



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	24,854	1.1%▲
Open Interest (OI)	1,78,69,475	0.4%▼
Change in OI (abs)	1,78,69,475	69,810▼
Premium / Discount (Abs)	88	16▼
<b>Inference</b>	<b>Short Covering</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	59,375	0.5%▲
Open interest (OI)	25,48,320	2.7%▲
Change in OI (abs)	25,48,320	66,300▲
Premium / Discount (Abs)	319	26▼
<b>Inference</b>	<b>Long Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	17.86	3.28▼
Nifty ATM IV (%)	15.84	3.31▼
Bank Nifty ATM IV (%)	15.99	2.48▼
PCR (Nifty)	1.01	0.06▲
PCR (Bank Nifty)	0.92	0.01▼

The FII Long Ratio in Index Futures **jump** to 14.6%, **up** from 13.7 % in the previous session.

## Single Stock Futures Movers

### Long Buildup (Open Interest Higher + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
ANGELONE	3,67,37,500	8.8%	224.63	1.2%
BANKBARODA	9,80,57,700	8.1%	303.35	0.9%
BPCL	3,87,77,150	7.5%	361.5	1.3%
IOC	9,51,64,875	7.5%	170.99	0.7%
LODHA	95,63,400	5.4%	920.85	0.4%

### Short Buildup (Open Interest Higher + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
KPITTECH	66,49,550	6.9%	721.2	-2.5%
SBIN	6,07,41,750	5.5%	1174.5	-0.5%
MPHASIS	54,50,500	4.0%	2242.4	-1.5%
MANAPPURAM	5,13,75,000	3.0%	268.6	-0.7%
COFORGE	2,71,18,875	2.8%	1158.2	-1.2%

### Short Covering (Open Interest Lower + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
PETRONET	3,54,04,600	-8.7%	292.45	4.4%
BDL	52,69,600	-7.1%	1283	2.2%
BSE	86,67,375	-5.0%	2765	5.2%
HINDPETRO	4,34,74,725	-4.8%	417.9	3.7%
PAGEIND	2,29,635	-4.5%	31680	1.8%

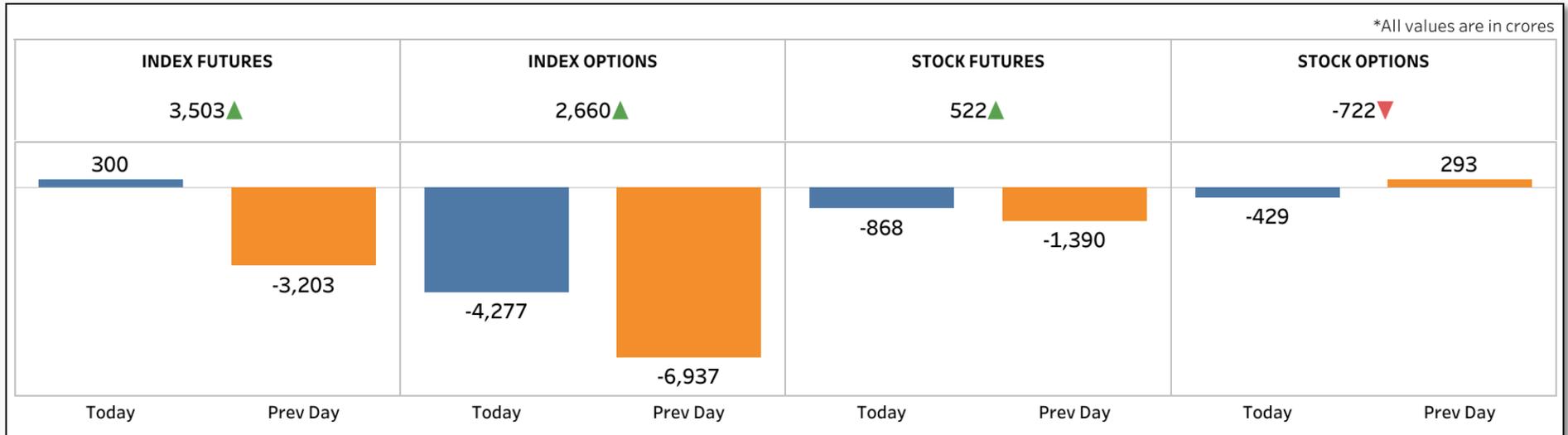
### Long Unwinding (Open Interest Lower + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
KEI	15,67,825	-7.4%	4939	-0.8%
ONGC	11,70,00,000	-4.8%	277.3	-0.1%
OIL	1,93,73,200	-4.1%	481.25	-1.8%
MUTHOOTFIN	42,65,525	-2.6%	3318.5	-1.1%
POLICYBZR	84,17,500	-2.0%	1478.8	-0.3%

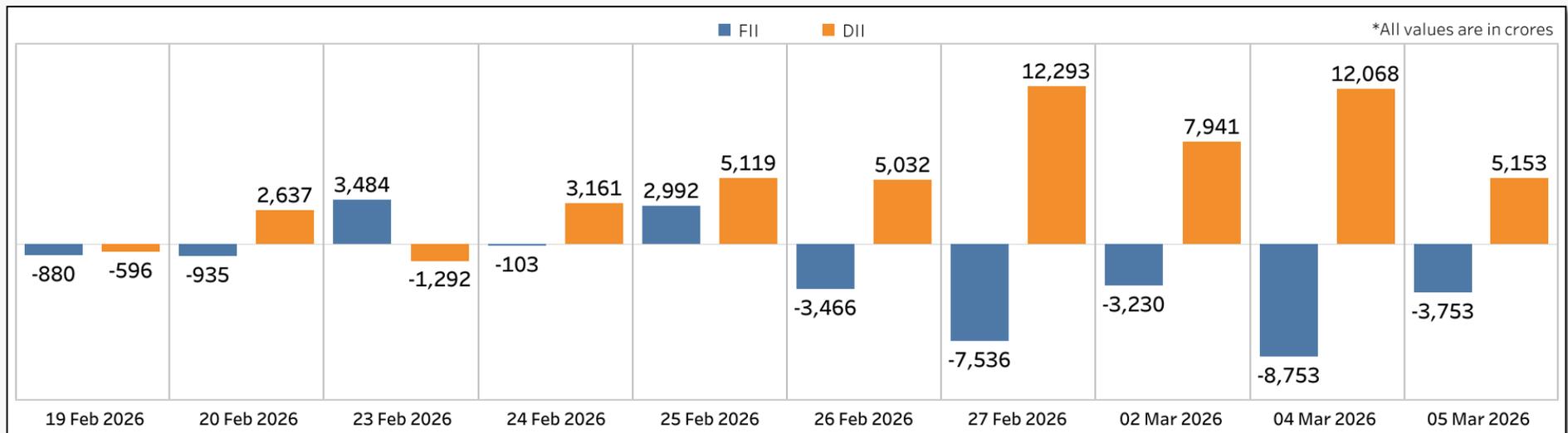
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix



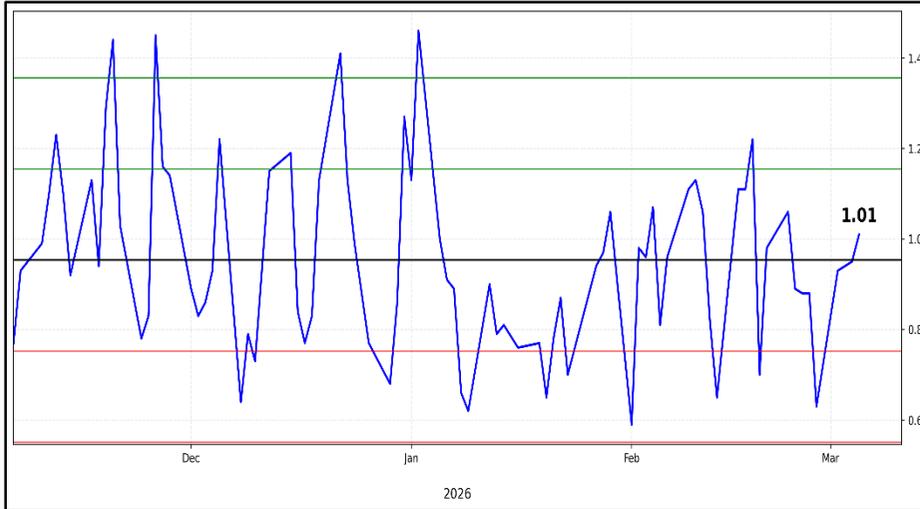
## Daily Net Open Interest Change



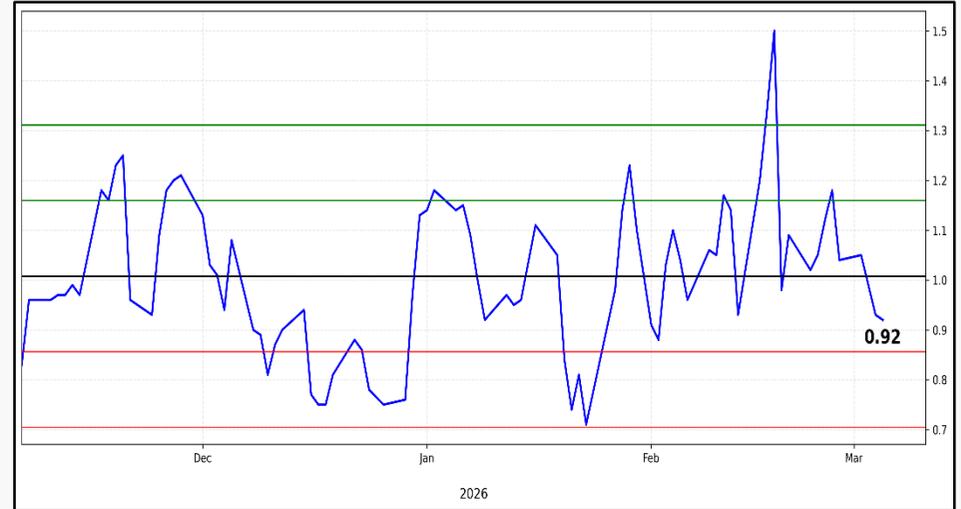
## DII and FII Daily Cash Market Flows



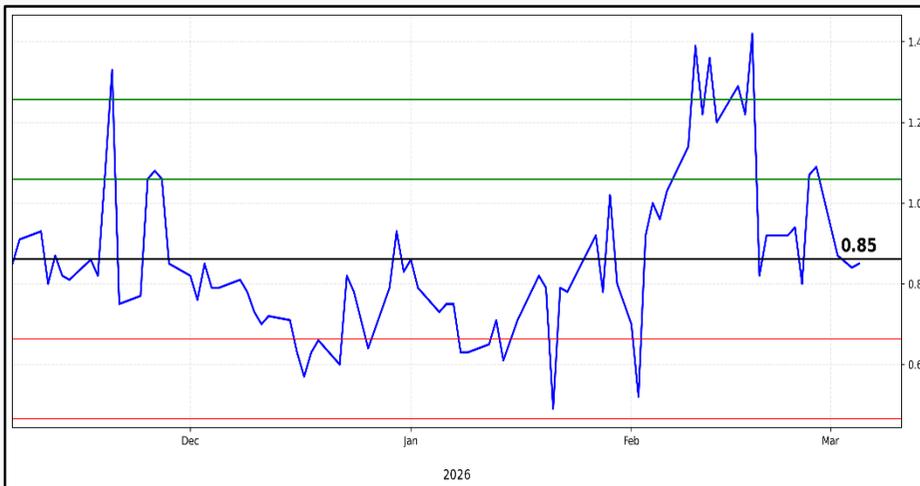
### Nifty



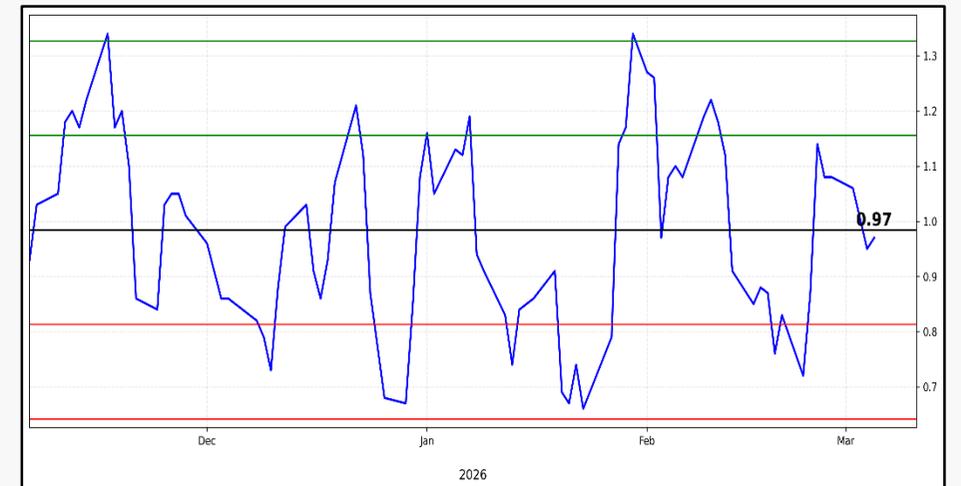
### Bank Nifty



### Fin Nifty



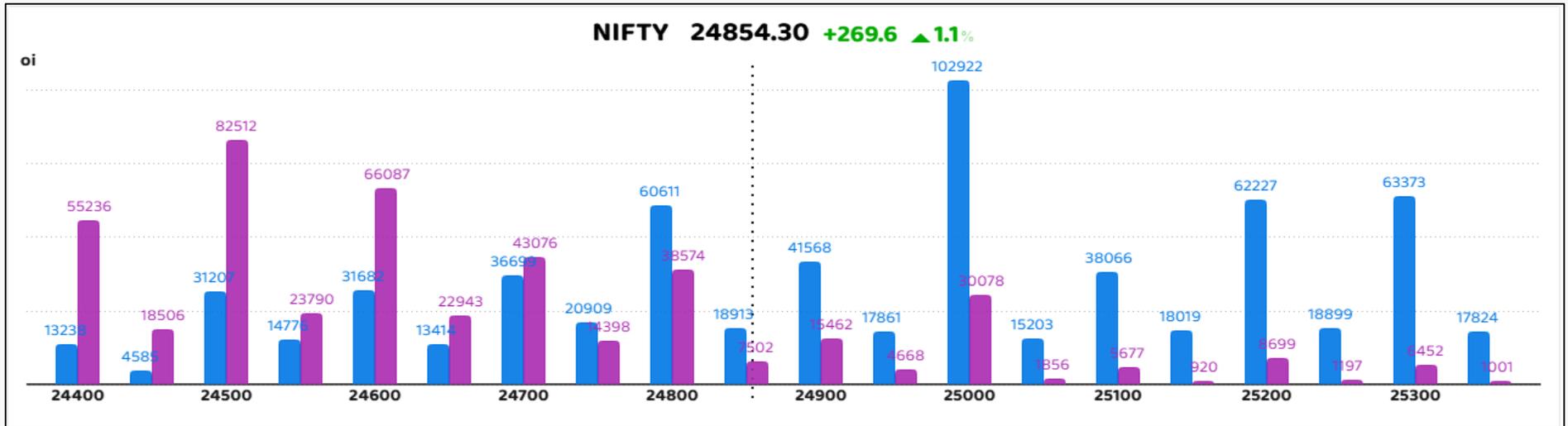
### Midcap Select Nifty



*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 25,000 Call and 24,500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 60,000 Call and the 59,000 Put saw the most amount of open interest.

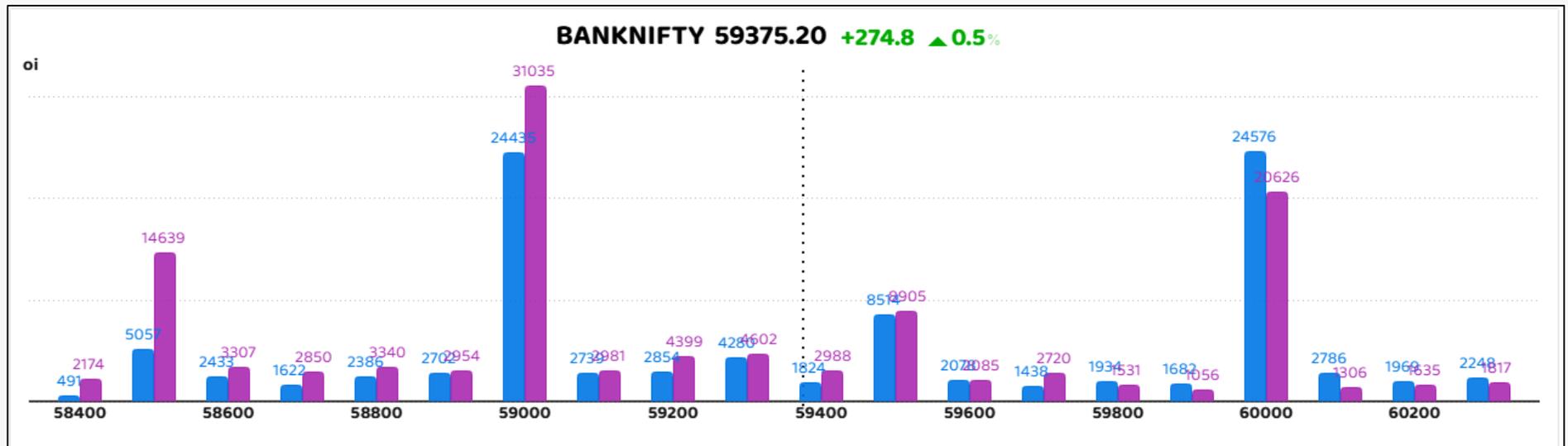
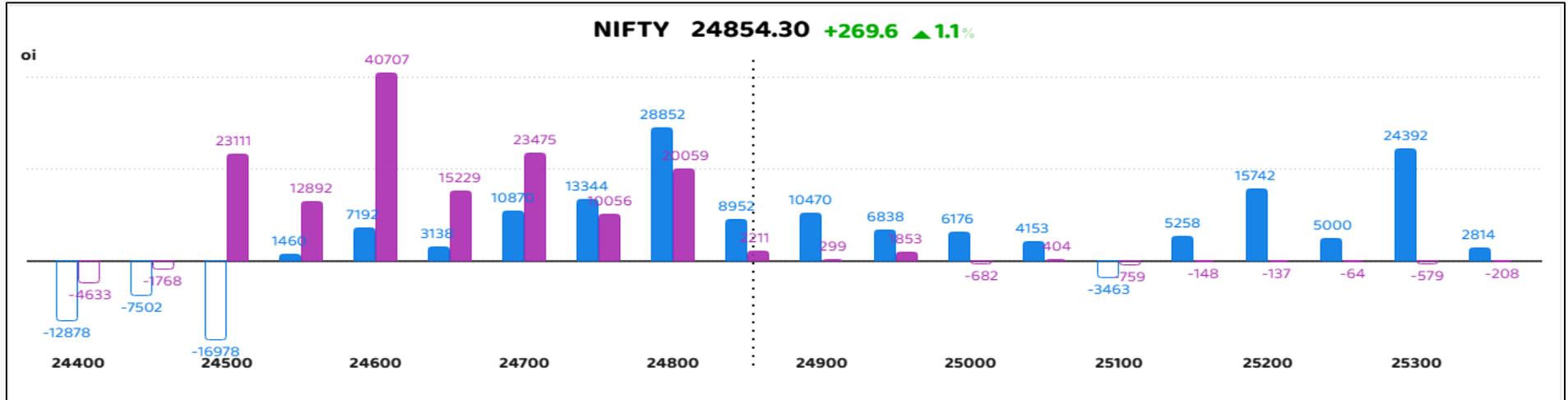


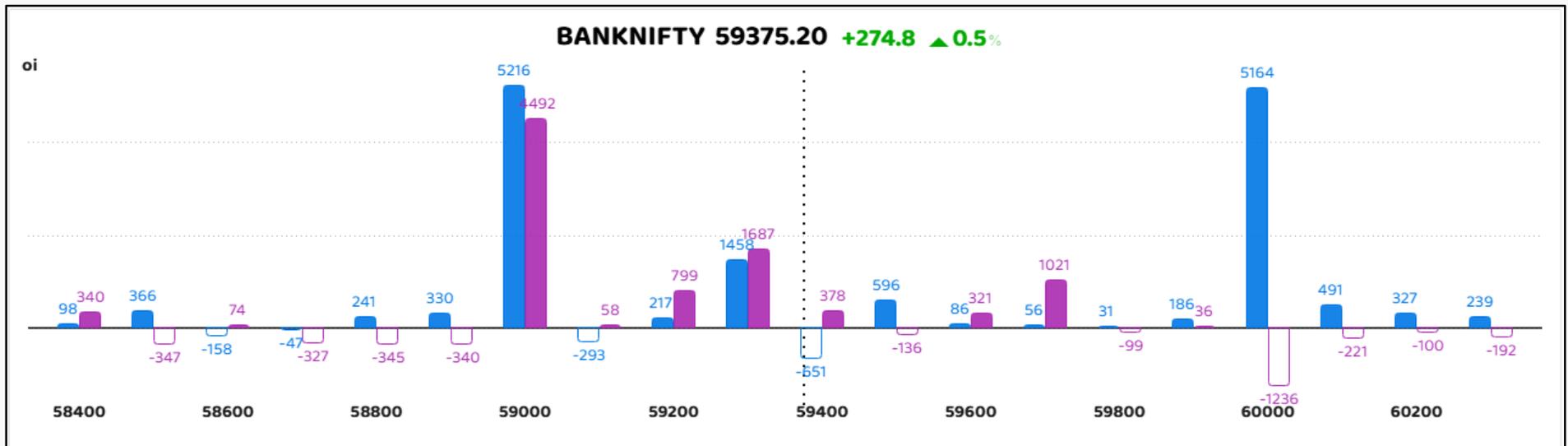
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

## 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 60,000 Call & the 59,000 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
MARUTI SUZUKI IN	14,415.0	1.8	27.7	29.0	11.3	92.6
HINDUSTAN UNILEV	2,255.0	0.3	23.1	25.3	0.8	90.9
HDFC BANK LTD	877.8	1.1	24.4	28.0	1.5	86.5
INDIAN ENERGY EX	121.6	2.6	64.9	76.3	8.0	83.3
MCX INDIA LTD	2,553.5	3.0	50.7	56.4	26.3	81.0

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
BAJAJ AUTO LTD	9,804.5	1.6	20.8	36.4	18.6	12.2
HDFC LIFE INSURA	684.3	0.0	23.8	68.4	16.6	13.9
NTPC LTD	378.1	3.4	29.1	116.6	14.9	14.0
ADANI PORTS AND	1,499.3	4.5	31.0	99.7	19.0	14.9
GAIL INDIA LTD	156.7	1.4	34.3	91.4	19.4	20.7

## Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INDIAN RAILWAY F	98.9	1.1	70.2	70.2	4.2	100.0
GMR AIRPORTS LTD	98.0	2.9	55.8	55.8	21.5	100.0
NHPC LTD	74.2	2.7	75.1	75.1	21.6	100.0
NBCC INDIA LTD	86.9	1.4	68.7	68.7	17.7	100.0
BLUE STAR LTD	1,946.7	5.6	42.0	42.0	20.3	100.0

## Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ADANI ENERGY SOL	987.9	2.9	21.7	61.7	20.6	0.5
BAJAJ AUTO LTD	9,804.5	1.6	20.8	36.4	18.6	12.5
STEEL AUTHORITY	156.2	0.3	28.0	91.3	0.6	17.6
YES BANK LTD	20.2	1.1	26.8	55.3	8.1	21.4
BAJAJ FINSERV LT	1,911.8	1.2	21.5	33.8	13.0	27.9

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
BLUESTARCO	1,946.8	5.6	10,749	1,625	6.6
SUZLON	40.2	0.8	20,058	3,937	5.1
BDL	1,280.6	0.9	36,518	7,613	4.8
RVNL	279.3	-1.0	23,032	5,289	4.4
MAZDOCK	2,352.4	8.6	1,79,946	41,916	4.3

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
DALBHARAT	1,928.6	1.7	1,203	1,703	1.4
SONACOMS	511.0	1.9	1,437	2,006	1.4
LODHA	916.2	0.4	3,554	4,254	1.2
MAXHEALTH	1,058.2	0.4	6,465	7,451	1.2
HINDPETRO	418.4	4.2	17,431	17,747	1.0

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
ETERNAL	240.2	-0.2	45,866	44,775	100.0
POLYCAB	8,564.0	3.4	9,020	8,994	100.0
TMPV	355.2	1.1	53,943	50,733	100.0
LTM	4,306.4	-1.0	8,511	7,411	100.0
INDIGO	4,512.6	2.7	34,908	30,231	100.0

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
POLYCAB	8,564.0	3.4	9,654	8,872	100.0
PETRONET	293.0	4.6	9,576	9,111	100.0
LTM	4,306.4	-1.0	5,275	4,740	100.0
IRFC	98.8	1.1	10,014	9,914	100.0
INDIGO	4,512.6	2.7	25,621	23,050	100.0

**Call Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
COALINDIA	449.4	3.3	1,33,554	93,052	100.0
HINDPETRO	418.4	4.2	17,431	17,246	100.0
HINDALCO	955.0	3.6	1,21,421	85,151	100.0
INDIGO	4,512.6	2.7	64,186	63,999	100.0
IDEA	10.2	2.3	29,453	26,129	100.0

**Put Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
BEL	460.0	2.9	67,543	58,877	100.0
COALINDIA	449.4	3.3	57,689	39,903	100.0
LTM	4,306.4	-1.0	6,529	3,799	100.0
NATIONALUM	396.0	6.0	23,004	20,071	100.0
MAZDOCK	2,352.4	8.6	41,916	16,449	100.0

**Call Open Interest to 20-day Average**

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
INDIGO	4,512.6	2.7	34,908	19,155	1.8
WAAREEENER	2,646.2	0.5	18,185	11,406	1.6
IDFCFIRSTB	70.4	0.5	33,158	22,528	1.5
PREMIERENE	720.1	2.0	6,639	4,939	1.3
ETERNAL	240.2	-0.2	45,866	35,547	1.3

**Put Open Interest to 20-day Average**

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
PREMIERENE	720.1	2.0	6,499	3,453	1.9
INDIGO	4,512.6	2.7	25,621	16,542	1.5
WAAREEENER	2,646.2	0.5	10,596	6,963	1.5
POLYCAB	8,564.0	3.4	9,654	6,437	1.5
PETRONET	293.0	4.6	9,576	6,521	1.5

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
MAZDOCK	2,352.4	8.6	1,79,946	19,483	9.2
NATIONALUM	396.0	6.0	57,162	14,760	3.9
COALINDIA	449.4	3.3	1,33,554	36,170	3.7
HINDALCO	955.0	3.6	1,21,421	39,013	3.1
PHOENIXLTD	1,633.6	1.4	9,045	3,348	2.7

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
MAZDOCK	2,352.4	8.6	41,916	6,681	6.3
COALINDIA	449.4	3.3	57,689	16,822	3.4
PETRONET	293.0	4.6	21,086	7,421	2.8
NATIONALUM	396.0	6.0	23,004	8,297	2.8
HINDPETRO	418.4	4.2	17,747	6,508	2.7

## 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	2200	1146699	5.3%	2089	2200	804945	5.3%	JIOFIN	300	6044200	23.4%	243	260	4185350	7.0%
ADANIPTS	1500	978975	0.0%	1499	1400	878750	-6.6%	JSWSTEEL	1300	678375	4.2%	1248	1200	413100	-3.9%
APOLLOHOSP	7700	90625	-1.0%	7775	7000	131500	-10.0%	KOTAKBANK	440	3604000	8.0%	407	400	2382000	-1.8%
ASIANPAINT	2500	612500	9.3%	2288	2300	612000	0.5%	LT	4100	977725	1.5%	4039	3900	547575	-3.4%
AXISBANK	1350	2606875	0.1%	1349	1340	981250	-0.7%	M&M	4000	664000	19.5%	3348	3400	381400	1.6%
BAJAJ-AUTO	10500	326550	7.1%	9805	9000	78750	-8.2%	MARUTI	14500	180600	0.6%	14415	14000	117900	-2.9%
BAJAJFINSV	2100	809250	9.8%	1912	1920	430750	0.4%	MAXHEALTH	1100	337050	4.0%	1058	1100	205275	4.0%
BAJFINANCE	1100	1683000	14.3%	962	960	1530750	-0.2%	NESTLEIND	1280	416000	2.3%	1251	1200	178000	-4.1%
BEL	500	6187350	8.7%	460	440	2911275	-4.3%	NTPC	400	10170000	5.8%	378	360	3096000	-4.8%
BHARTIARTL	2000	2407775	4.9%	1907	1900	926725	-0.4%	ONGC	300	9490500	8.6%	276	265	3568500	-4.1%
CIPLA	1500	618000	13.1%	1326	1260	367875	-5.0%	POWERGRID	310	5572700	3.5%	299	300	2437700	0.2%
COALINDIA	455	2565000	1.2%	449	410	1952100	-8.8%	RELIANCE	1500	4681500	8.0%	1389	1300	2947500	-6.4%
DRREDDY	1360	688125	3.5%	1314	1300	321250	-1.0%	SBILIFE	2100	556500	8.0%	1945	1920	122625	-1.3%
EICHERMOT	9000	190300	16.1%	7755	7500	155300	-3.3%	SBIN	1200	3726750	2.6%	1170	1100	3120000	-5.9%
ETERNAL	300	15136850	24.9%	240	250	6513550	4.1%	SHRIRAMFIN	1100	1277925	5.8%	1040	1000	1461900	-3.8%
GRASIM	2860	346250	5.0%	2724	2660	101500	-2.4%	SUNPHARMA	1800	1770650	0.9%	1785	1780	350350	-0.3%
HCLTECH	1500	959700	10.8%	1354	1360	367500	0.4%	TATACONSUM	1300	624800	16.2%	1119	1100	230450	-1.7%
HDFCBANK	900	8785700	2.5%	878	870	3171300	-0.9%	TMPV	400	6507200	12.6%	355	350	2172800	-1.5%
HDFCLIFE	750	2365000	9.6%	684	650	709500	-5.0%	TATASTEEL	220	14443000	9.7%	201	200	8673500	-0.3%
HINDALCO	1000	1437100	4.7%	955	900	1109500	-5.8%	TCS	3000	1805300	16.3%	2579	2600	798875	0.8%
HINDUNILVR	2500	982500	10.9%	2255	2200	294900	-2.4%	TECHM	1440	1644000	8.0%	1333	1340	1542000	0.5%
ICICIBANK	1400	4950400	3.1%	1358	1400	2580200	3.1%	TITAN	4300	256550	0.6%	4275	4000	184100	-6.4%
INDIGO	4600	1152450	1.9%	4513	4300	428550	-4.7%	TRENT	4500	297300	18.7%	3791	3700	144400	-2.4%
INFY	1400	4804400	7.2%	1306	1280	2809200	-2.0%	ULTRACEMCO	13000	100900	5.8%	12288	11500	41700	-6.4%
ITC	320	14982400	2.7%	312	320	4108800	2.7%	WIPRO	210	9570000	7.3%	196	200	3867000	2.2%

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

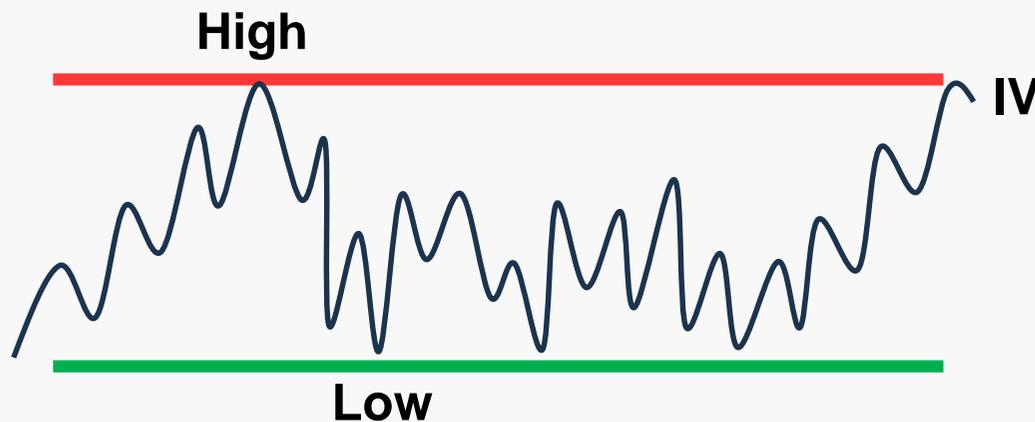
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

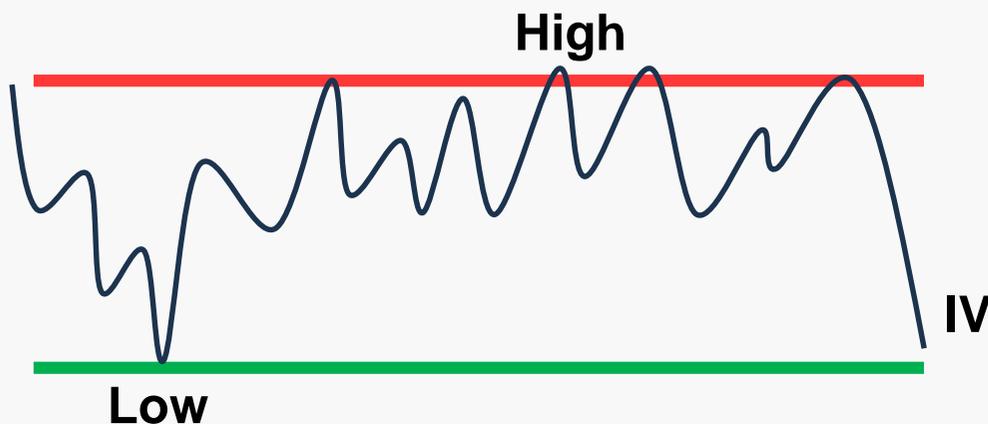
*\*ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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](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

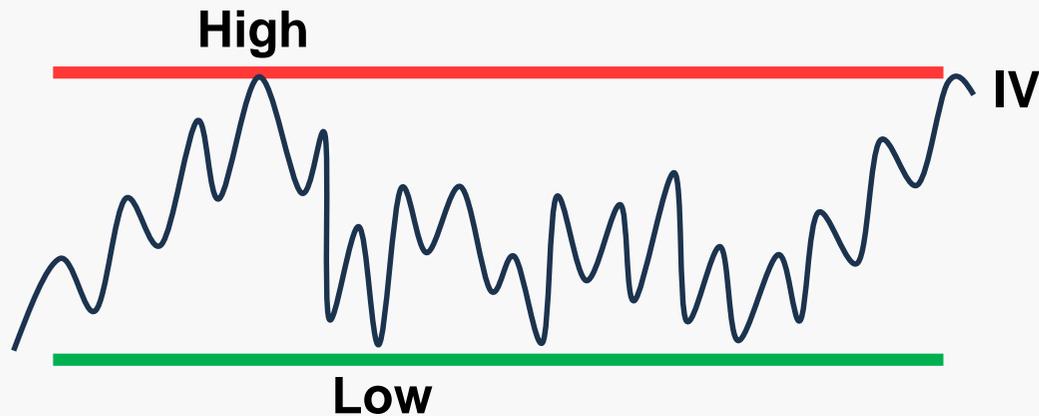


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

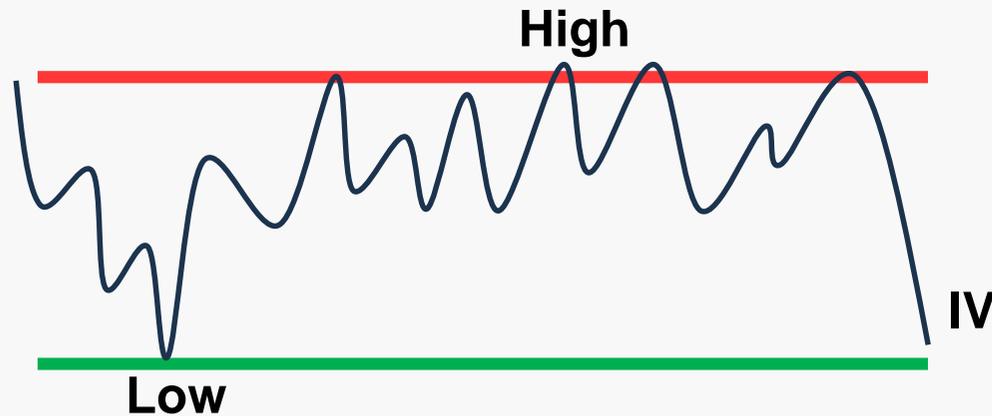


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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