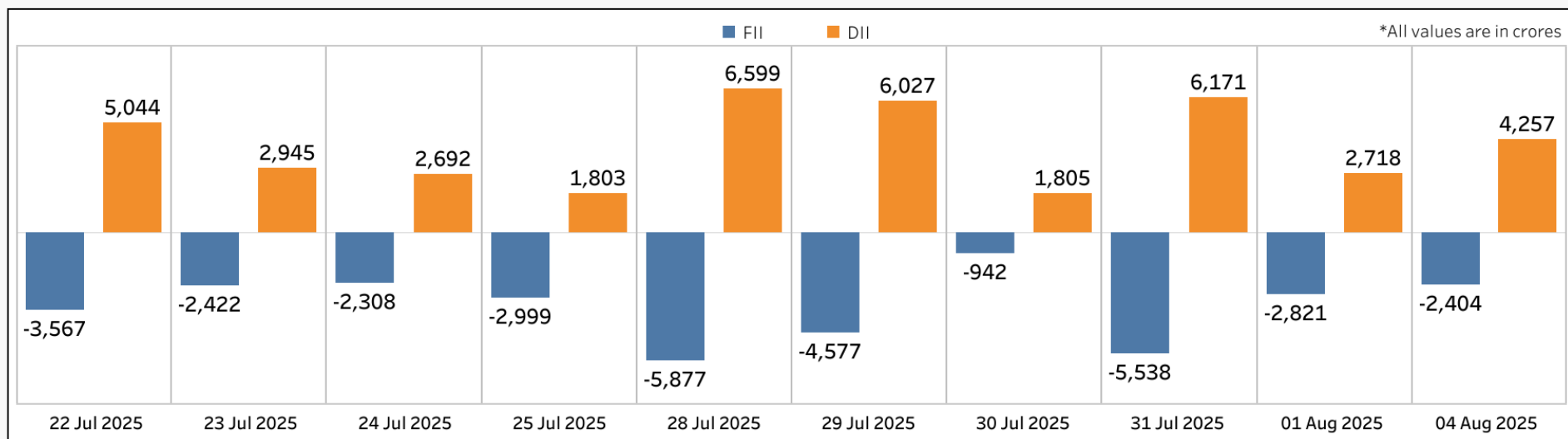
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
71,169 ▲	21,758 ▲	-49,868 ▼	77,366 ▲	0	-1,594 ▼	0	-47,966 ▼
31,092	1,234	17,260	44,831	0	1,548	0	22,017
-40,077	-20,524	-32,608	-32,535	-46			-25,949
Net O/S -46,475 Today Prev Day	Net O/S -156,950 Today Prev Day	Net O/S 168,384 Today Prev Day	Net O/S 1,350,847 Today Prev Day	Net O/S 70 Today Prev Day	Net O/S 31,693 Today Prev Day	Net O/S 24,774 Today Prev Day	Net O/S -3,965,038 Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-292,318 ▼	-13,962 ▼	139,932 ▲	-31,237 ▼	221,147 ▲	-6,202 ▼	-90,067 ▼	1,837 ▲
101,319	11,406	30,364	10,336	159,906	7,570	92,309	182
-190,999	-2,556	-109,568	-20,901	-61,241	1,368	2,242	2,019
Net O/S -97,417 Today Prev Day	Net O/S 112,827 Today Prev Day	Net O/S -421,736 Today Prev Day	Net O/S 2,168,651 Today Prev Day	Net O/S 143,821 Today Prev Day	Net O/S 12,430 Today Prev Day	Net O/S 228,577 Today Prev Day	Net O/S 445,540 Today Prev Day

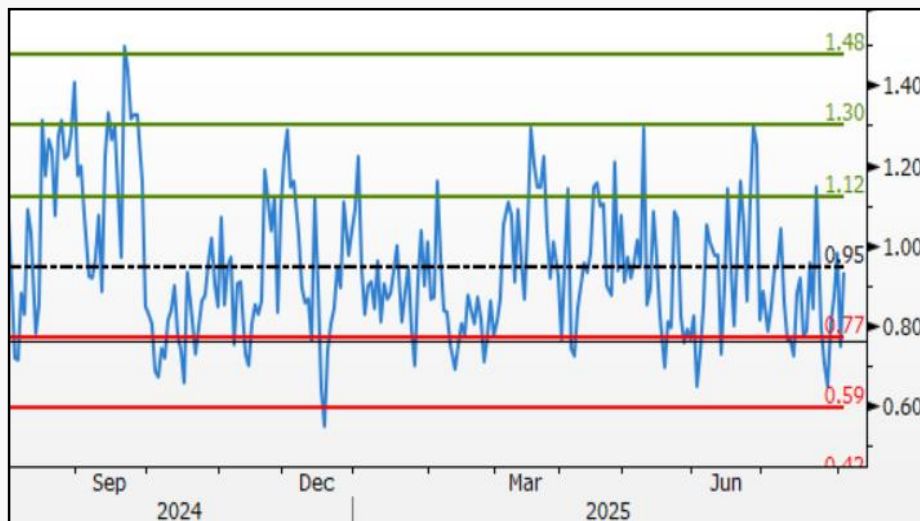
Daily Net Open Interest Change



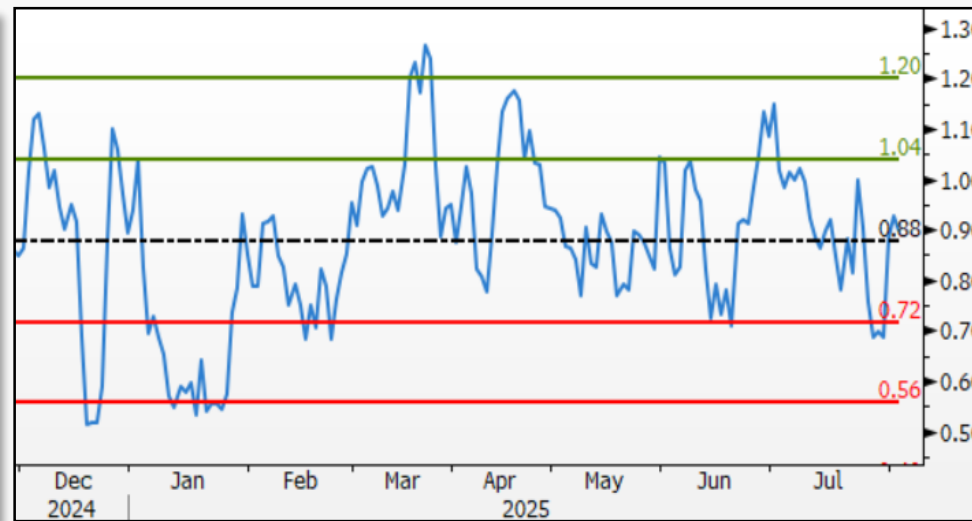
DII and FII Daily Cash Market Flows



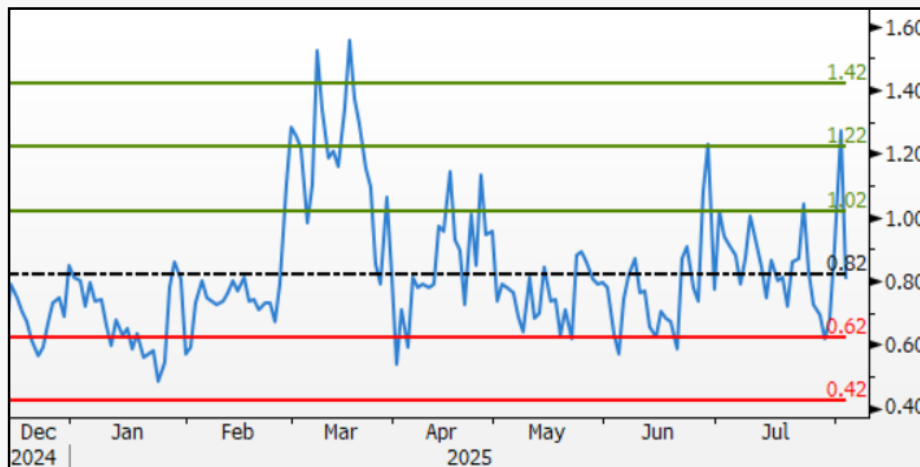
Nifty



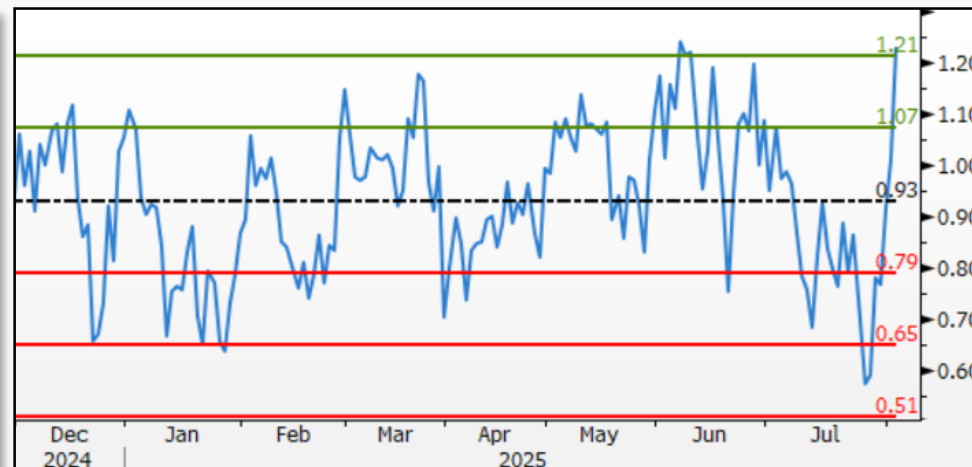
Bank Nifty



Fin Nifty

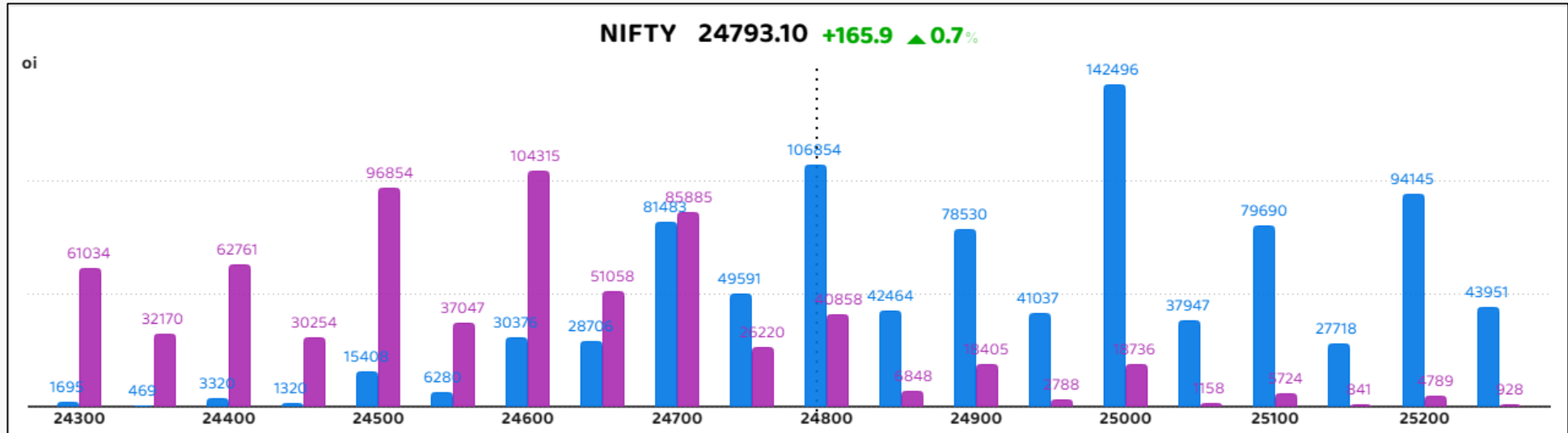


Midcap Select Nifty



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

Call  Put 



For the Nifty, the 25,000 Call and the 24,600 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 56,000 Call and the 56,000 Put saw the most amount of open interest.

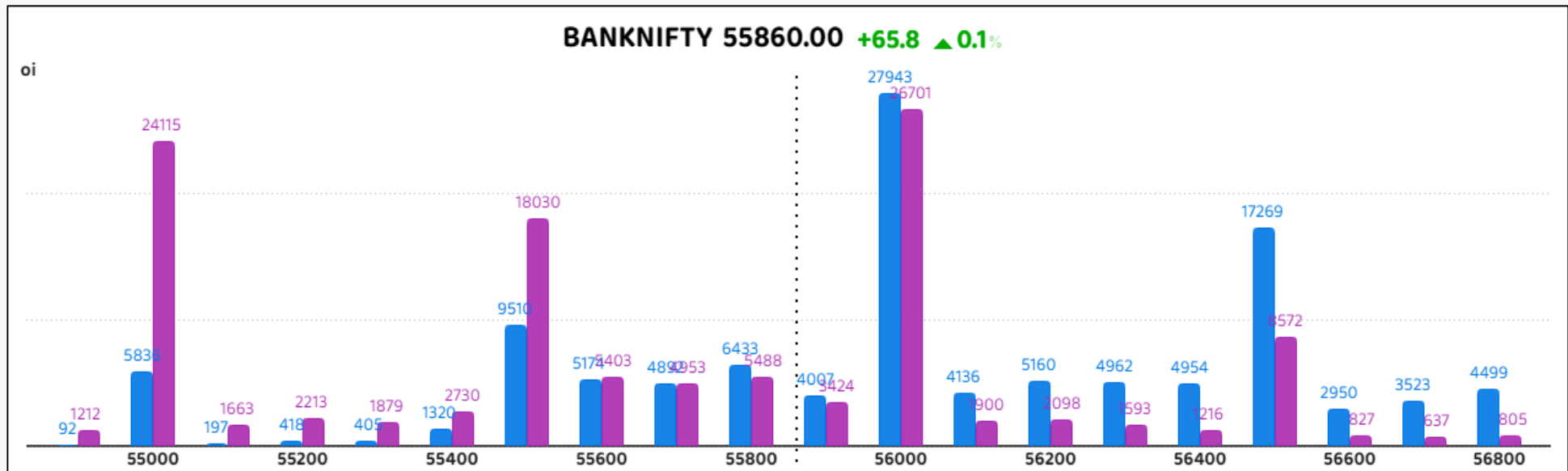
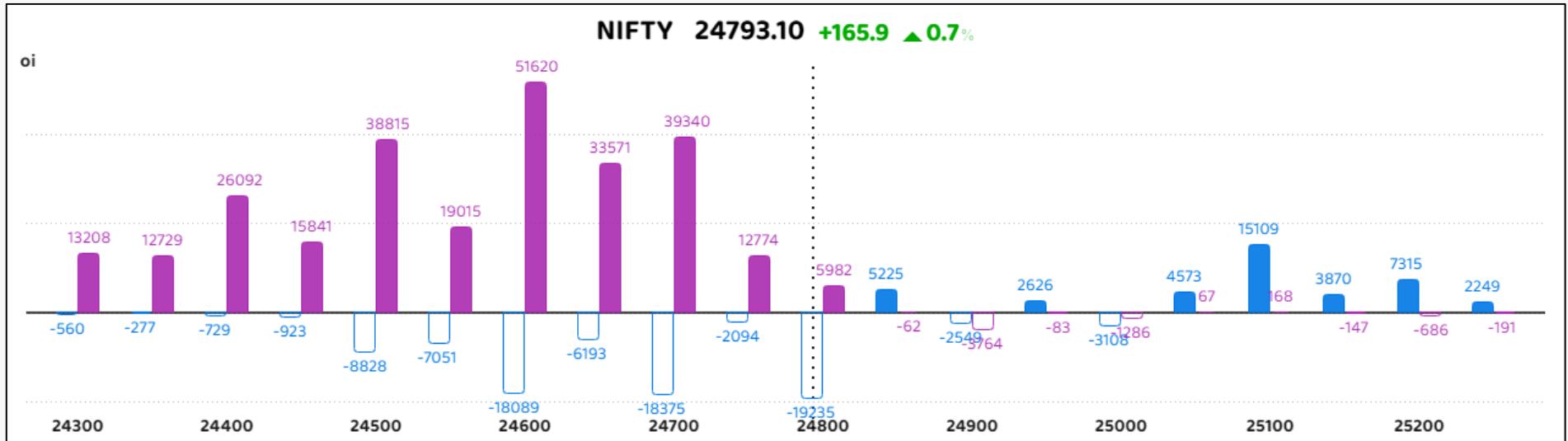


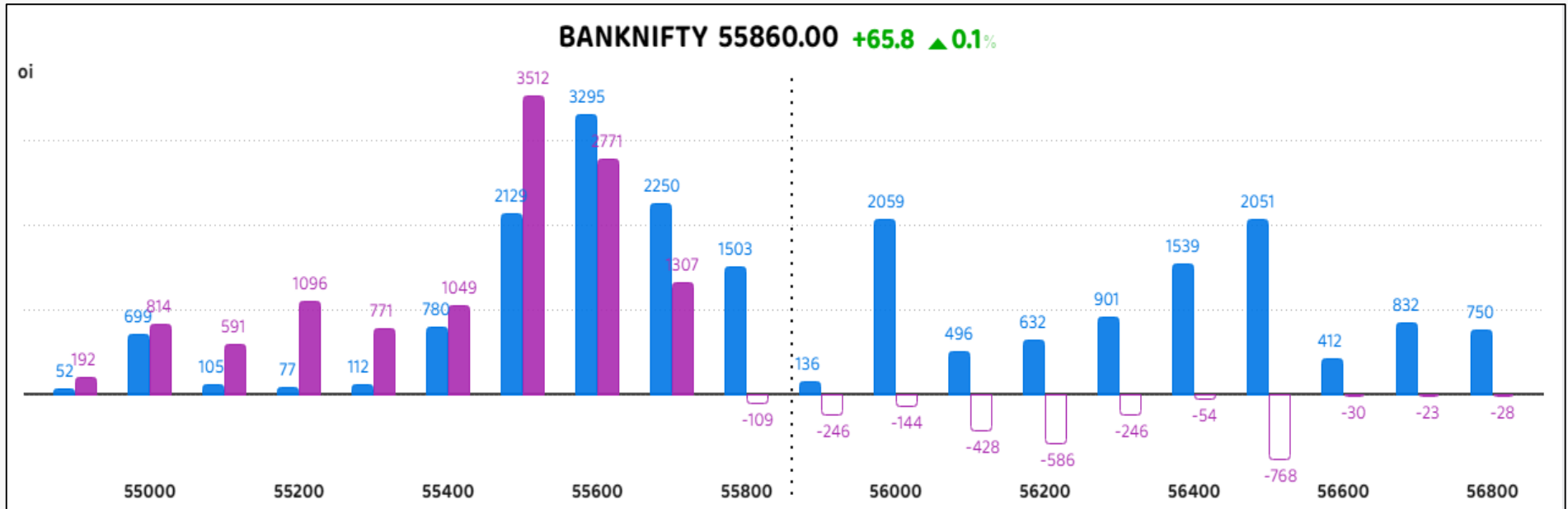
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,800 Call and the 24,600 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,600 Call & the 55,500 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
SUZLON ENERGY	65	-1.4	45.9	45.9	42.2	100.0
PNB HOUSING FINANCE	778.5	-3.7	58.6	58.6	28.8	100.0
BOSCH LTD	41115	1.8	33.7	36.2	3.3	92.5
PG ELECTROPLAST	789.3	1.4	46.8	48.9	35.6	84.3
BLUE STAR LTD	1739.4	2.5	35.6	38.3	23.4	81.9

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
LARSEN & TOUBRO	3631.1	1.2	16.4	35.5	16.4	0.0
BHARAT ELECTRONICS	389.55	3.3	22.9	60.0	22.9	0.0
ASIAN PAINTS LTD	2449.8	0.8	17.4	29.4	17.4	0.0
MAZAGON DOCK	2767.2	1.7	35.4	48.4	35.4	0.0
HERO MOTOCORP	4535.9	5.2	22.1	37.4	22.1	0.0

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
SUZLON ENERGY	65	-1.4	45.9	45.9	42.2	100.0
PNB HOUSING FINANCE	778.5	-3.7	58.6	58.6	28.8	100.0
BOSCH LTD	41115	1.8	33.7	36.2	3.3	98.2
PG ELECTROPLAST	789.3	1.4	46.8	48.9	35.6	97.0
IEX	133.98	1.4	43.5	76.3	25.8	94.0

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
LARSEN & TOUBRO	3631.1	1.2	16.4	35.5	16.4	0.0
BHARAT ELECTRONICS	389.55	3.3	22.9	60.0	22.9	0.0
ASIAN PAINTS LTD	2449.8	0.8	17.4	29.4	17.4	0.0
MAZAGON DOCK	2767.2	1.7	35.4	48.4	35.4	0.0
HERO MOTOCORP	4535.9	5.2	22.1	37.4	22.1	0.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
TUBE INVESTMENTS	2903.8	3.4	29644	6180	4.8
GRASIM INDS LTD	2787.8	2.4	14439	3466	4.2
SHREE CEMENT	30645	-0.1	25982	7069	3.7
HERO MOTOCORP	4535.9	5.2	111116	31544	3.5
ADITYA BIRLA FASHION	75.85	2.8	9332	2723	3.4

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
PIRAMAL PHARMA	195.02	2.3	2806	5034	1.8
IRCTC	729.9	1.5	4720	5333	1.1
TORRENT PHARMA	3612.8	-1.8	3811	4214	1.1
ABB INDIA LTD	5092.5	-5.5	86573	87602	1.0
NCC LTD	211.46	-1.2	3539	3168	0.9

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
KAYNES TECHNOLOGY	6297	-1.2	6582	6884	95.6
PNB HOUSING FINANCE	778.5	-3.7	19314	22469	86.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
KAYNES TECHNOLOGY	6297	-1.2	4834	4834	100.0
PIRAMAL PHARMA	195.02	2.3	2092	2092	100.0
PNB HOUSING FINANCE	778.5	-3.7	10130	11631	87.1

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
ADITYA BIRLA CAPITAL	278.45	10.7	50801	50801	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
ADITYA BIRLA CAPITAL	278.45	10.7	25952	25952	100.0

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
PNB HOUSING FINANCE	778.5	-3.7	19314	6036	3.2
DELHIVERY LTD	461.6	7.4	4849	3344	1.5
IIFL FINANCE LTD	449.6	5.2	3610	2698	1.3
FED BANK LTD	196.46	0.2	11009	9043	1.2
SUZLON ENERGY	65	-1.4	4349	3586	1.2

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
PNB HOUSING FINANCE	778.5	-3.7	10130	3559	2.8
DELHIVERY LTD	461.6	7.4	4674	2517	1.9
KAYNES TECHNOLOGY	6297	-1.2	4834	2878	1.7
PIRAMAL PHARMA	195.02	2.3	2092	1457	1.4
MANAPPURAM FINANCE	264.1	6.5	4788	3642	1.3

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
TUBE INVESTMENTS	2903.8	3.4	29644	4047	7.3
ADITYA BIRLA CAPITAL	278.45	10.7	50801	7394	6.9
MARICO LTD	723.3	1.7	41362	6405	6.5
DELHIVERY LTD	461.6	7.4	45020	8489	5.3
SUZLON ENERGY	65	-1.4	7869	1663	4.7

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
ADITYA BIRLA CAPITAL	278.45	10.7	25952	4027	6.4
ABB INDIA LTD	5092.5	-5.5	87602	13669	6.4
TUBE INVESTMENTS	2903.8	3.4	6180	1029	6.0
MARICO LTD	723.3	1.7	14874	2613	5.7
FED BANK LTD	196.46	0.2	29016	5916	4.9

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	1647900	10.0%	2364	2700	1305600	14.2%	ITC	420	14723200	0.8%	417	410	4256000	-1.6%
ADANIPTS	1400	1393650	0.8%	1389	1400	1279175	0.8%	JIOFIN	340	7491800	1.8%	334	310	6133500	-7.2%
APOLLOHOSP	7500	116125	2.6%	7308	7400	42750	1.3%	JSWSTEEL	1050	841725	-0.6%	1056	1000	496800	-5.3%
ASIANPAINT	2460	688250	0.4%	2450	2400	431750	-2.0%	KOTAKBANK	2200	1154000	10.2%	1997	2000	733600	0.2%
AXISBANK	1200	2949375	12.3%	1069	1100	1472500	2.9%	LT	3700	958825	1.9%	3631	3600	437325	-0.9%
BAJAJ-AUTO	8500	101550	3.8%	8188	8000	107325	-2.3%	M&M	3400	1107600	6.2%	3200	3100	990800	-3.1%
BAJAJFINSV	2000	827000	3.4%	1934	1900	349500	-1.7%	MARUTI	13000	324050	5.1%	12365	12000	75650	-3.0%
BAJFINANCE	900	6328500	1.7%	885	900	3799500	1.7%	NESTLEIND	2300	417000	1.0%	2277	2260	151250	-0.8%
BEL	400	8219400	2.7%	390	380	4132500	-2.5%	NTPC	340	10494000	2.4%	332	380	1831500	14.5%
BHARTIARTL	2000	1864375	4.5%	1915	1900	710600	-0.8%	ONGC	235	15180750	0.1%	235	235	4806000	0.1%
CIPLA	1600	603000	5.6%	1515	1320	268125	-12.9%	POWERGRID	300	4620800	4.2%	288	290	1548500	0.7%
COALINDIA	380	6380100	1.4%	375	370	3208950	-1.3%	RELIANCE	1500	7727500	6.3%	1412	1400	4583500	-0.8%
DRREDDY	1300	1570000	6.1%	1225	1200	380000	-2.0%	SBILIFE	1860	584625	1.6%	1832	1800	115875	-1.7%
EICHERMOT	5800	166600	3.2%	5621	5800	121800	3.2%	SBIN	820	7700250	3.1%	796	820	6682500	3.1%
ETERNAL	320	7592675	4.8%	305	300	5541125	-1.7%	SHRIRAMFIN	700	1634325	12.0%	625	600	779625	-4.0%
GRASIM	3100	208250	11.2%	2788	2800	92250	0.4%	SUNPHARMA	1800	914900	9.6%	1642	1500	960400	-8.6%
HCLTECH	1600	830900	8.5%	1474	1500	456750	1.7%	TATACONSUM	1100	677050	2.6%	1073	1000	321200	-6.8%
HDFCBANK	2000	2025650	0.4%	1992	2000	3108600	0.4%	TATAMOTORS	700	5176800	7.1%	654	800	2581600	22.4%
HDFCLIFE	800	1698400	8.1%	740	740	740300	0.0%	TATASTEEL	180	21538000	12.8%	160	140	7991500	-12.3%
HEROMOTOCO	4600	611250	1.4%	4536	4500	141900	-0.8%	TCS	3200	2225825	4.1%	3074	3000	1107050	-2.4%
HINDALCO	700	2006200	1.8%	688	680	656600	-1.1%	TECHM	1600	964200	8.5%	1475	1500	328200	1.7%
HINDUNILVR	2600	1920300	2.2%	2544	2400	727800	-5.6%	TITAN	3400	327425	1.3%	3356	3400	240800	1.3%
ICICIBANK	1500	3474100	2.5%	1463	1400	1293600	-4.3%	TRENT	5500	288600	4.8%	5249	5000	231500	-4.7%
INDUSINDBK	900	1645700	11.9%	804	800	1295700	-0.5%	ULTRACEMCO	12300	96400	0.4%	12257	12000	33600	-2.1%
INFY	1600	3458800	8.1%	1481	1400	1147600	-5.4%	WIPRO	270	6258000	9.7%	246	250	3435000	1.6%

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

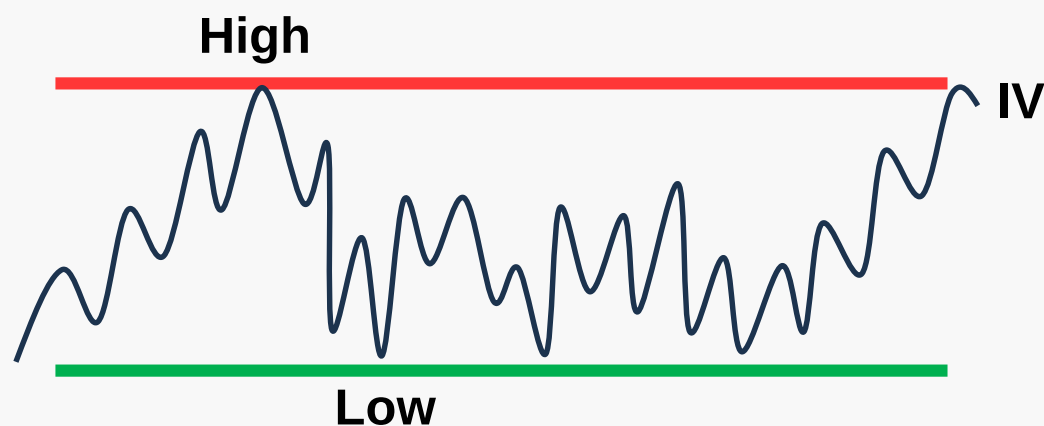
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

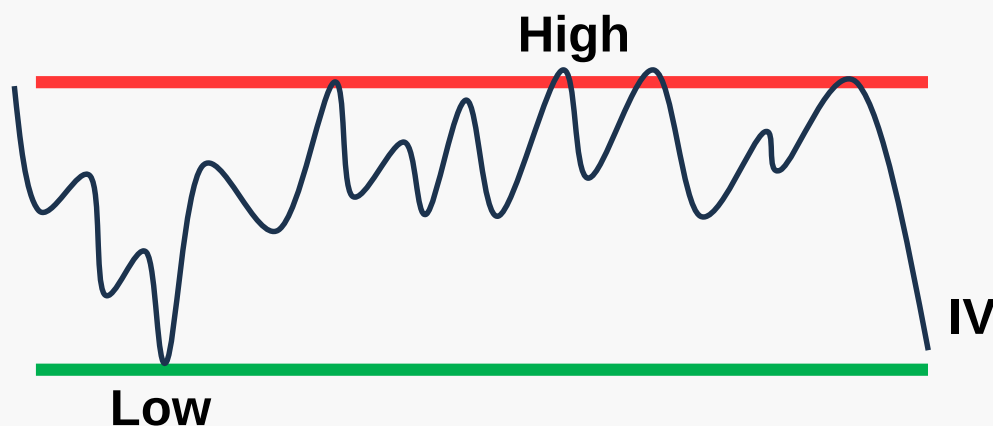
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

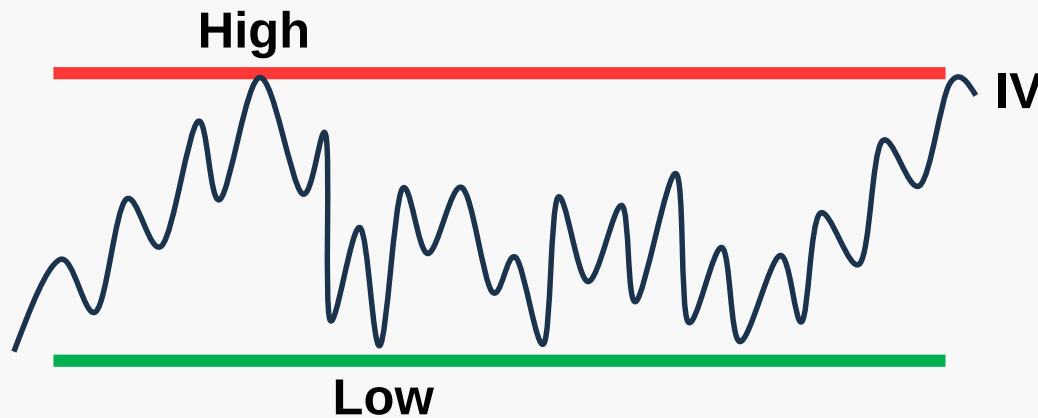


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

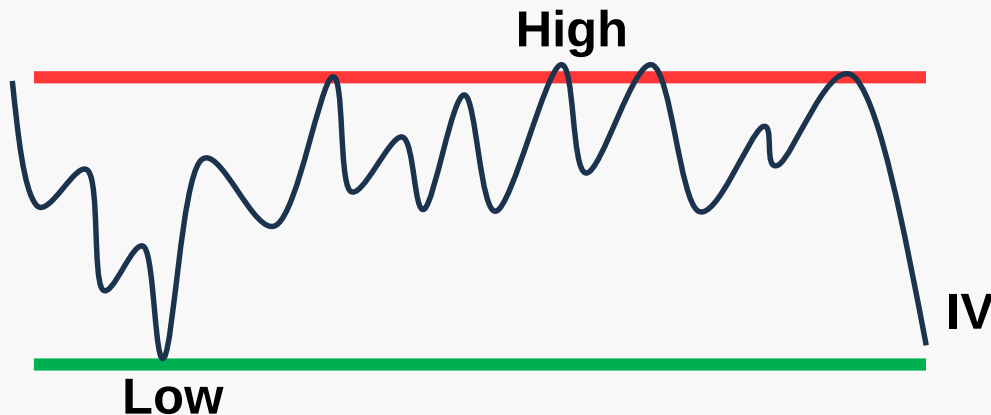


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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