



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	25,828	0.3%▲
Open Interest (OI)	1,77,51,175	0.4%▲
Change in OI (abs)	1,77,51,175	66,105▲
Premium / Discount (Abs)	8	6▼
Inference	Long Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	61,500	0.6%▲
Open interest (OI)	19,19,430	8.6%▲
Change in OI (abs)	19,19,430	1,51,920▲
Premium / Discount (Abs)	-50	11▲
Inference	Long Build Up	

Volatility Insights

	Value	Change
India VIX Index	12.22	0.45▼
Nifty ATM IV (%)	9.73	0.88▼
Bank Nifty ATM IV (%)	10.59	0.92▼
PCR (Nifty)	1.22	0.10▲
PCR (Bank Nifty)	1.50	0.16▲

The FII Long Ratio in Index Futures **jump** to 22.8 %, **up** from 21 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MANKIND	29,40,975	8.4%	2081.4	0.6%
PREMIERENE	70,94,925	8.3%	766.15	0.5%
CGPOWER	1,58,12,550	8.0%	712.05	3.3%
ICICIPRULI	1,71,40,250	8.0%	650.5	1.8%
CUMMINSIND	36,73,600	7.5%	4738.1	3.1%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KPITTECH	66,06,200	15.5%	862	-1.9%
AUROPHARMA	2,41,88,450	12.7%	1165.7	-1.4%
PERSISTENT	38,82,900	11.4%	5514	-1.8%
WAAREEENER	32,12,825	10.1%	2967.3	-3.2%
WIPRO	20,38,23,000	8.2%	212.37	-1.9%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
RBLBANK	6,80,30,725	-8.2%	325.8	1.2%
IRCTC	1,34,18,125	-7.0%	620.7	0.8%
KFINTECH	59,92,000	-6.0%	1041.5	1.8%
GODREJPROP	84,35,900	-5.1%	1882.8	2.1%
SHREECEM	3,97,975	-5.0%	26525	1.0%

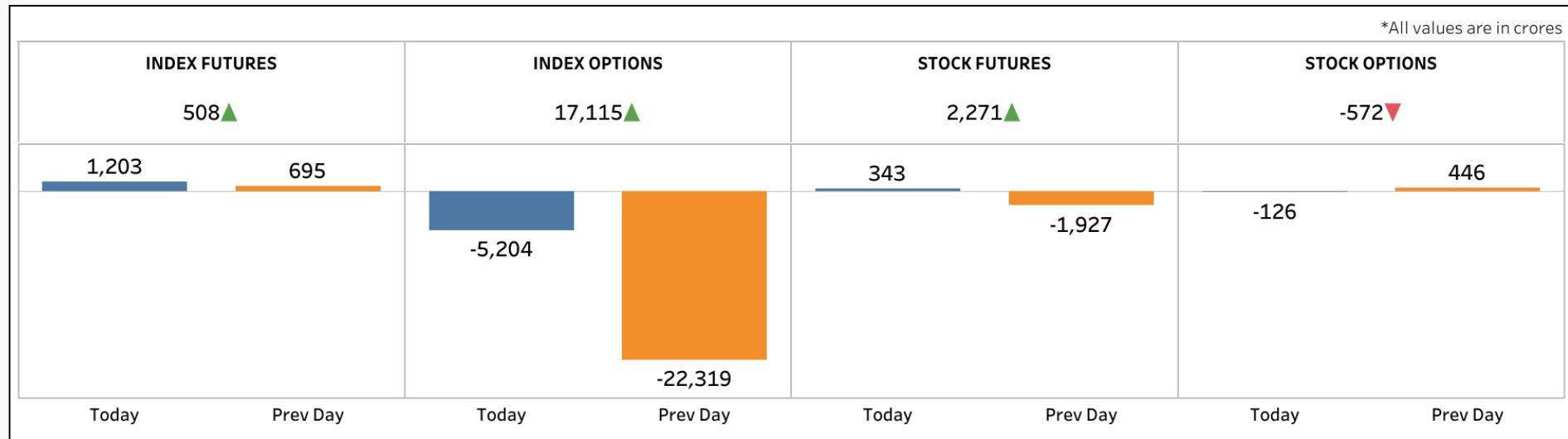
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ETERNAL	24,54,07,575	-2.3%	276.95	-1.7%
TORNTPHARM	28,77,500	-1.9%	4215.6	-0.5%
ASIANPAINT	1,43,05,750	-1.3%	2434.6	-0.2%
DRREDDY	1,59,20,625	-1.3%	1280.9	-0.3%
JSWENERGY	3,32,13,000	-1.0%	486.55	-0.1%

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

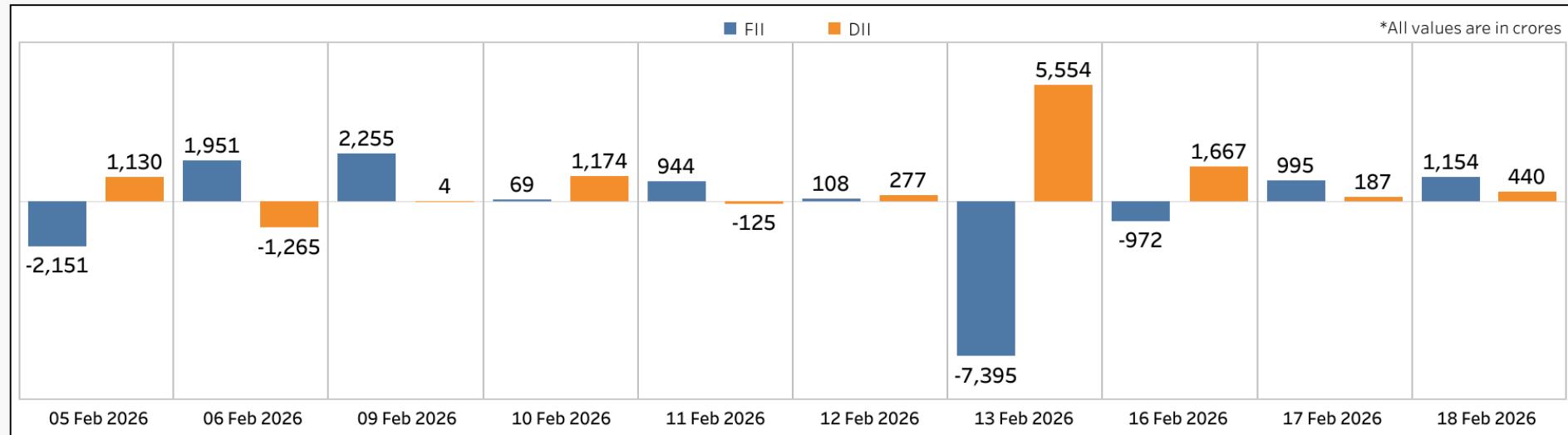
Open Interest Trends by Participant

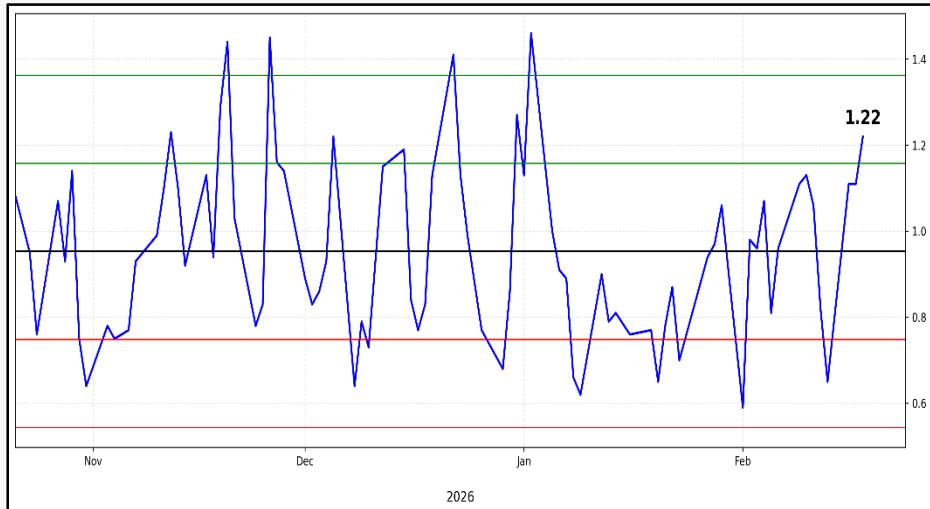
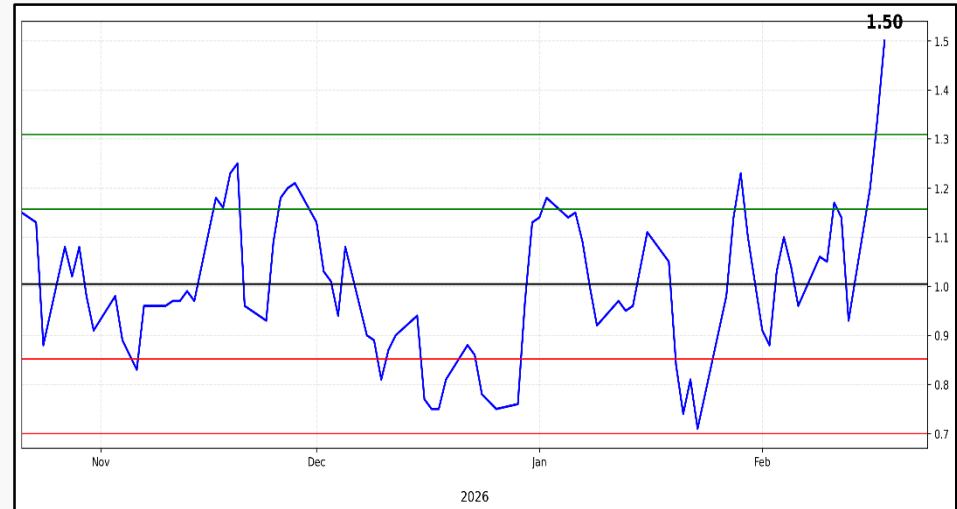
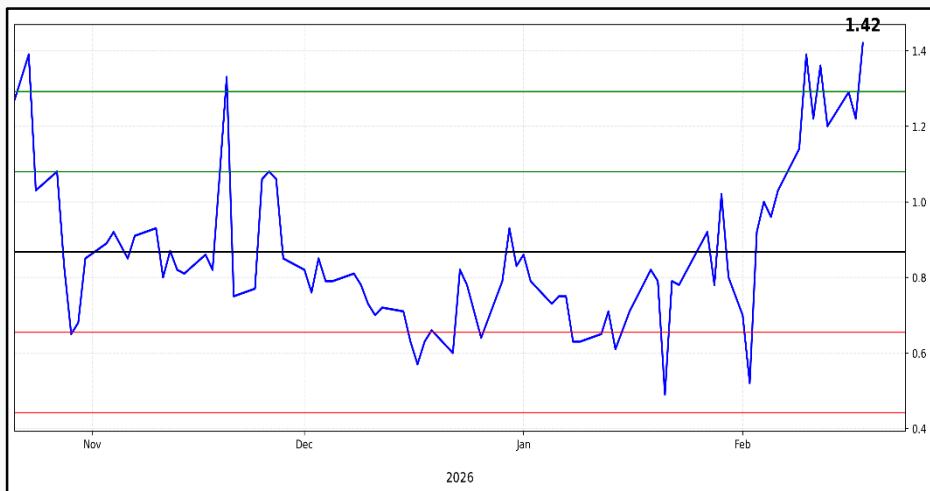
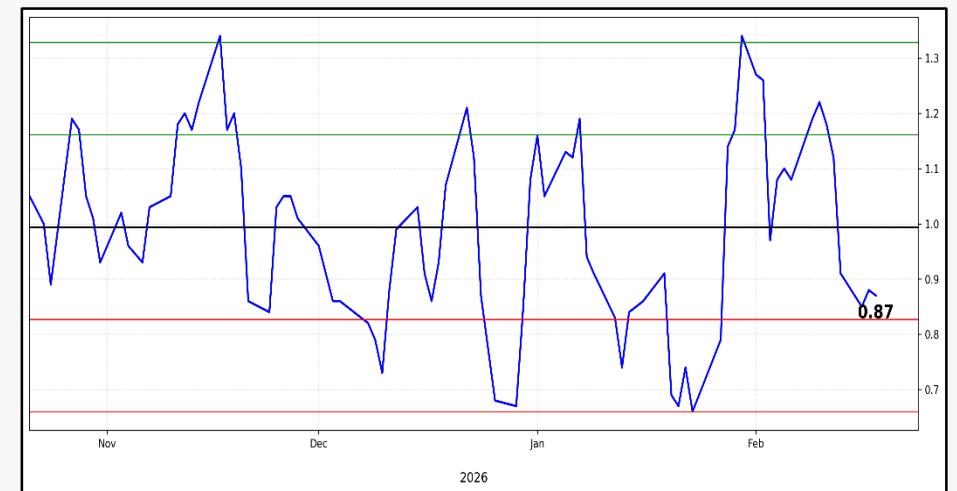
▲ and ▼ indicate positive and negative absolute changes, respectively

Daily Net Open Interest Change



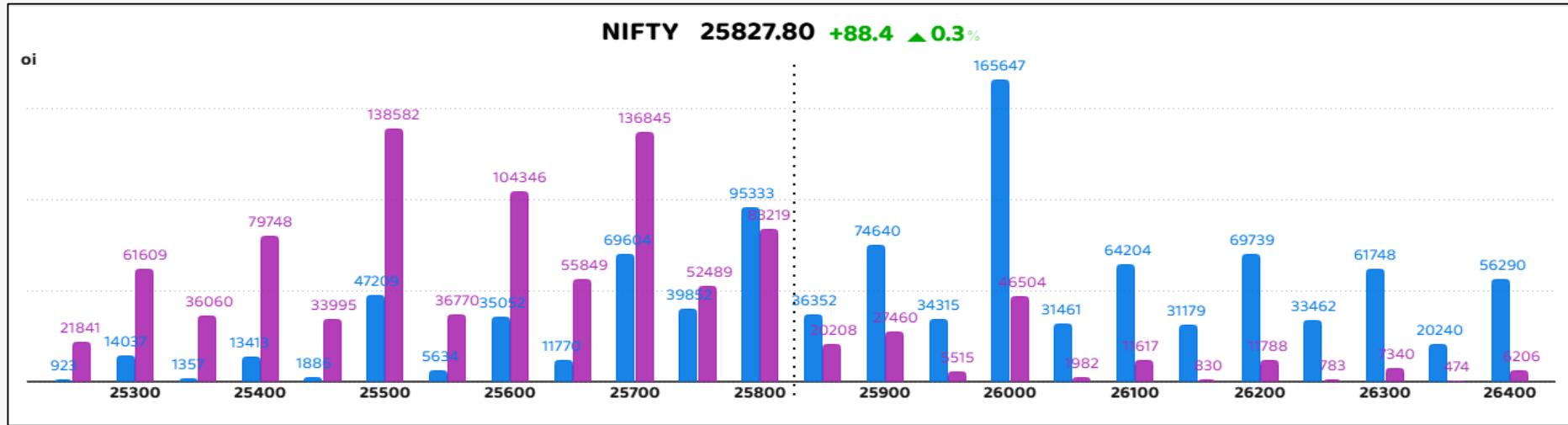
DII and FII Daily Cash Market Flows



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 25,700 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 62,000 Call and the 61,000 Put saw the most amount of open interest.

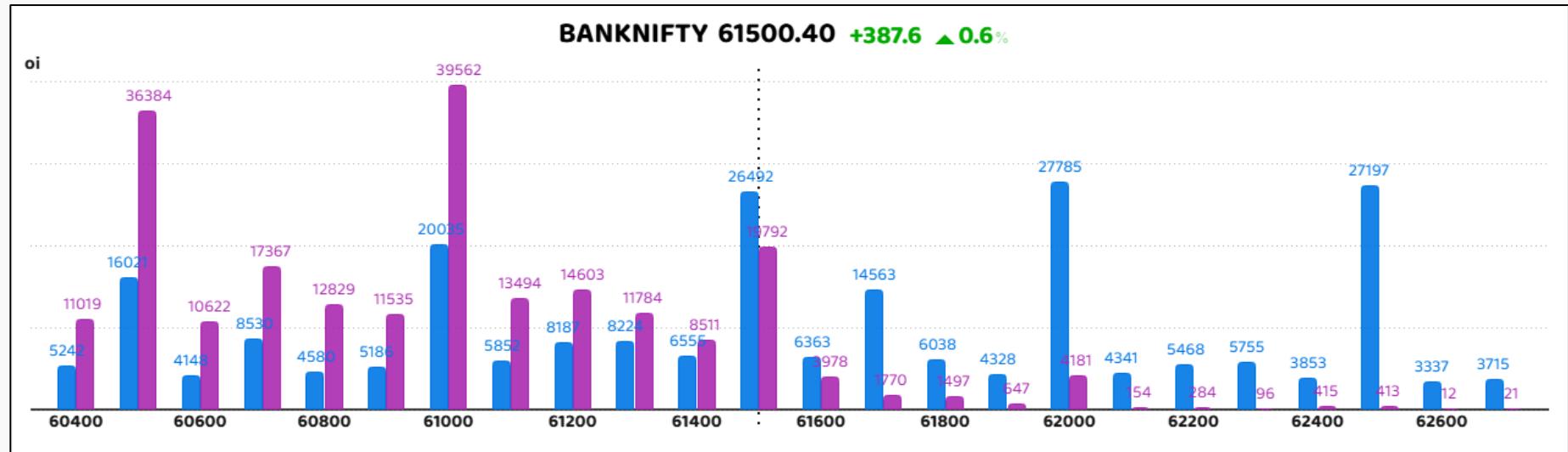
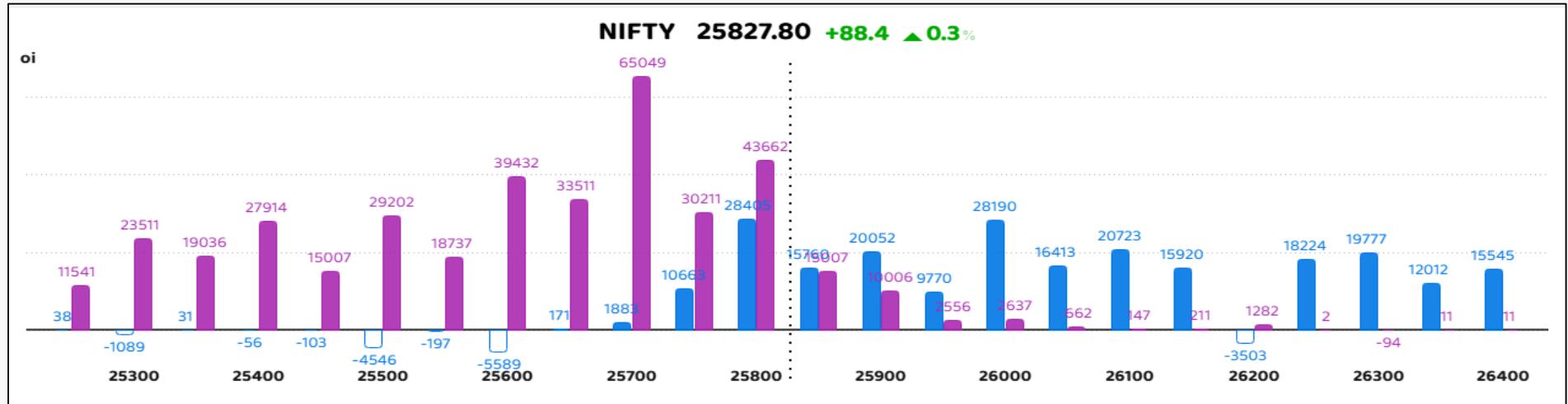
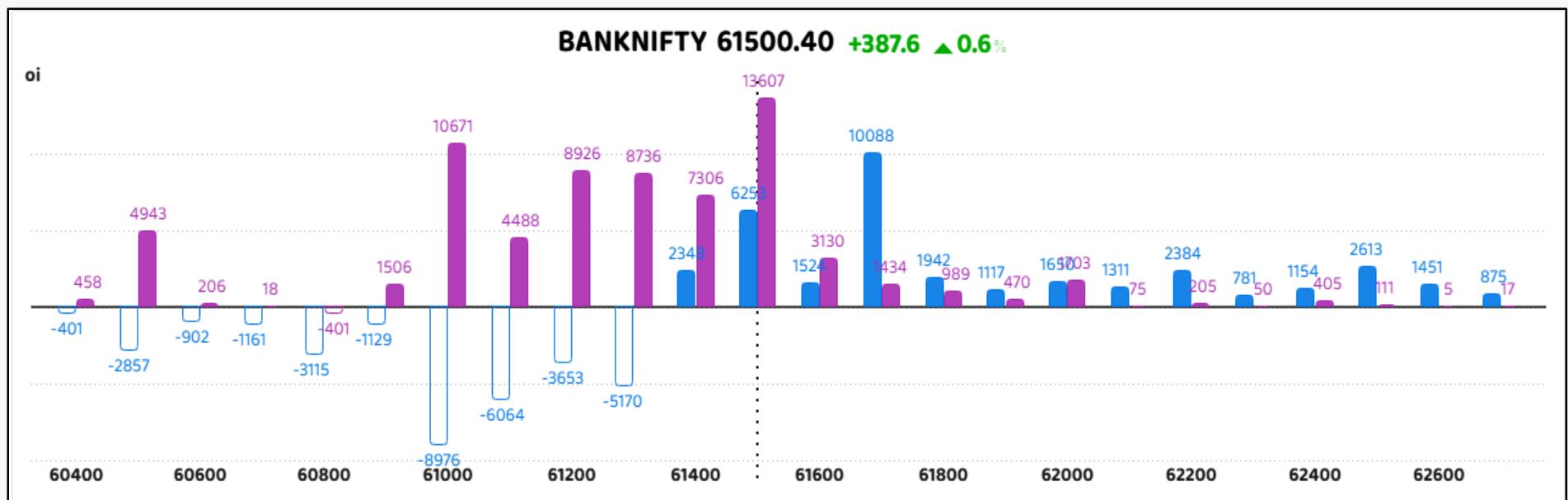


Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

 Call  Put 


The largest open interest changes (contracts) were seen at the 25,800 Call and the 25,700 Put



For the Bank Nifty, the biggest open interest changes were seen at the 61,000 Call & the 61,500 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
SYNGENE INTERNAT	433.2	0.1	33.4	38.7	15.7	76.6
SHREE CEMENT	26,635.0	1.0	25.6	31.5	7.9	75.0
LTMINDTREE LTD	5,054.0	-2.1	33.3	43.3	6.8	72.6
HINDUSTAN UNILEV	2,323.5	0.5	18.0	25.3	0.8	70.0
DIXON TECHNOLOGI	11,517.0	-1.0	39.8	53.1	9.2	69.6

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ASTRAL LTD	1,636.6	-0.6	18.8	40.4	18.8	0.0
GAIL INDIA LTD	167.3	0.9	20.7	91.4	19.4	1.9
HDFC LIFE INSURA	729.6	3.4	18.3	68.4	16.6	3.2
NTPC LTD	368.4	0.0	19.4	116.6	14.9	4.4
ADANI PORTS AND	1,550.8	-1.0	24.3	99.7	19.0	6.5

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
TATA CONSULTANCY	2,694.9	-0.8	29.5	44.6	1.6	97.1
INFOSYS LTD	1,373.7	-1.3	34.6	60.8	1.7	94.8
HCL TECH LTD	1,467.2	-1.0	29.4	46.0	10.4	91.0
COFORGE LTD	1,372.8	-0.4	40.8	60.2	18.1	90.5
MCX INDIA LTD	2,341.3	2.5	45.0	56.4	26.3	89.0

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MAX HEALTHCARE I	1,086.3	0.9	22.4	68.8	22.4	0.0
ASTRAL LTD	1,636.6	-0.6	18.8	40.4	18.8	0.0
YES BANK LTD	21.2	0.8	24.3	55.3	8.1	1.8
BAJAJ FINSERV LT	2,060.6	0.8	18.9	33.8	13.0	3.3
HDFC LIFE INSURA	729.6	3.4	18.3	68.4	16.6	3.6

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
BOSCHLTD	35,695.0	0.9	13,113	2,142	6.1
RVNL	309.6	0.3	46,256	8,799	5.3
SHREECEM	26,634.8	1.0	11,359	2,580	4.4
SUZLON	46.1	0.3	11,137	2,670	4.2
IRFC	113.3	0.3	22,240	5,467	4.1

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
DALBHARAT	2,128.9	0.8	2,708	12,327	4.6
BAJAJHLDNG	11,412.9	1.7	4,585	7,728	1.7
LODHA	1,108.1	1.0	4,177	5,566	1.3
AMBER	7,894.0	1.0	13,663	17,767	1.3
MFSL	1,836.4	-1.2	4,739	5,852	1.2

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
ABB	5,881.5	0.8	12,505	12,437	100.0
ADANIENT	2,211.2	-1.4	29,254	29,103	100.0
ANGELONE	2,591.8	0.8	13,732	11,379	100.0
ADANIPORTS	1,550.8	-1.0	20,921	20,837	100.0
HDFCAMP	2,812.6	-1.8	6,555	6,445	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
ABB	5,881.5	0.8	8,884	8,392	100.0
ABCAPITAL	349.6	0.2	4,550	4,471	100.0
ADANIENSOL	1,035.7	0.5	5,422	5,299	100.0
HDFCLIFE	729.6	3.4	6,428	6,185	100.0
COFORGE	1,372.8	-0.4	15,960	15,730	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
ABB	5,881.5	0.8	22,071	19,133	100.0
APLAPOLO	2,243.8	0.9	13,333	10,728	100.0
ANGELONE	2,591.8	0.8	71,069	54,936	100.0
DABUR	510.6	-1.2	27,037	13,008	100.0
GAIL	167.3	0.9	19,259	15,560	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
ABB	5,881.5	0.8	10,281	8,587	100.0
DIXON	11,517.6	-1.0	74,858	52,043	100.0
EXIDEIND	341.6	0.2	2,534	2,315	100.0
GAIL	167.3	0.9	9,010	7,209	100.0
HDFCAMC	2,812.6	-1.8	12,185	7,851	100.0

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
CUMMINSIND	4,725.8	2.8	9,331	5,604	1.7
MUTHOOTFIN	3,456.9	-1.1	40,232	25,782	1.6
BSE	2,824.0	3.0	42,896	28,122	1.5
INOXWIND	98.8	-1.1	13,042	8,836	1.5
ALKEM	5,464.0	0.1	4,581	3,190	1.4

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
AUROPHARMA	1,159.6	-2.3	15,936	9,942	1.6
CUMMINSIND	4,725.8	2.8	8,632	5,496	1.6
TORNTPHARM	4,210.8	-1.1	3,311	2,141	1.5
PERSISTENT	5,521.0	-1.9	15,007	9,737	1.5
MUTHOOTFIN	3,456.9	-1.1	15,055	10,364	1.5

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
CUMMINSIND	4,725.8	2.8	1,10,309	15,504	7.1
ICICIGI	1,959.7	1.6	29,759	4,326	6.9
MARICO	796.0	2.8	29,306	5,106	5.7
WAAREEENER	2,963.6	-2.9	38,888	7,855	5.0
PETRONET	304.0	2.5	35,866	8,295	4.3

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
WAAREEENER	2,963.6	-2.9	35,388	3,075	11.5
BAJAJHLDNG	11,412.9	1.7	7,728	897	8.6
DALBHARAT	2,128.9	0.8	12,327	2,213	5.6
CUMMINSIND	4,725.8	2.8	38,628	8,350	4.6
PETRONET	304.0	2.5	15,829	3,584	4.4

Call and put volume refers to the number of contracts that have been traded in the most recently concluded session
 Only looks at stocks with volumes more than 1000 contracts

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	2300	959136	4.0%	2211	2200	824103	-0.5%	JIOFIN	270	7064100	2.2%	264	260	5202900	-1.6%
ADANIPORTS	1600	1135250	3.2%	1551	1500	1245925	-3.3%	JSWSTEEL	1260	845775	0.7%	1251	1200	1273050	-4.1%
APOLLOHOSP	7700	275750	0.7%	7648	7500	111250	-1.9%	KOTAKBANK	420	4740000	-1.5%	426	410	4918000	-3.8%
ASIANPAINT	2500	857750	2.8%	2432	2100	485250	-13.7%	LT	4100	1732675	-5.2%	4326	4100	1064175	-5.2%
AXISBANK	1380	3525625	0.2%	1377	1350	1626250	-2.0%	M&M	3700	1376600	4.8%	3531	3500	519200	-0.9%
BAJAJ-AUTO	10000	201525	0.2%	9980	9600	100425	-3.8%	MARUTI	16000	275400	5.5%	15164	15000	126700	-1.1%
BAJAJFINSV	2040	680250	-1.0%	2061	1680	670500	-18.5%	MAXHEALTH	1120	360150	3.1%	1086	1000	471450	-7.9%
BAJFINANCE	1000	2167500	-2.3%	1024	950	1890000	-7.2%	NESTLEIND	1350	497000	3.8%	1301	1200	177500	-7.8%
BEL	450	13962150	0.5%	448	440	3830400	-1.7%	NTPC	370	31569000	0.4%	368	350	4411500	-5.0%
BHARTIARTL	2100	2226325	3.9%	2022	2000	894900	-1.1%	ONGC	263.75	16204500	-0.3%	265	263.75	5022000	-0.3%
CIPLA	1400	1153500	3.7%	1350	1300	457500	-3.7%	POWERGRID	300	13328500	-0.2%	301	290	4235100	-3.5%
COALINDIA	460	4835700	10.0%	418	420	2814750	0.5%	RELIANCE	1500	6749500	4.1%	1441	1400	4398500	-2.9%
DRREDDY	1280	2164375	0.0%	1280	1280	485625	0.0%	SBILIFE	2040	1263375	-1.0%	2060	2040	585000	-1.0%
EICHERMOT	8500	212700	6.1%	8010	7700	201200	-3.9%	SBIN	1220	4101000	0.1%	1219	1100	6186000	-9.8%
ETERNAL	300	16603975	8.2%	277	260	5812725	-6.3%	SHIRIRAMFIN	1100	1345575	2.2%	1076	1000	1076625	-7.1%
GRASIM	3000	293500	2.3%	2934	2800	272000	-4.6%	SUNPHARMA	1720	2423400	-0.3%	1724	1700	1257900	-1.4%
HCLTECH	1600	2896600	9.1%	1467	1400	572600	-4.6%	TATACONSUM	1200	645150	2.6%	1170	1120	523050	-4.2%
HDFCBANK	950	8193350	2.7%	925	930	2762100	0.6%	TMPV	390	4633600	1.9%	383	370	2248800	-3.4%
HDFCLIFE	740	3163600	1.4%	730	650	909700	-10.9%	TATASTEEL	210	23501500	0.5%	209	200	9927500	-4.3%
HINDALCO	1000	1740900	11.2%	899	900	1315300	0.1%	TCS	3000	3012450	11.3%	2695	2600	907900	-3.5%
HINDUNILVR	2400	1058400	3.3%	2324	2300	733500	-1.0%	TECHM	1760	1035000	17.0%	1505	1420	693000	-5.6%
ICICIBANK	1410	7279300	0.1%	1408	1400	3452400	-0.6%	TITAN	4300	956725	1.2%	4249	4000	392175	-5.9%
INDIGO	5000	414600	0.4%	4980	4700	343500	-5.6%	TRENT	4500	681900	7.5%	4187	4000	315800	-4.5%
INFY	1500	6779600	9.2%	1374	1400	2033200	1.9%	ULTRACEMCO	13000	134400	-0.4%	13052	12900	53250	-1.2%
ITC	330	17312000	-0.7%	332	320	4881600	-3.7%	WIPRO	250	14595000	18.0%	212	205	5208000	-3.3%

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

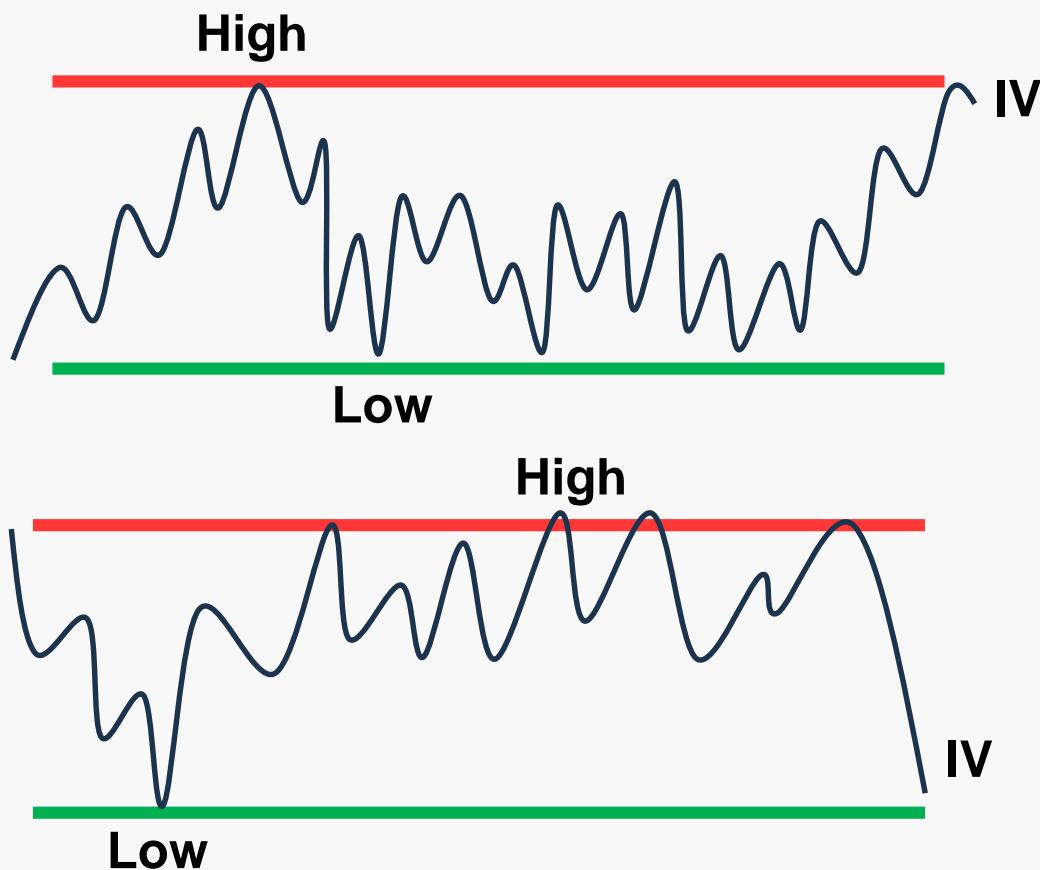
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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

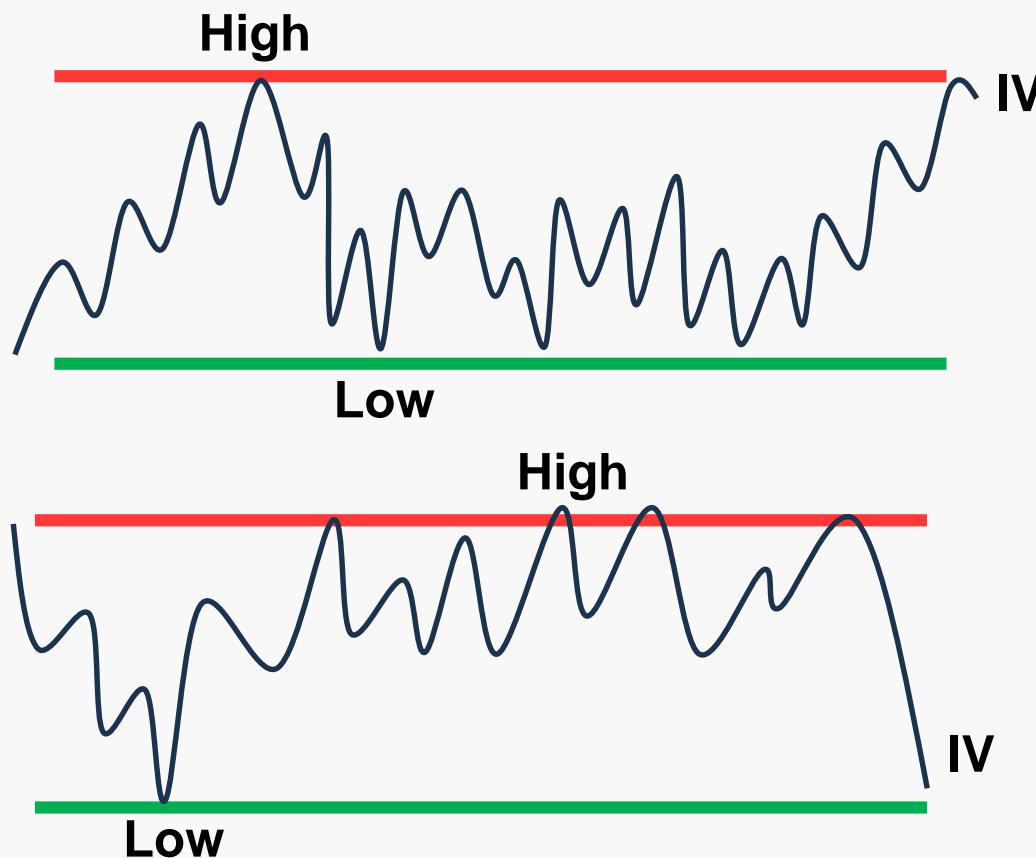
- **Strike concentration:** Visual representation of how many calls and puts are outstanding at each strike in the vicinity of the current underlying price. The strike with the highest call open interest is considered as resistance, while the put strike with the highest number of outstanding positions 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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