



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	24,585	1.6% ▼
Open Interest (OI)	1,79,39,285	5.2% ▲
Change in OI (abs)	1,79,39,285	8,86,080 ▲
Premium / Discount (Abs)	104	12 ▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	59,100	1.9% ▼
Open interest (OI)	24,82,020	19.2% ▲
Change in OI (abs)	24,82,020	3,99,930 ▲
Premium / Discount (Abs)	345	29 ▼
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	21.14	4.01 ▲
Nifty ATM IV (%)	19.14	3.67 ▲
Bank Nifty ATM IV (%)	18.47	3.92 ▲
PCR (Nifty)	0.95	0.04 ▼
PCR (Bank Nifty)	0.93	0.12 ▼

The FII Long Ratio in Index Futures **drop** to 13.7%, **down** from 16.3 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
OIL	2,01,92,200	3.3%	490.2	0.6%
MPHASIS	52,40,675	3.1%	2277.3	0.5%
DIXON	26,49,800	2.8%	10175	0.0%
SWIGGY	5,01,16,300	1.7%	294.7	2.0%
BHARTIARTL	6,10,22,775	0.9%	1912.3	1.6%

Short Buildup (Open Interest Higher + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
FEDERALBNK	6,33,55,000	13.0%	287.8	-2.9%
LODHA	90,74,250	12.6%	917.6	-5.5%
AUBANK	2,19,30,000	10.2%	949.6	-0.7%
CAMS	74,22,750	8.5%	633.25	-3.3%
PETRONET	3,87,80,900	8.5%	280.15	-9.6%

Short Covering (Open Interest Lower + Price Higher)

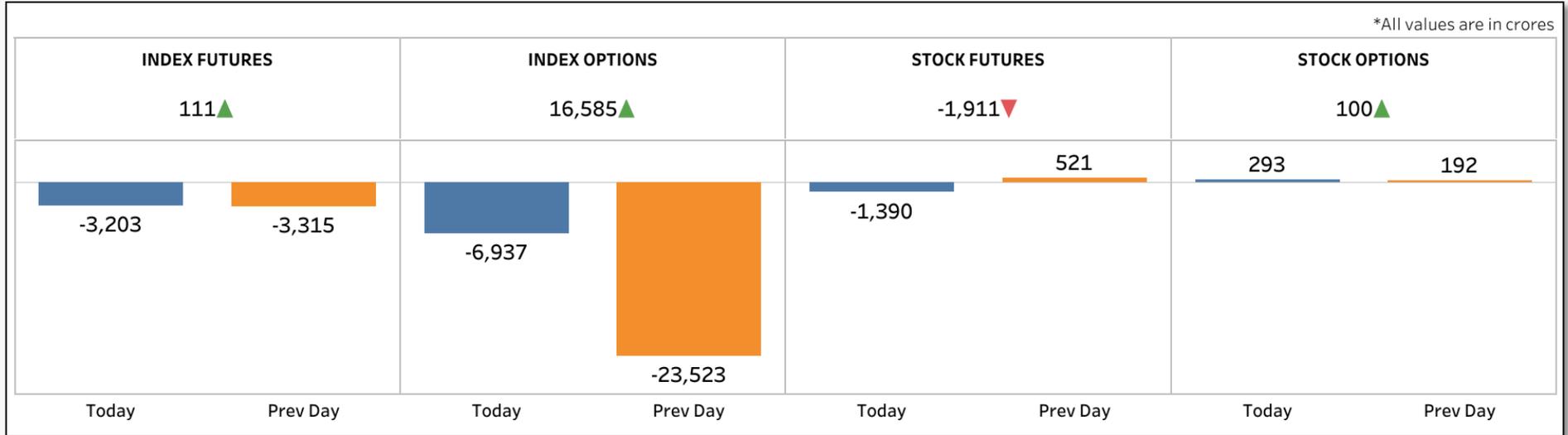
Symbol	Open Interest	Chg (%)	Price	Chg (%)
SOLARINDS	7,24,800	-6.4%	14550	3.8%
NATIONALUM	5,78,51,250	-5.8%	374.4	2.8%
POLICYBZR	85,85,150	-4.8%	1483	0.7%
INFY	8,21,05,600	-3.9%	1311.7	1.5%
TECHM	1,96,12,200	-3.2%	1354.2	0.4%

Long Unwinding (Open Interest Lower + Price Lower)

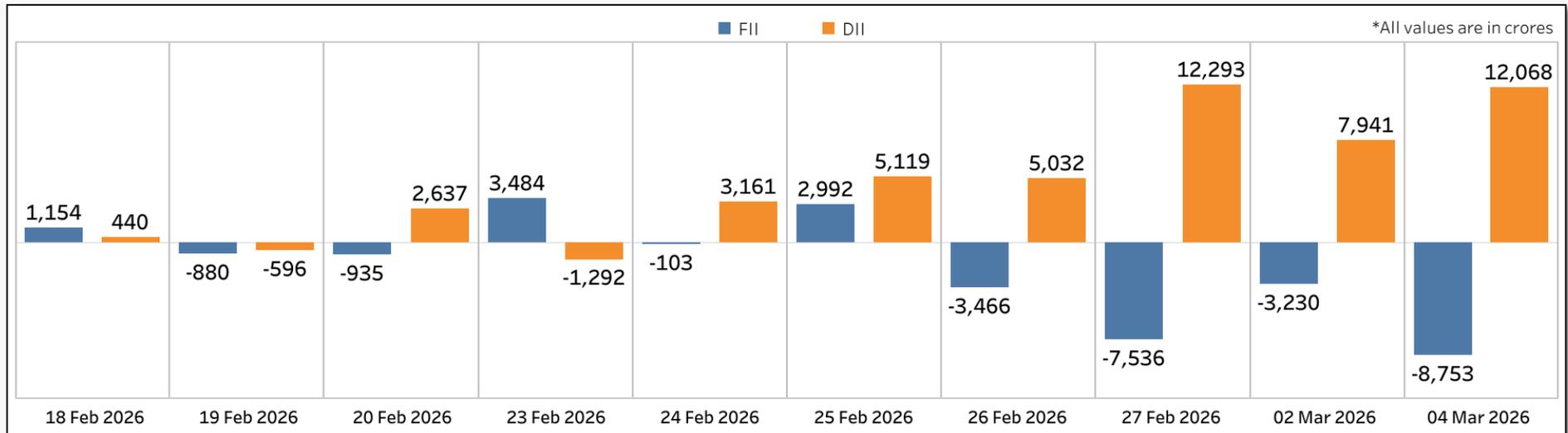
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KEI	16,93,650	-6.9%	4978.5	-2.4%
UNOMINDA	65,54,350	-6.5%	1126.7	-1.7%
APLAPOLLO	48,67,450	-5.8%	2122.5	-4.7%
INDIANB	74,01,000	-5.6%	942.35	-3.6%
BLUESTARCO	26,18,525	-5.4%	1846.4	-3.6%

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

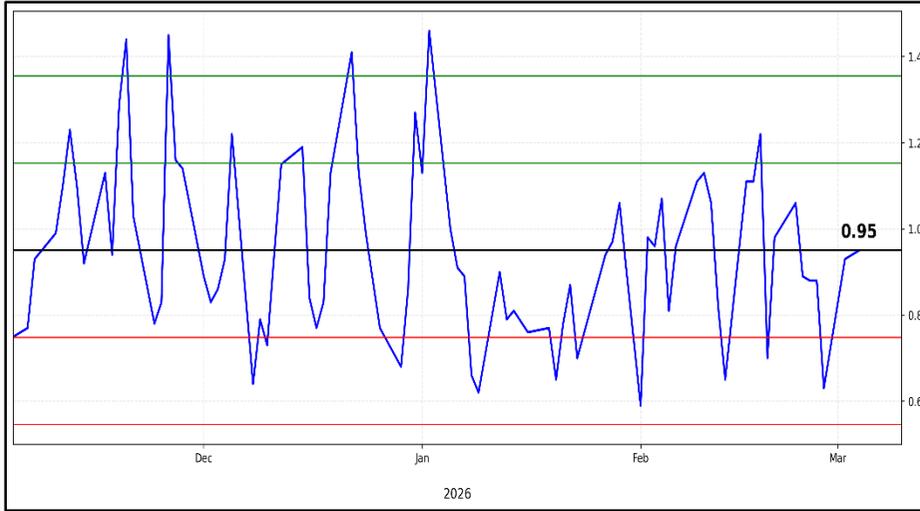
Daily Net Open Interest Change



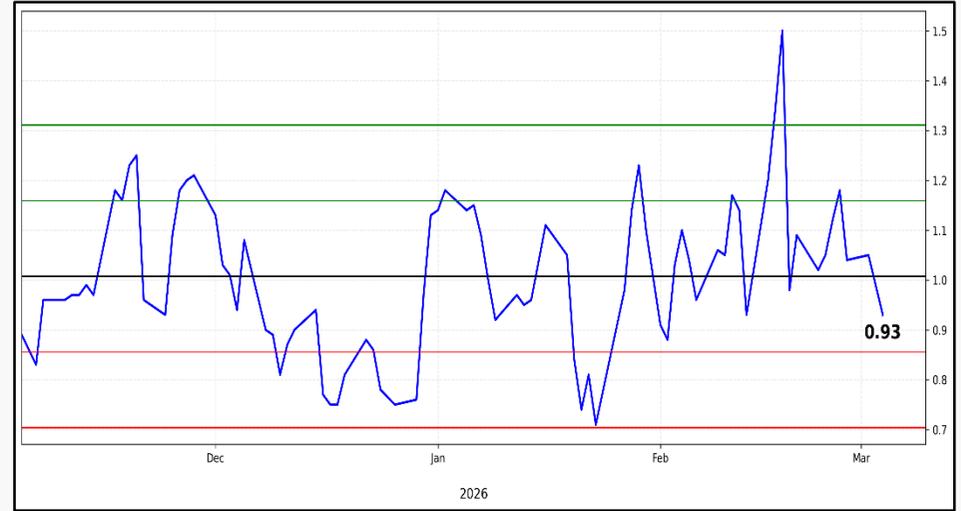
DII and FII Daily Cash Market Flows



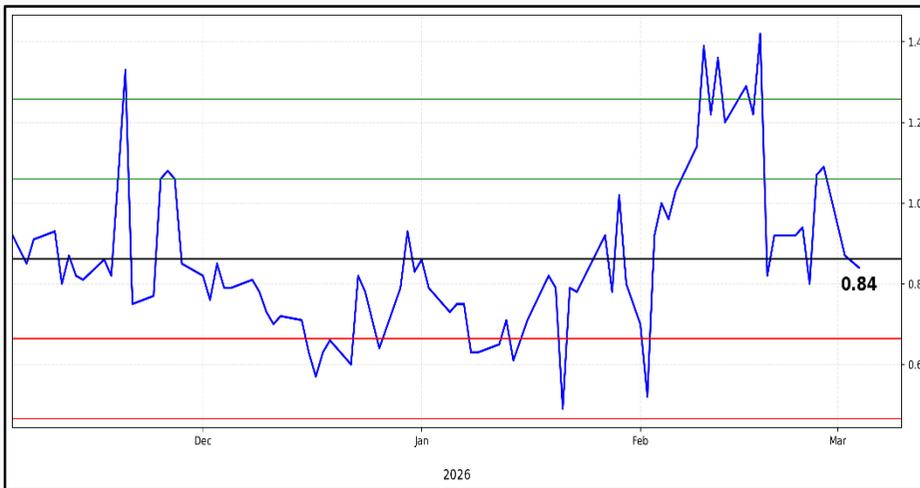
Nifty



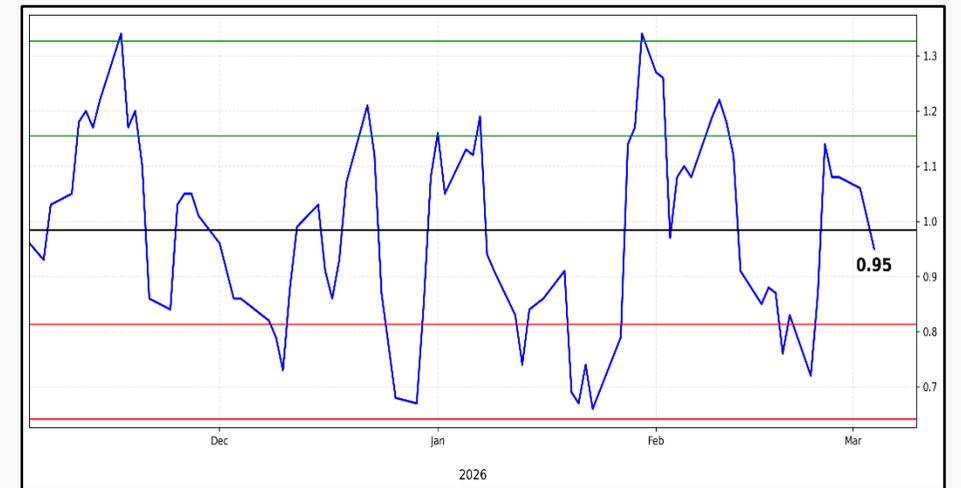
Bank Nifty



Fin Nifty



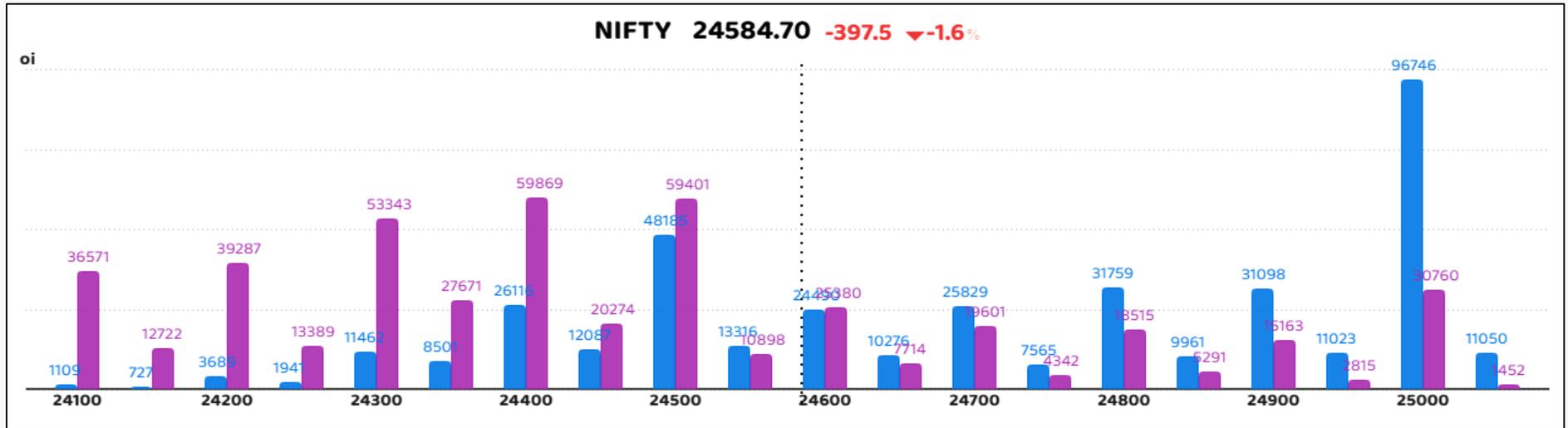
Midcap Select Nifty



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 24,400 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.

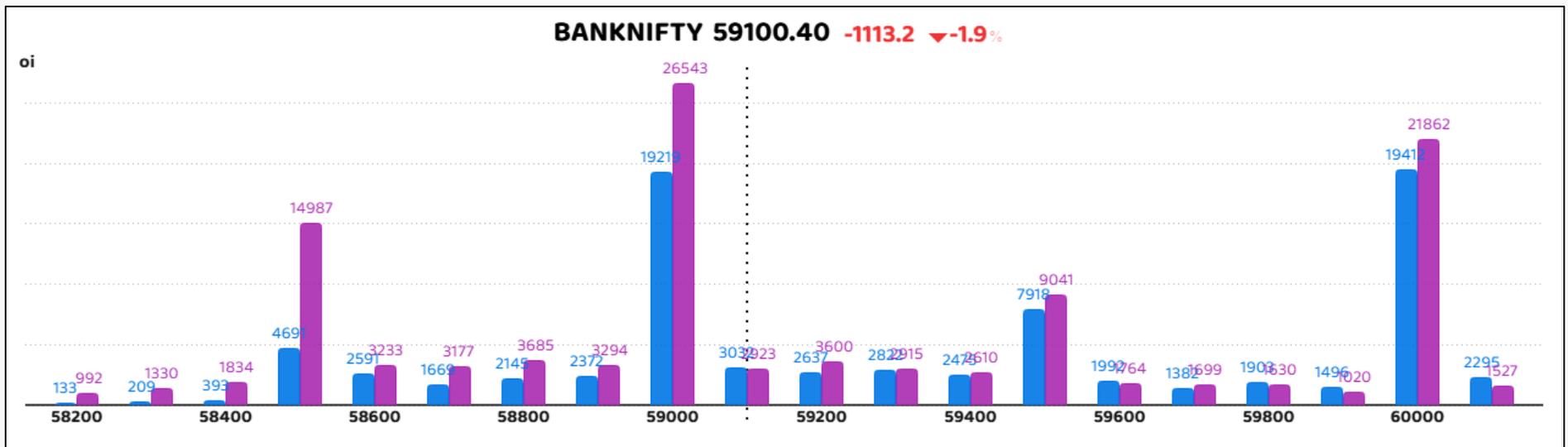
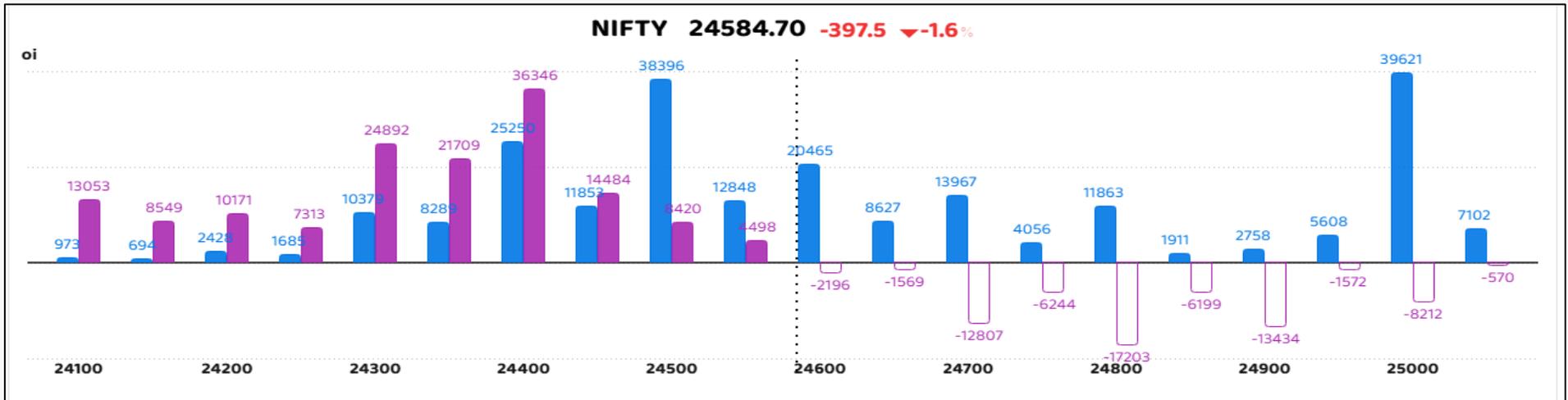


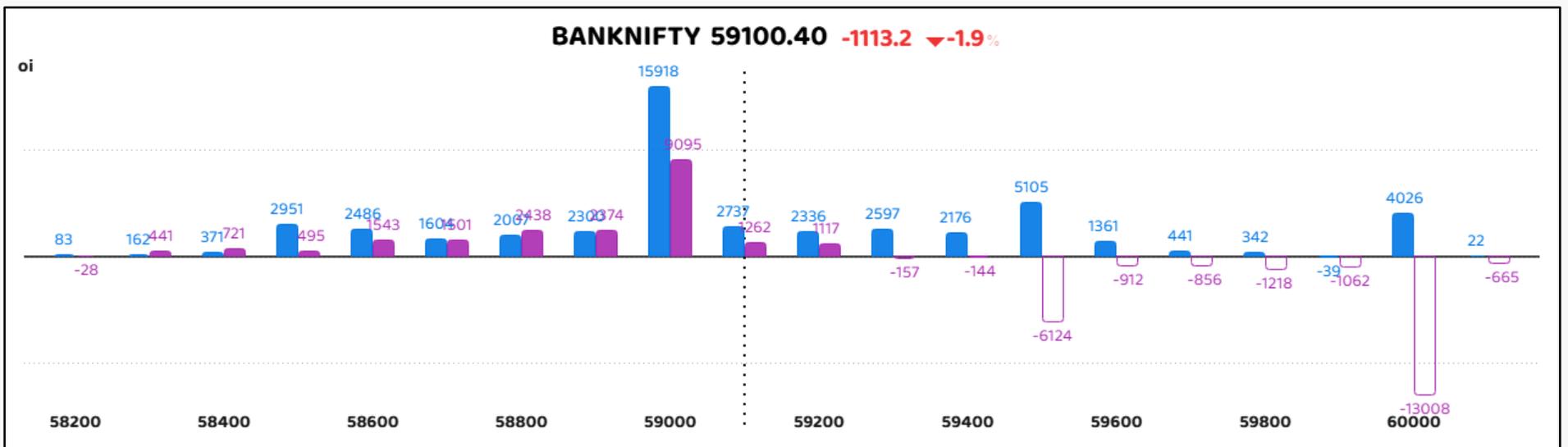
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,000 Call and the 24,400 Put



For the Bank Nifty, the biggest open interest changes were seen at the 59,000 Call & the 60,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
DALMIA BHARAT LT	1,895.7	-3.3	37.8	38.6	17.5	96.0
SYNGENE INTERNAT	400.7	-2.8	37.2	38.7	15.7	93.4
PETRONET LNG LTD	280.0	-9.3	46.4	50.4	16.9	88.0
INTERGLOBE AVIAT	4,392.9	-2.8	39.0	43.2	13.2	86.1
HDFC BANK LTD	868.7	-1.2	24.0	28.0	1.5	85.0

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ASIAN PAINTS LTD	2,285.2	-1.0	9.5	29.4	9.5	0.0
TECH MAHINDRA LT	1,351.2	0.4	3.2	44.2	3.2	0.0
NTPC LTD	365.8	-3.1	22.3	116.6	14.9	7.3
BIOCON LTD	378.4	-2.5	18.6	51.3	15.9	7.7
RELIANCE INDUSTR	1,345.0	-1.0	6.2	34.1	1.4	14.9

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
DALMIA BHARAT LT	1,895.7	-3.3	37.8	38.6	17.5	99.7
PETRONET LNG LTD	280.0	-9.3	46.4	50.4	16.9	99.7
PIRAMAL PHARMA L	152.3	-0.3	41.0	41.4	24.9	99.3
LARSEN & TOUBRO	3,882.6	-4.5	31.0	35.5	14.2	99.2
INTERGLOBE AVIAT	4,392.9	-2.8	39.0	43.2	13.2	99.0

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ASIAN PAINTS LTD	2,285.2	-1.0	9.5	29.4	9.5	0.0
TECH MAHINDRA LT	1,351.2	0.4	3.2	44.2	3.2	0.0
UNION BANK INDIA	191.1	-3.5	15.5	52.4	15.5	0.0
BIOCON LTD	378.4	-2.5	18.6	51.3	15.9	0.5
ADANI ENERGY SOL	960.5	-1.2	24.9	61.7	20.6	0.8

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PAGEIND	30,979.4	-0.6	9,922	1,663	6.0
OIL	492.1	0.8	53,193	12,016	4.4
SOLARINDS	14,523.4	3.8	48,040	12,284	3.9
BDL	1,269.3	0.1	24,583	7,294	3.4
BIOCON	378.4	-2.5	7,567	2,677	2.8

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
POLYCAB	8,284.0	-3.1	14,707	29,901	2.0
IOC	170.4	-4.8	11,901	22,334	1.9
DALBHARAT	1,895.5	-3.3	1,425	2,395	1.7
PETRONET	280.0	-9.3	27,637	45,875	1.7
ASIANPAINT	2,285.2	-0.9	22,319	36,409	1.6

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
BANDHANBNK	177.4	-0.1	8,082	7,164	100.0
TMPV	351.2	-5.2	50,733	47,469	100.0
LTM	4,349.2	-1.3	7,411	7,008	100.0
LTF	271.0	-1.7	17,049	16,267	100.0
INDIGO	4,392.9	-2.8	30,231	22,035	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
BHARTIARTL	1,905.9	1.7	18,365	17,546	100.0
GAIL	154.6	-6.3	12,855	11,952	100.0
LTM	4,349.2	-1.3	4,740	4,548	100.0
IRFC	97.8	-1.6	9,914	9,887	100.0
INDIGO	4,392.9	-2.8	23,050	18,446	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
GAIL	154.6	-6.3	23,255	19,259	100.0
SOLARINDS	14,523.4	3.8	48,040	32,967	100.0
INDIGO	4,392.9	-2.8	63,999	51,841	100.0
LT	3,882.6	-4.5	1,43,132	1,50,972	94.8
CONCOR	462.2	-3.5	7,542	8,447	89.3

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
BAJAJFINSV	1,889.3	-2.7	19,476	19,386	100.0
BPCL	356.4	-4.9	22,717	21,208	100.0
GAIL	154.6	-6.3	33,943	9,817	100.0
JINDALSTEL	1,168.4	-5.6	12,524	8,988	100.0
IOC	170.4	-4.8	22,334	20,656	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	4,392.9	-2.8	30,231	18,504	1.6
WAAREEENER	2,633.9	-0.4	17,797	11,030	1.6
IDFCFIRSTB	70.1	-2.4	32,259	21,956	1.5
UPL	614.1	-1.4	16,425	12,532	1.3
PREMIERENE	706.2	-0.9	6,320	4,858	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	706.2	-0.9	6,163	3,294	1.9
WAAREEENER	2,633.9	-0.4	10,612	6,748	1.6
PETRONET	280.0	-9.3	9,111	6,368	1.4
INDIGO	4,392.9	-2.8	23,050	16,160	1.4
POLYCAB	8,284.0	-3.1	8,872	6,294	1.4

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
SOLARINDS	14,523.4	3.8	48,040	12,115	4.0
PETRONET	280.0	-9.3	27,637	10,351	2.7
INDIGO	4,392.9	-2.8	63,999	24,499	2.6
GAIL	154.6	-6.3	23,255	9,742	2.4
LT	3,882.6	-4.5	1,43,132	60,658	2.4

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
PETRONET	280.0	-9.3	45,875	5,159	8.9
GAIL	154.6	-6.3	33,943	5,712	5.9
SAIL	155.6	-6.0	8,480	1,923	4.4
INDIGO	4,392.9	-2.8	81,280	23,682	3.4
SOLARINDS	14,523.4	3.8	12,284	3,977	3.1

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
ADANIANT	2200	1078101	5.9%	2077	2200	803400	5.9%	JIOFIN	300	5983100	24.3%	241	260	4190050	7.7%
ADANIPTS	1600	911050	11.5%	1434	1400	1031225	-2.4%	JSWSTEEL	1300	828900	7.2%	1213	1200	426600	-1.1%
APOLLOHOSP	8400	91125	9.6%	7666	7000	91000	-8.7%	KOTAKBANK	440	3488000	9.1%	403	400	2744000	-0.8%
ASIANPAINT	2500	598000	9.4%	2285	2300	606750	0.6%	LT	4100	1135750	5.6%	3883	3800	391125	-2.1%
AXISBANK	1350	1940000	-0.1%	1351	1340	1013750	-0.8%	M&M	4000	687200	22.5%	3264	3500	421600	7.2%
BAJAJ-AUTO	10500	354675	8.8%	9653	9300	64650	-3.7%	MARUTI	15500	178950	9.5%	14158	14000	122050	-1.1%
BAJAJFINSV	2100	813500	11.2%	1889	1920	429750	1.6%	MAXHEALTH	1100	348600	4.4%	1054	1100	217350	4.4%
BAJFINANCE	1100	1659750	16.4%	945	960	1232250	1.6%	NESTLEIND	1280	410500	2.8%	1245	1250	155500	0.4%
BEL	450	5801175	0.7%	447	420	3199125	-6.0%	NTPC	380	9556500	3.9%	366	360	2956500	-1.6%
BHARTIARTL	2000	2439125	4.9%	1906	1800	990375	-5.6%	ONGC	300	10093500	8.3%	277	265	3710250	-4.3%
CIPLA	1400	623625	6.6%	1313	1260	368625	-4.1%	POWERGRID	310	5401700	6.2%	292	300	2452900	2.8%
COALINDIA	440	2616300	1.1%	435	430	2002050	-1.2%	RELIANCE	1500	5114000	11.5%	1345	1300	2611000	-3.3%
DRREDDY	1360	705000	5.3%	1291	1300	308750	0.7%	SBILIFE	2100	454500	8.8%	1931	2080	111375	7.7%
EICHERMOT	9000	185300	18.0%	7627	7500	154500	-1.7%	SBIN	1200	3555750	2.2%	1175	1100	3362250	-6.3%
ETERNAL	300	15454525	24.6%	241	250	6612975	3.9%	SHRIRAMFIN	1100	1320000	8.9%	1010	1000	1192950	-1.0%
GRASIM	2860	349000	6.6%	2683	2700	93000	0.6%	SUNPHARMA	1800	1699600	2.8%	1751	1660	333550	-5.2%
HCLTECH	1500	842800	10.0%	1364	1360	366800	-0.3%	TATACONSUM	1300	625350	17.1%	1111	1100	223300	-1.0%
HDFCBANK	900	8988650	3.6%	869	870	3020600	0.2%	TMPV	400	5551200	13.9%	351	350	2032800	-0.3%
HDFCLIFE	750	2055900	9.6%	685	650	722700	-5.1%	TATASTEEL	220	14041500	11.8%	197	200	8811000	1.7%
HINDALCO	1000	1071000	8.5%	922	900	918400	-2.4%	TCS	3000	1783775	15.9%	2588	2600	1020950	0.5%
HINDUNILVR	2500	1004100	10.6%	2261	2400	244500	6.1%	TECHM	1440	1699200	6.6%	1351	1340	1585200	-0.8%
ICICIBANK	1400	4431700	2.5%	1365	1400	2570400	2.5%	TITAN	4300	212450	2.3%	4204	4000	187075	-4.9%
INDIGO	4600	1073850	4.7%	4393	4300	422700	-2.1%	TRENT	4500	303100	19.8%	3757	3700	147100	-1.5%
INFY	1400	4690400	7.1%	1307	1280	2696400	-2.1%	ULTRACEMCO	13000	86300	7.4%	12107	11500	44650	-5.0%
ITC	320	14864000	2.6%	312	320	4209600	2.6%	WIPRO	210	9444000	7.4%	196	200	3876000	2.3%

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

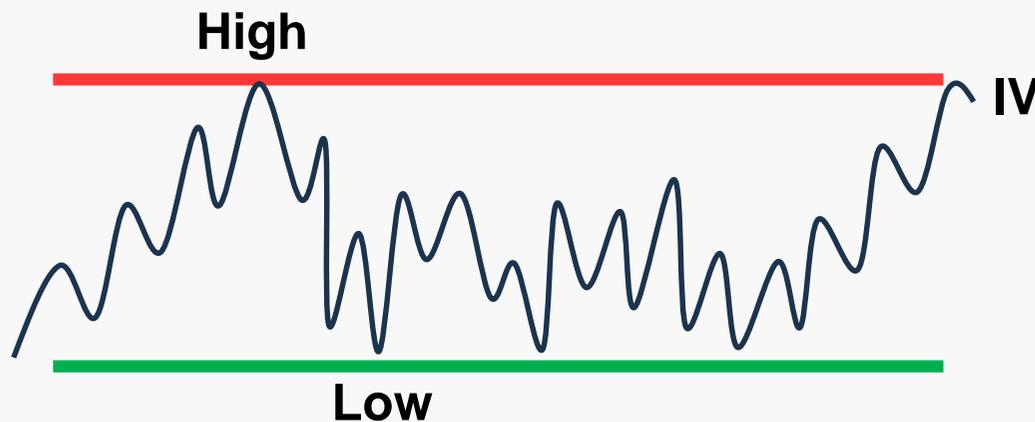
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

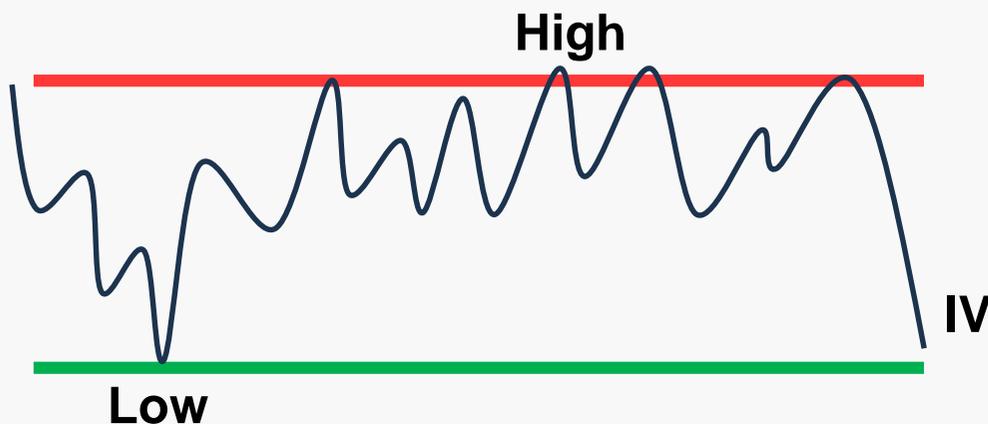
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

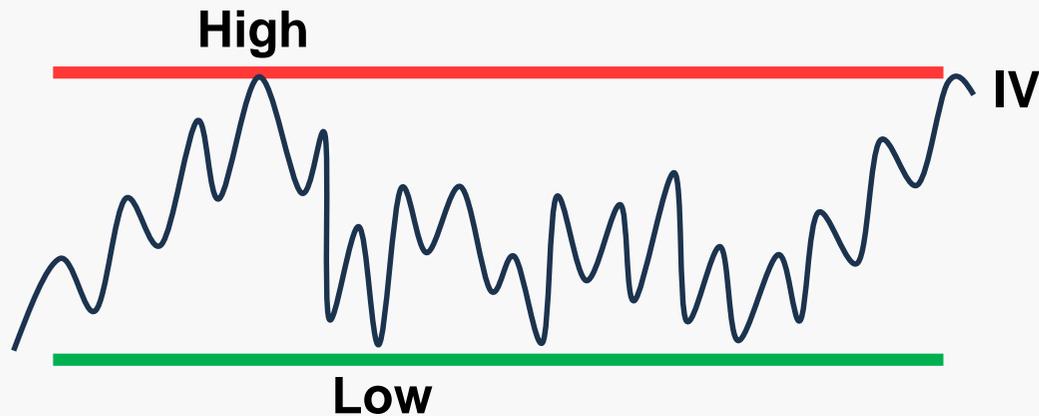


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

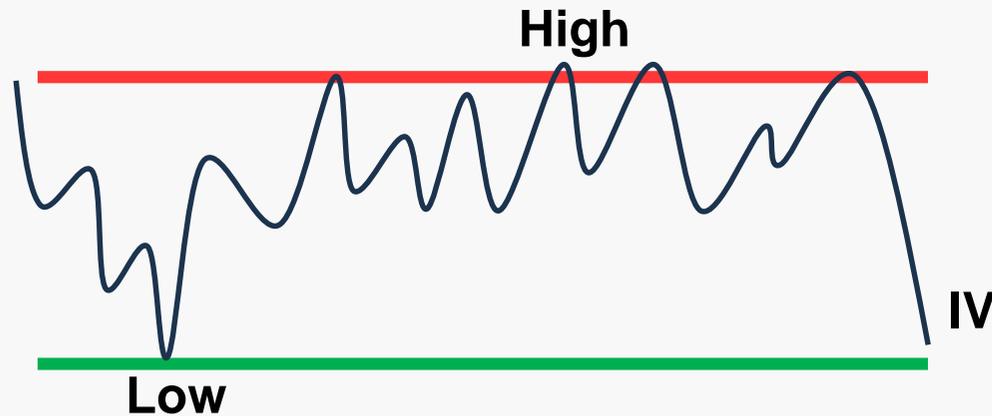


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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