



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	24,982	1.4%▼
Open Interest (OI)	1,70,53,205	5.9%▲
Change in OI (abs)	1,70,53,205	9,45,945▲
Premium / Discount (Abs)	117	43▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	60,214	1.1%▼
Open interest (OI)	20,82,090	8.7%▲
Change in OI (abs)	20,92,090	1,67,070▲
Premium / Discount (Abs)	374	2▲
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	17.13	3.43▲
Nifty ATM IV (%)	15.47	3.30▲
Bank Nifty ATM IV (%)	14.55	2.84▲
PCR (Nifty)	0.99	0.36▲
PCR (Bank Nifty)	1.05	0.01▲

The FII Long Ratio in Index Futures **drop** to 16.3%, **down** from 18.4 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KEI	18,19,125	26.2%	5103	2.0%
OIL	1,95,41,200	19.1%	487.35	0.2%
TIINDIA	30,51,800	7.4%	2810.3	1.9%
MCX	1,27,35,000	7.2%	2514.7	2.6%
ONGC	12,25,62,000	5.3%	282.65	0.8%

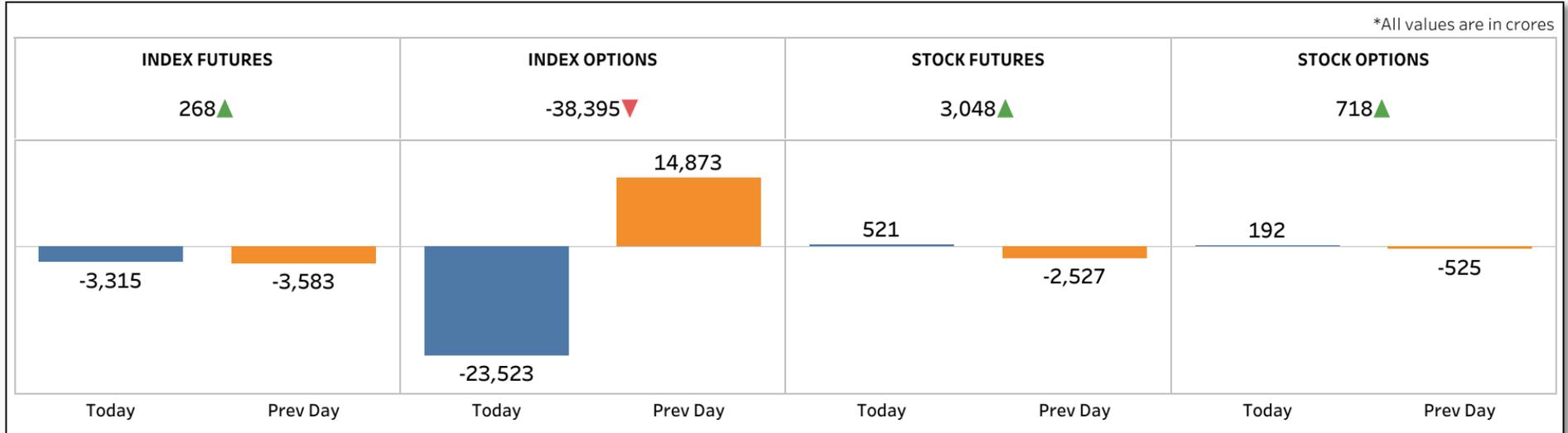
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
HINDPETRO	4,53,43,800	12.4%	426.25	-3.0%
360ONE	31,63,500	11.5%	1078.6	-2.5%
INDIGO	90,61,950	10.3%	4541.9	-6.2%
FEDERALBNK	5,60,50,000	8.2%	296.5	-1.3%
CAMS	68,39,250	7.4%	654.9	-3.6%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MUTHOOTFIN	45,44,650	-8.4%	3480.1	3.4%
HINDALCO	4,49,08,500	-3.6%	941.6	1.3%
SOLARINDS	7,74,050	-2.4%	14018	3.3%
HINDZINC	3,56,49,950	-2.1%	619.8	2.1%
ITC	17,27,37,600	-1.6%	315.75	0.2%

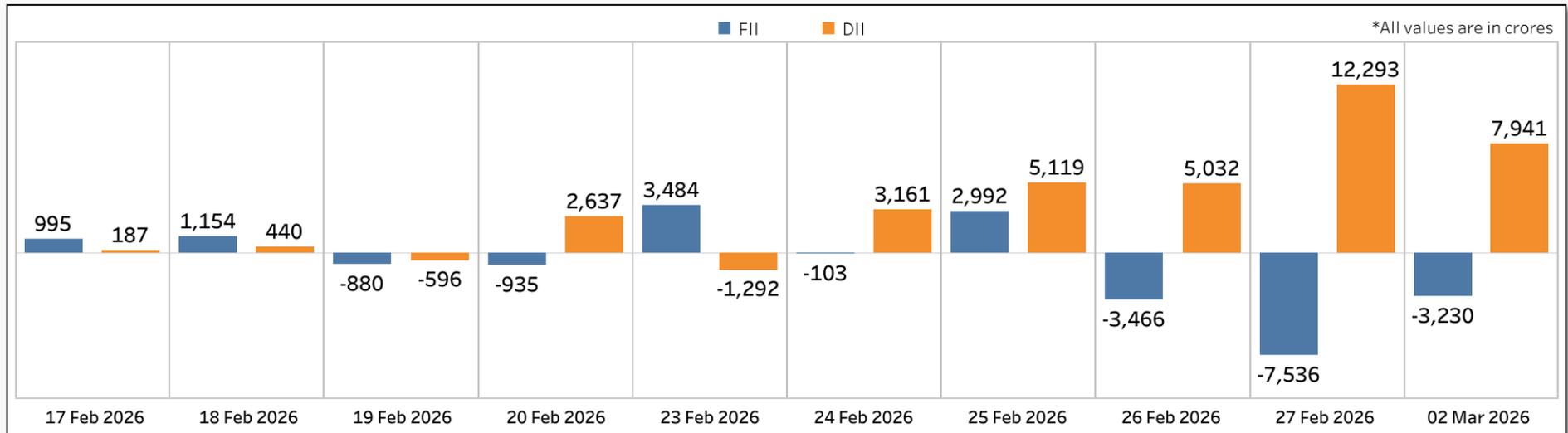
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DALBHARAT	21,35,575	-8.0%	1963.8	-1.6%
INDIANB	78,38,000	-6.3%	977.3	-1.5%
PETRONET	3,57,58,000	-5.6%	309.75	-4.5%
APLAPOLLO	51,68,450	-5.4%	2227.6	-0.6%
POLICYBZR	90,15,300	-4.7%	1472.3	-1.1%

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

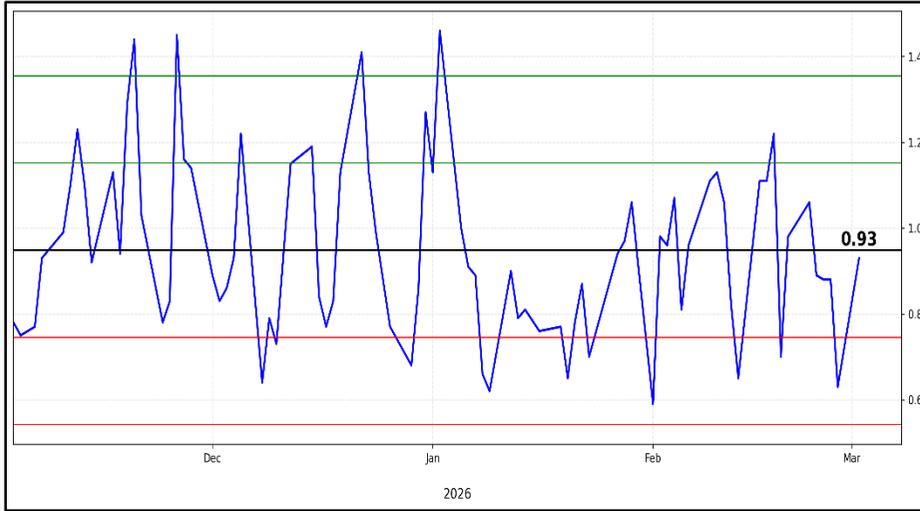
Daily Net Open Interest Change



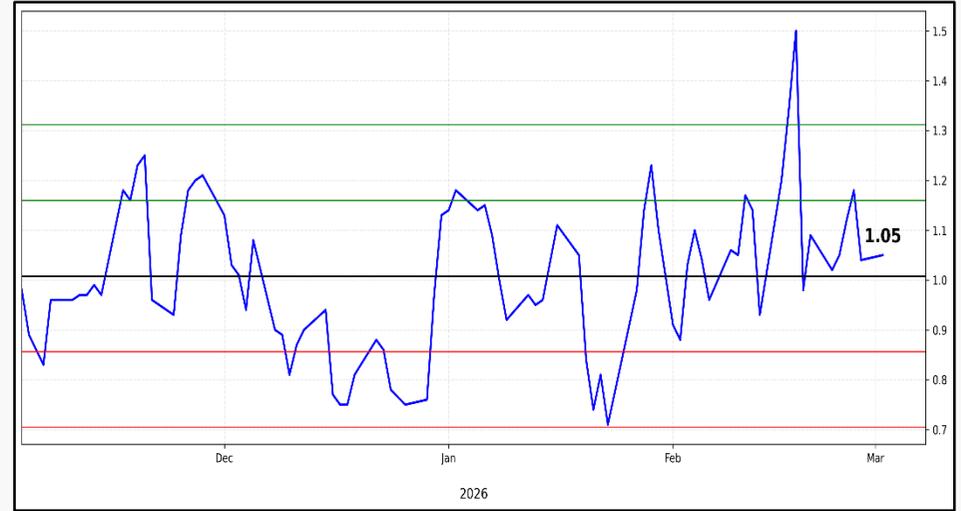
DII and FII Daily Cash Market Flows



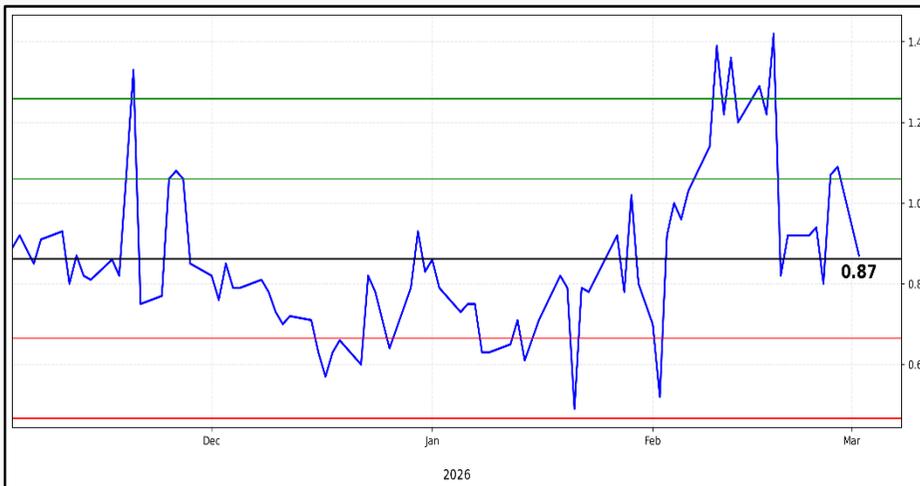
Nifty



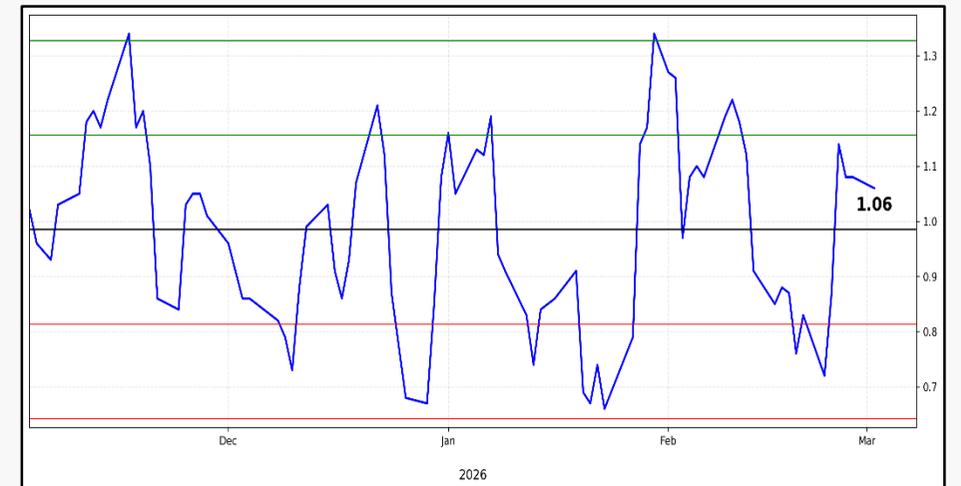
Bank Nifty



Fin Nifty



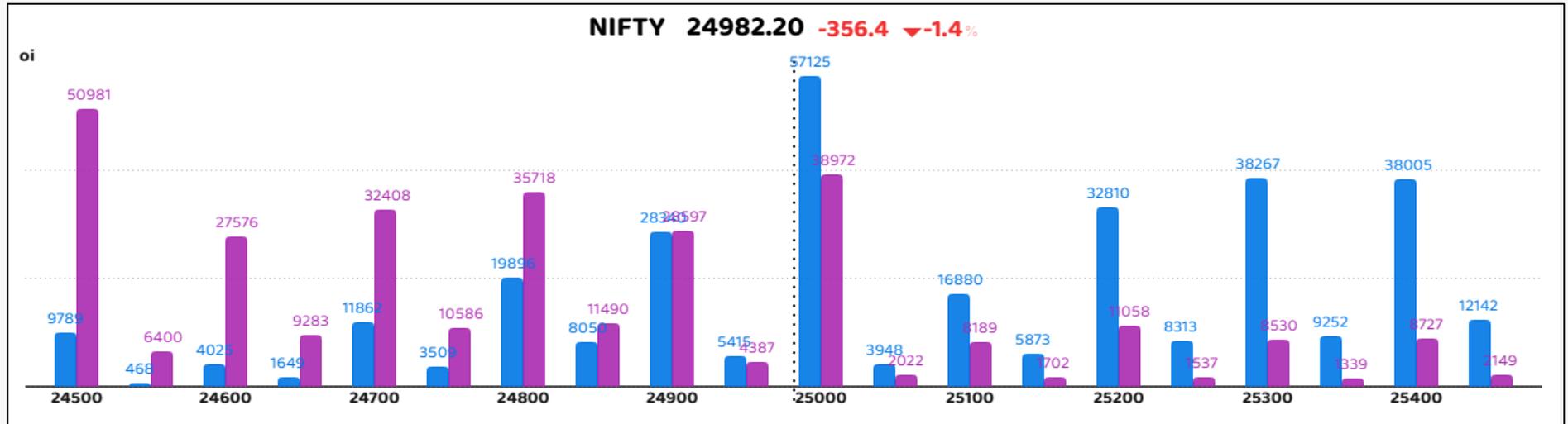
Midcap Select Nifty



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 61,000 Call and the 60,000 Put saw the most amount of open interest.

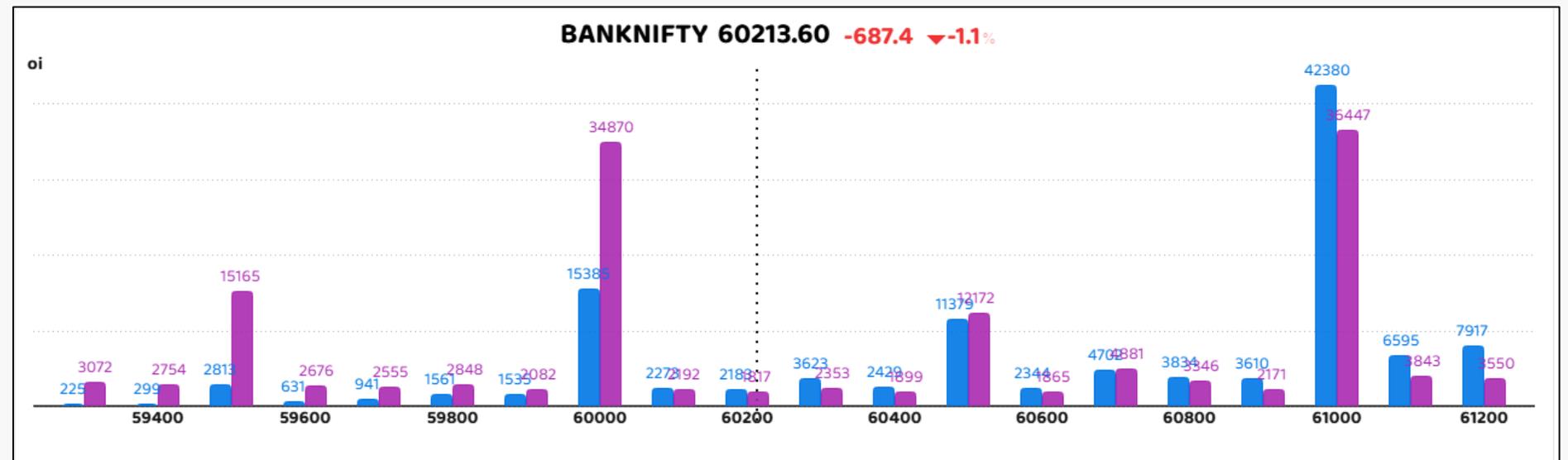
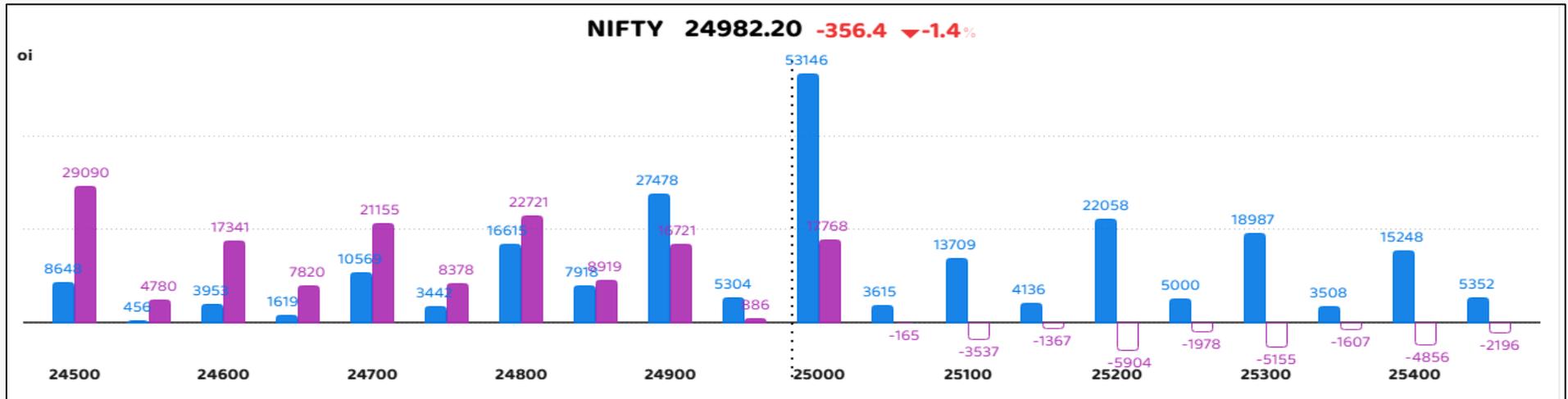


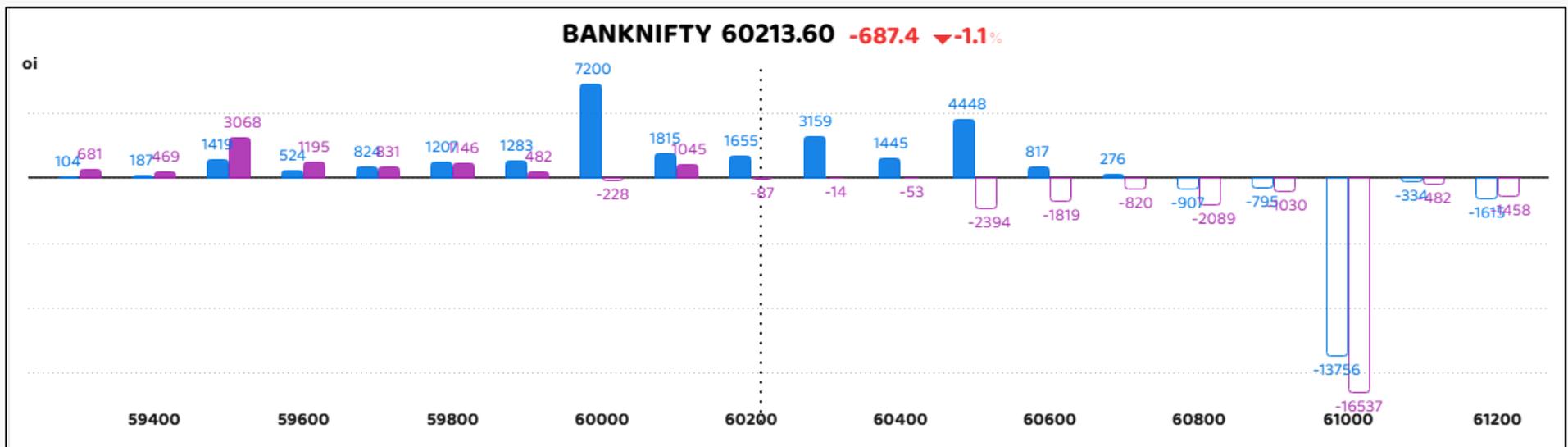
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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 24,500 Put



For the Bank Nifty, the biggest open interest changes were seen at the 61,000 Call & the 61,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
SYNGENE INTERNAT	412.3	-2.4	35.1	38.7	15.7	84.4
ASIAN PAINTS LTD	2,307.1	-2.9	27.2	29.4	16.7	82.7
DIXON TECHNOLOGI	10,151.0	-3.6	43.4	53.1	9.2	77.9
MARUTI SUZUKI IN	14,388.0	-3.2	25.0	29.0	11.3	77.5
HINDUSTAN UNILEV	2,320.6	-0.8	19.3	25.3	0.8	75.7

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
NTPC LTD	377.6	-1.1	18.7	116.6	14.9	3.7
GAIL INDIA LTD	165.1	-2.6	25.8	91.4	19.4	8.9
HDFC LIFE INSURA	707.3	-1.1	21.9	68.4	16.6	10.3
JSW STEEL LTD	1,267.3	0.2	25.6	55.5	20.1	15.6
NMDC LTD	81.3	-0.6	31.6	94.2	19.8	15.8

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
RELIANCE INDUSTR	1,358.0	-2.5	24.6	34.1	1.4	97.4
ASIAN PAINTS LTD	2,307.1	-2.9	27.2	29.4	16.7	96.8
IDFC FIRST BANK	71.8	-2.3	37.9	53.0	12.1	96.8
TATA CONSULTANCY	2,613.5	-0.9	28.7	44.6	1.6	95.7
TECH MAHINDRA LT	1,345.4	-0.9	34.7	44.2	13.0	95.7

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ADANI ENERGY SOL	972.3	-3.9	24.9	61.7	20.6	0.7
YES BANK LTD	20.2	-2.6	24.9	55.3	8.1	5.2
APL APOLLO TUBES	2,222.3	-0.6	21.7	41.7	15.4	10.7
TUBE INVESTMENTS	2,837.6	3.1	30.0	56.6	25.2	13.3
KEI INDUS LTD	5,206.0	2.5	29.2	64.7	20.9	19.6

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
BDL	1,268.0	0.2	41,315	9,534	4.3
RVNL	299.4	-5.3	21,714	6,019	3.6
SOLARINDS	13,989.0	3.6	32,967	9,449	3.5
OIL	488.1	0.9	43,978	12,842	3.4
ONGC	282.2	0.9	1,00,588	30,806	3.3

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
LODHA	966.2	-2.2	3,260	6,378	2.0
OBEROIRLTY	1,490.7	-2.1	3,641	6,587	1.8
INDIGO	4,520.4	-6.4	51,841	92,804	1.8
PRESTIGE	1,377.3	-1.1	1,861	3,005	1.6
ADANIPTS	1,470.3	-3.3	28,982	45,014	1.6

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
LTM	4,404.4	-1.3	7,008	6,891	100.0
LTF	275.8	-2.9	16,267	15,980	100.0
BANDHANBNK	177.6	-2.4	7,081	7,164	98.8
PREMIERENE	712.9	-2.5	6,305	6,677	94.4
POLYCAB	8,548.5	-0.7	8,357	8,994	92.9

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
LTM	4,404.4	-1.3	4,548	4,538	100.0
PREMIERENE	712.9	-2.5	6,191	6,050	100.0
POLYCAB	8,548.5	-0.7	7,011	7,077	99.1
IRFC	99.4	-4.1	9,157	9,887	92.6
BHARTIARTL	1,873.2	-0.3	16,248	17,546	92.6

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
INDIGO	4,520.4	-6.4	51,841	47,249	100.0
SOLARINDS	13,989.0	3.6	32,967	23,470	100.0
YESBANK	20.2	-2.6	12,347	13,315	92.7
CAMS	651.2	-3.9	5,104	6,032	84.6
KEI	5,206.0	2.5	32,336	38,501	84.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
ADANIPTS	1,470.3	-3.3	45,014	37,950	100.0
ASIANPAINT	2,307.1	-2.9	41,248	31,800	100.0
LTM	4,404.4	-1.3	3,799	3,382	100.0
INDIGO	4,520.4	-6.4	92,804	69,597	100.0
IOC	179.1	-4.5	20,656	15,465	100.0

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
WAAREEENER	2,643.3	-2.4	17,977	10,596	1.7
IDFCFIRSTB	71.8	-2.3	30,983	21,392	1.4
PREMIERENE	712.9	-2.5	6,305	4,768	1.3
UPL	622.8	-2.3	15,714	12,333	1.3
LTF	275.8	-2.9	16,267	13,129	1.2

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
PREMIERENE	712.9	-2.5	6,191	3,113	2.0
WAAREEENER	2,643.3	-2.4	11,415	6,457	1.8
IDFCFIRSTB	71.8	-2.3	21,836	15,039	1.5
CHOLAFIN	1,703.7	-1.6	5,293	4,688	1.1
POLYCAB	8,548.5	-0.7	7,011	6,249	1.1

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
KEI	5,206.0	2.5	32,336	9,311	3.5
SOLARINDS	13,989.0	3.6	32,967	10,811	3.0
INDIGO	4,520.4	-6.4	51,841	22,791	2.3
ONGC	282.2	0.9	1,00,588	48,240	2.1
LT	4,066.7	-4.9	1,16,602	57,162	2.0

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
INDIGO	4,520.4	-6.4	92,804	19,362	4.8
HINDPETRO	424.5	-3.2	17,309	5,315	3.3
KEI	5,206.0	2.5	10,849	3,709	2.9
ASIANPAINT	2,307.1	-2.9	41,248	15,476	2.7
LT	4,066.7	-4.9	1,19,195	45,178	2.6

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	1054617	3.5%	2125	2200	813597	3.5%	JIOFIN	300	5555400	20.5%	249	260	4321650	4.4%
ADANIPTS	1600	874475	8.8%	1470	1400	845025	-4.8%	JSWSTEEL	1300	741825	2.6%	1267	1200	520425	-5.3%
APOLLOHOSP	7800	95250	0.1%	7792	7000	99750	-10.2%	KOTAKBANK	440	3286000	6.5%	413	400	2514000	-3.2%
ASIANPAINT	2500	524000	8.4%	2307	2300	666750	-0.3%	LT	4100	925575	0.8%	4067	4100	421750	0.8%
AXISBANK	1400	1341250	2.0%	1372	1400	871250	2.0%	M&M	4000	683600	20.0%	3334	3500	504800	5.0%
BAJAJ-AUTO	10500	310950	7.4%	9776	9000	90525	-7.9%	MARUTI	15000	168550	4.3%	14388	15000	122950	4.3%
BAJAJFINSV	2100	713000	8.1%	1942	1920	434500	-1.1%	MAXHEALTH	1100	342825	1.5%	1084	1100	258825	1.5%
BAJFINANCE	1100	1602000	12.4%	978	960	1200000	-1.9%	NESTLEIND	1400	195500	9.4%	1280	1200	159500	-6.2%
BEL	450	5157075	-0.9%	454	420	2976825	-7.5%	NTPC	380	9430500	0.6%	378	360	2920500	-4.6%
BHARTIARTL	2000	2593500	6.8%	1873	1900	788975	1.4%	ONGC	300	8388000	6.3%	282	280	3730500	-0.8%
CIPLA	1500	660750	11.0%	1352	1260	371625	-6.8%	POWERGRID	310	5048300	4.4%	297	300	2623900	1.1%
COALINDIA	430	2690550	0.9%	426	430	1536300	0.9%	RELIANCE	1500	5001000	10.5%	1358	1400	2322500	3.1%
DRREDDY	1340	446875	3.5%	1294	1300	366875	0.4%	SBILIFE	2240	291375	10.2%	2032	2000	177375	-1.6%
EICHERMOT	9000	198300	15.0%	7826	7500	190900	-4.2%	SBIN	1200	3288000	0.8%	1190	1100	3768750	-7.6%
ETERNAL	300	15156250	23.5%	243	250	6562050	2.9%	SHRIRAMFIN	1100	1235025	4.5%	1053	1000	810975	-5.0%
GRASIM	2860	341750	3.0%	2777	2600	121250	-6.4%	SUNPHARMA	1800	1723050	2.7%	1753	1660	337050	-5.3%
HCLTECH	1500	791700	9.4%	1371	1300	378350	-5.2%	TATACONSUM	1300	626450	15.5%	1125	1100	213950	-2.2%
HDFCBANK	900	7373850	2.3%	879	900	3556300	2.3%	TMPV	400	4322400	7.9%	371	380	1881600	2.5%
HDFCLIFE	750	1643400	6.0%	707	650	673200	-8.1%	TATASTEEL	220	11159500	4.3%	211	200	6473500	-5.2%
HINDALCO	940	956200	0.0%	940	900	938000	-4.3%	TCS	3000	1788325	14.8%	2614	2600	1014125	-0.5%
HINDUNILVR	2500	980100	7.7%	2321	2400	252000	3.4%	TECHM	1440	1704000	7.0%	1345	1340	1567200	-0.4%
ICICIBANK	1400	4795000	1.9%	1374	1400	2711100	1.9%	TITAN	4400	208425	3.0%	4270	4000	223475	-6.3%
INDIGO	5000	563400	10.6%	4520	4000	238050	-11.5%	TRENT	4500	331600	16.9%	3849	4000	149500	3.9%
INFY	1400	4764000	8.6%	1289	1280	2626000	-0.7%	ULTRACEMCO	13000	67350	3.8%	12521	12000	25650	-4.2%
ITC	330	11628800	4.8%	315	320	4300800	1.6%	WIPRO	210	11013000	5.8%	199	200	4710000	0.7%

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

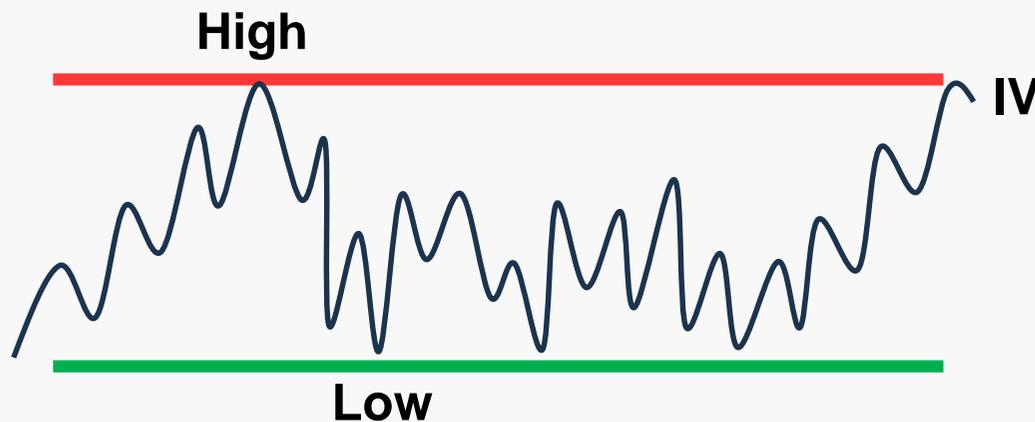
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

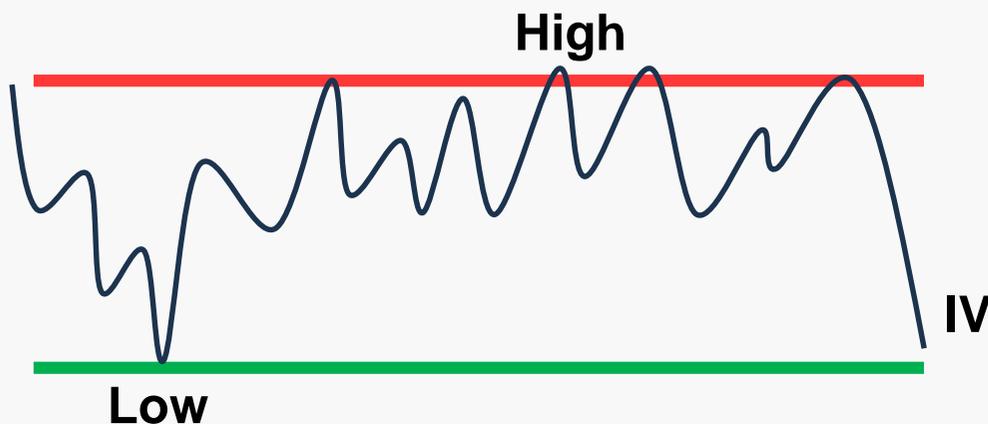
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

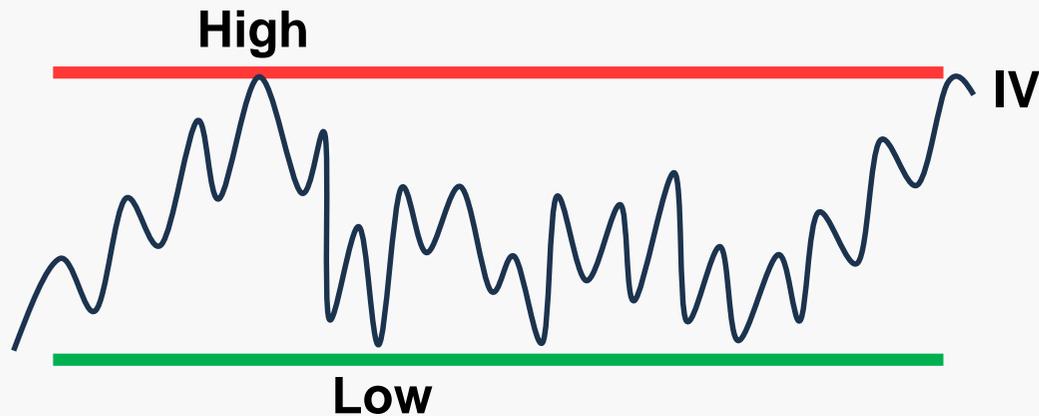


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

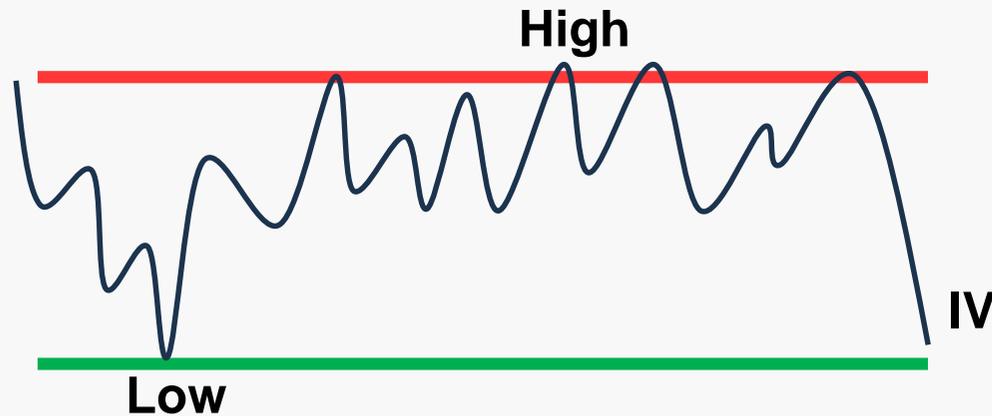


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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