



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	25,705	0.5%▲
Open Interest (OI)	1,98,04,850	6.8%▲
Change in OI (abs)	1,98,04,850	12,66,590▲
Premium / Discount (Abs)	-8	21▼
Inference	Long Unwinding	

Bank Nifty Futures

	Value	Change
Most recent settlement	61,238	0.1%▲
Open interest (OI)	19,00,380	4.9%▲
Change in OI (abs)	19,00,380	88,530▲
Premium / Discount (Abs)	-26	33▼
Inference	Long Build Up	

Volatility Insights

	Value	Change
India VIX Index	14.17	0.19▼
Nifty ATM IV (%)	11.94	0.94▲
Bank Nifty ATM IV (%)	17.12	5.84▲
PCR (Nifty)	1.06	0.08▲
PCR (Bank Nifty)	1.02	0.07▼

The FII Long Ratio in Index Futures **jump** to 29.2 %, **up** from 25.2 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NTPC	12,48,06,000	25.7%	373.85	0.6%
IOC	10,03,51,875	11.1%	176.39	1.6%
POWERGRID	8,82,94,900	10.4%	302.3	1.3%
DRREDDY	1,87,67,500	8.0%	1306.5	1.8%
BPCL	4,13,70,325	7.9%	372.2	1.8%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
IDFCFIRSTB	40,44,54,925	41.3%	69.95	-16.1%
UPL	3,68,30,255	17.1%	644.1	-14.4%
VOLTAS	1,21,30,875	9.8%	1541	-0.3%
LTIM	30,63,000	8.8%	4832.5	-1.0%
DIXON	28,13,150	8.3%	10617	-4.2%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KEI	16,41,500	-16.6%	4766	0.2%
CANBK	14,65,35,750	-12.4%	156.15	1.5%
MANKIND	24,00,525	-12.1%	2046.9	0.7%
360ONE	30,73,500	-12.0%	1125	2.1%
TMPV	7,42,16,800	-12.0%	379.05	0.2%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
IRCTC	50,33,875	-26.6%	640.7	-1.0%
ABB	23,75,625	-9.9%	5914	-1.4%
TIINDIA	28,73,400	-9.2%	2534.6	-1.8%
IRFC	6,72,52,000	-8.5%	112.12	-0.1%
ANGELONE	27,56,250	-7.0%	2489.3	-0.2%

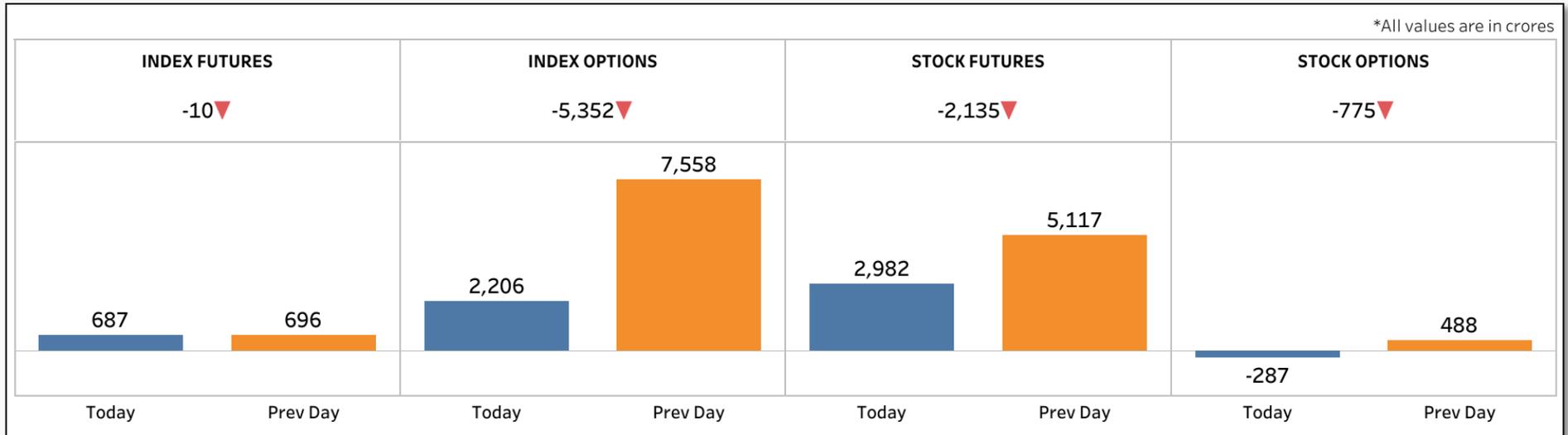
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

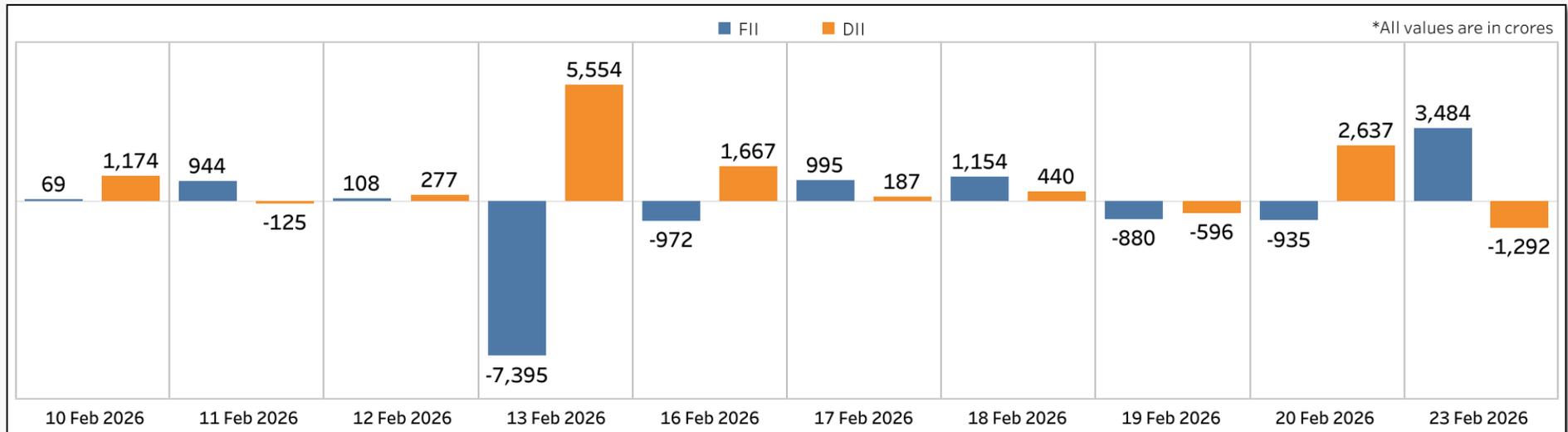
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-94,819 ▼	371 ▲	61,709 ▲	-29,598 ▼	0	-6,374 ▼	9,279 ▲	28,031 ▲
84,147			70,761				33,941
-10,672	4,579	28,911	41,163	0	1,935	12,679	5,910
	4,208	-32,798		0	-4,439	3,400	
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
49,883	-129,085	333,798	1,280,440	1,062	61,260	66,546	-3,919,147
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
431,656 ▲	7,104 ▲	-38,082 ▼	13,827 ▲	-336,839 ▼	-1,101 ▼	-32,903 ▼	-12,260 ▼
175,636		251	38,333	171,874			
-256,020	-6,589		-25,084	-164,965	6,449	-41,839	-50,020
	-13,693	38,333	-38,911		7,550	-8,936	-37,760
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-61,053	69,304	-428,534	2,458,111	10,108	-1,479	28,192	180,596
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day

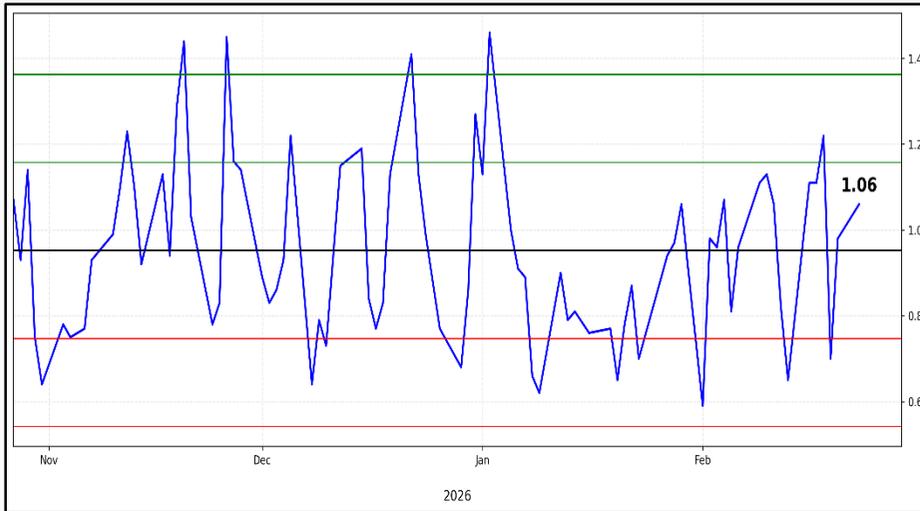
Daily Net Open Interest Change



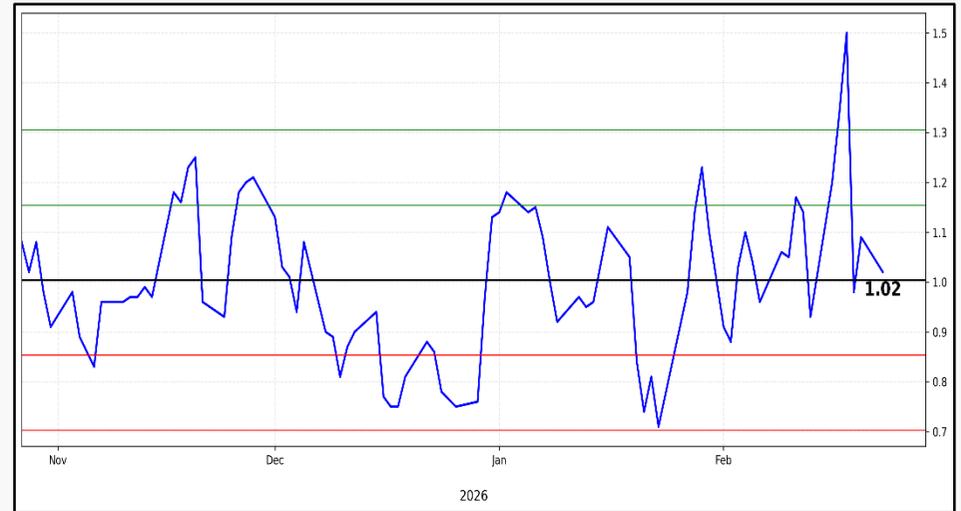
DII and FII Daily Cash Market Flows



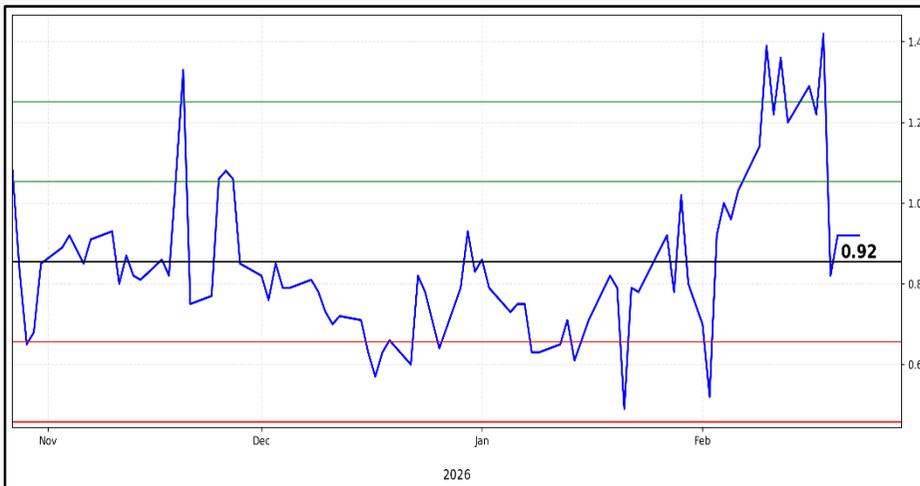
Nifty



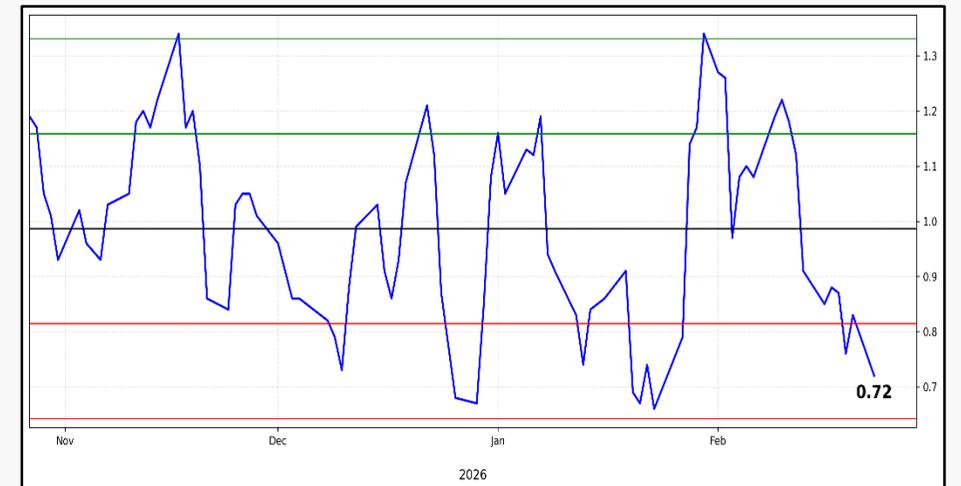
Bank Nifty



Fin Nifty



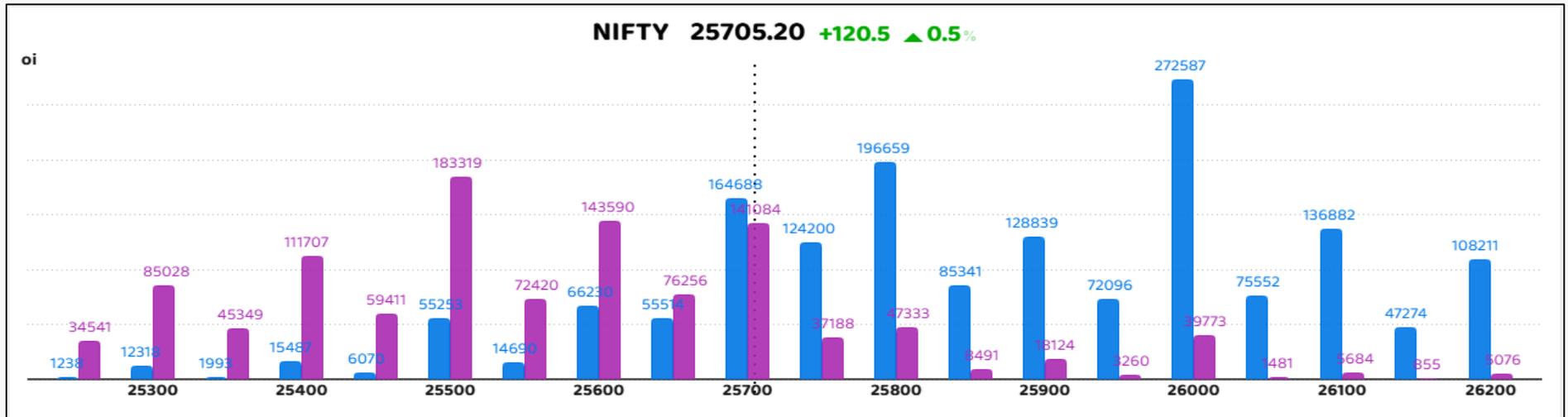
Midcap Select Nifty



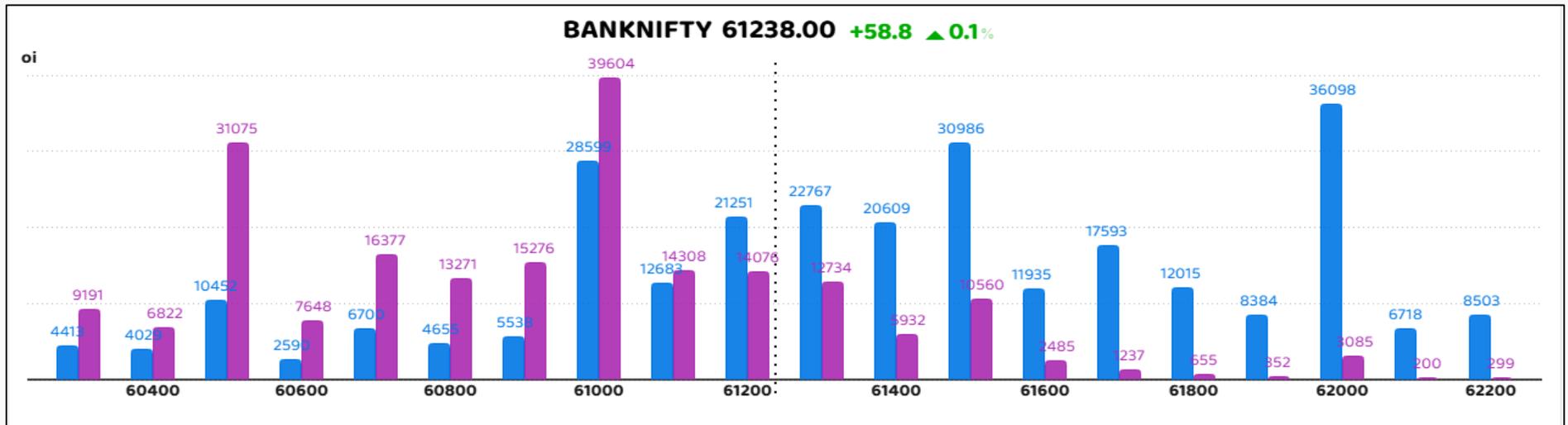
On the day immediately post expiration, PCR values will differ due to the way open interest data for the expired series is treated for the PCR calculation

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

Call ■ Put ■

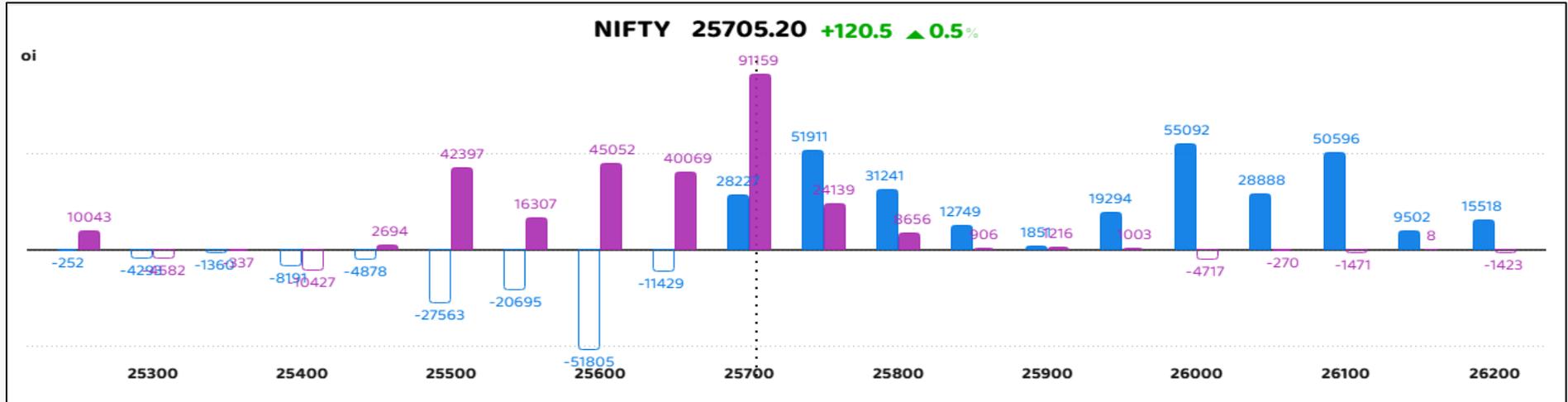


For Nifty, the 26,000 Call and 25,500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 62,000 Call and the 61,000 Put saw the most amount of open interest.

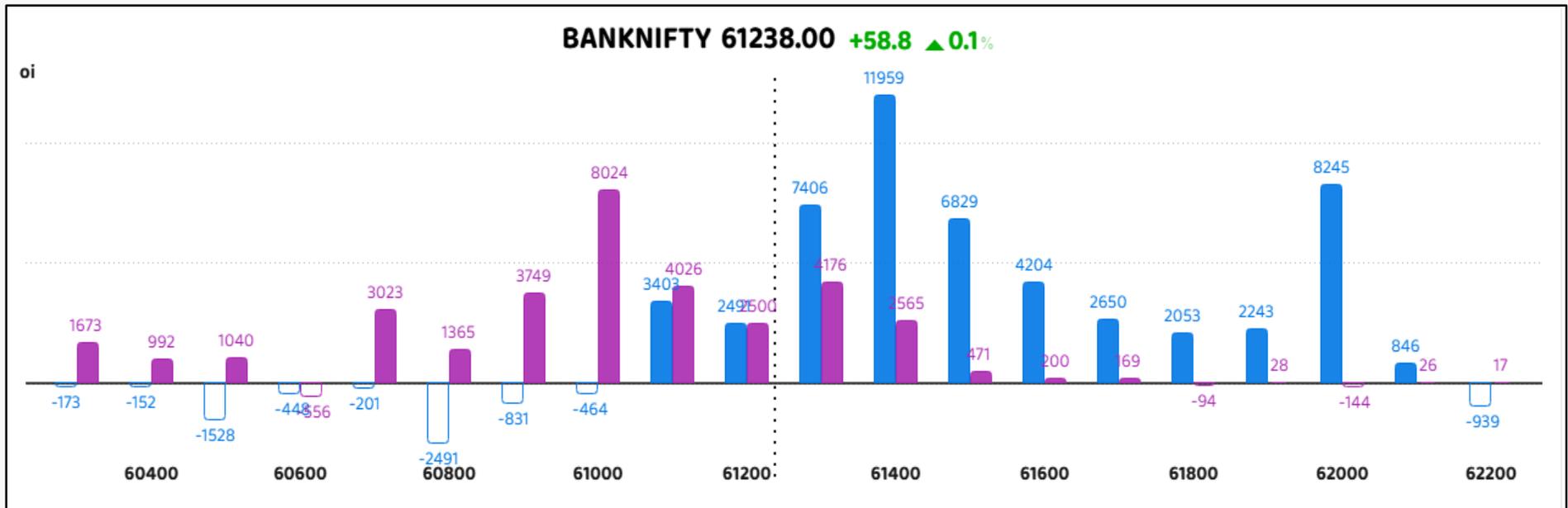


Open Interest Change (Nifty Current Week Expiry & BankNifty Monthly Expiry)

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 26,000 Call and the 25,600 Put



For the Bank Nifty, the biggest open interest changes were seen at the 61,300 Call & the 61,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
IDFC FIRST BANK	70.0	-16.1	52.3	53.0	12.1	98.1
UPL LTD	644.8	-14.3	39.0	42.7	17.5	85.4
SYNGENE INTERNAT	447.0	1.0	34.7	38.7	15.7	82.6
DIXON TECHNOLOGI	10,599.0	-4.3	42.3	53.1	9.2	75.4
HINDUSTAN UNILEV	2,345.4	1.3	18.1	25.3	0.8	70.8

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
GAIL INDIA LTD	167.1	-0.8	21.8	91.4	19.4	3.4
LUPIN LTD	2,241.4	1.0	20.1	40.7	19.1	4.6
NTPC LTD	375.5	0.7	20.5	116.6	14.9	5.5
HDFC LIFE INSURA	742.5	1.9	19.5	68.4	16.6	5.6
ADANI PORTS AND	1,555.8	2.9	26.4	99.7	19.0	9.2

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
IDFC FIRST BANK	70.0	-16.1	52.3	53.0	12.1	100.0
UPL LTD	644.8	-14.3	39.0	42.7	17.5	98.8
TATA CONSULTANCY	2,676.3	-0.4	28.2	44.6	1.6	96.2
TATA ELXSI LTD	4,714.0	-3.0	40.4	51.9	9.1	94.8
HCL TECH LTD	1,426.2	-0.7	31.2	46.0	10.4	93.8

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
RAIL VIKAS NIGAM	319.2	2.3	17.4	127.8	17.4	0.0
JIO FINANCIAL SE	257.8	-0.3	12.2	50.2	11.6	0.5
REC LTD	352.2	-0.6	20.6	57.8	8.0	2.1
LUPIN LTD	2,241.4	1.0	20.1	40.7	19.1	2.2
SUPREME INDS LTD	3,940.6	1.0	26.1	49.9	17.6	2.5

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
MANKIND	2,046.6	1.1	4,591	1,085	4.2
RVNL	319.2	2.3	55,811	14,621	3.8
INDIANB	982.8	3.8	52,088	13,856	3.8
TORNTPHARM	4,307.6	1.6	13,243	3,577	3.7
CUMMINSIND	4,884.3	3.2	1,00,518	27,356	3.7

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
DALBHARAT	2,090.8	1.0	2,979	5,918	2.0
PHOENIXLTD	1,716.3	-1.0	3,179	4,548	1.4
PAGEIND	33,069.4	1.0	15,003	20,266	1.4
APLAPOLLO	2,191.5	0.2	6,097	7,453	1.2
AUBANK	974.1	-5.4	43,538	51,543	1.2

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
CUMMINSIND	4,884.3	3.2	9,985	9,331	100.0
AUBANK	974.1	-5.4	8,841	8,189	100.0
KEI	4,765.6	0.2	3,687	3,486	100.0
UPL	644.8	-14.3	20,179	11,017	100.0
IDFCFIRSTB	70.0	-16.1	35,593	17,815	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
HDFCLIFE	742.4	1.9	6,517	6,515	100.0
DRREDDY	1,307.4	2.1	8,342	7,140	100.0
DLF	626.3	-0.5	15,839	15,196	100.0
CONCOR	507.0	0.8	8,099	8,038	100.0
BAJAJHLDNG	11,501.0	2.8	1,759	1,400	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
ADANIPTS	1,555.8	2.9	1,12,569	35,254	100.0
HAL	4,025.4	-3.5	2,14,266	2,14,114	100.0
DIXON	10,598.7	-4.3	1,69,931	1,39,805	100.0
BPCL	372.1	1.6	21,452	15,868	100.0
BAJAJHLDNG	11,501.0	2.8	48,507	6,951	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
ADANIPTS	1,555.8	2.9	37,950	27,579	100.0
CIPLA	1,326.5	-1.1	15,109	11,875	100.0
CAMS	718.0	-0.3	4,137	3,213	100.0
HINDZINC	590.8	0.3	42,833	34,206	100.0
EXIDEIND	338.4	0.6	3,661	3,167	100.0

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
IDFCFIRSTB	70.0	-16.1	35,593	15,230	2.3
UPL	644.8	-14.3	20,179	9,920	2.0
ABB	5,917.4	-1.2	20,195	12,592	1.6
CUMMINSIND	4,884.3	3.2	9,985	6,569	1.5
AUBANK	974.1	-5.4	8,841	6,749	1.3

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
IDFCFIRSTB	70.0	-16.1	25,273	10,710	2.4
UPL	644.8	-14.3	11,521	6,007	1.9
INDIANB	982.8	3.8	6,565	4,339	1.5
ONGC	275.6	-1.1	32,775	21,856	1.5
BAJAJHLDNG	11,501.0	2.8	1,759	1,233	1.4

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
BAJAJHLDNG	11,501.0	2.8	48,507	3,586	13.5
IDFCFIRSTB	70.0	-16.1	1,57,462	14,136	11.1
UPL	644.8	-14.3	1,01,382	11,636	8.7
ADANIPOINTS	1,555.8	2.9	1,12,569	22,508	5.0
UNITDSPR	1,416.9	2.7	23,954	5,788	4.1

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
UPL	644.8	-14.3	92,372	5,528	16.7
IDFCFIRSTB	70.0	-16.1	1,14,180	7,897	14.5
BAJAJHLDNG	11,501.0	2.8	20,376	2,078	9.8
AUBANK	974.1	-5.4	51,543	5,433	9.5
HAL	4,025.4	-3.5	1,93,327	34,523	5.6

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
ADANIANT	2300	658788	5.0%	2191	2000	561453	-8.7%	JIOFIN	270	5515450	4.7%	258	250	3731800	-3.0%
ADANIPTS	1600	833625	2.8%	1556	1500	1012700	-3.6%	JSWSTEEL	1400	791100	12.9%	1241	1200	942975	-3.3%
APOLLOHOSP	8000	164625	4.0%	7693	7100	102625	-7.7%	KOTAKBANK	420	2736000	-2.5%	431	410	4628000	-4.8%
ASIANPAINT	2500	481500	2.9%	2430	2100	468500	-13.6%	LT	4100	1685075	-7.2%	4418	4100	976675	-7.2%
AXISBANK	1380	2854375	-0.5%	1387	1350	1336875	-2.6%	M&M	3800	889400	10.2%	3447	3300	295200	-4.3%
BAJAJ-AUTO	10000	170925	1.0%	9906	9700	72675	-2.1%	MARUTI	15500	185250	2.8%	15072	14500	102450	-3.8%
BAJAJFINSV	2200	422500	7.2%	2052	1680	670500	-18.1%	MAXHEALTH	1120	210525	3.4%	1084	1000	437850	-7.7%
BAJFINANCE	1100	1072500	6.7%	1031	950	1289250	-7.9%	NESTLEIND	1350	396000	2.7%	1315	1100	162000	-16.4%
BEL	450	7810425	2.3%	440	420	2958300	-4.5%	NTPC	370	30199500	-1.5%	375	370	13200000	-1.5%
BHARTIARTL	2020	1719500	1.1%	1997	1760	588525	-11.9%	ONGC	263.75	15669000	-4.3%	276	263.75	6804000	-4.3%
CIPLA	1400	730875	5.5%	1327	1180	399375	-11.0%	POWERGRID	290	8054100	-4.4%	303	290	3323100	-4.4%
COALINDIA	460	4189050	8.0%	426	400	1355400	-6.1%	RELIANCE	1400	6464500	-2.0%	1428	1400	4141500	-2.0%
DRREDDY	1280	2088125	-2.1%	1307	1280	911250	-2.1%	SBILIFE	2040	989625	-3.3%	2110	2040	547125	-3.3%
EICHERMOT	8300	156800	3.3%	8039	7700	158700	-4.2%	SBIN	1080	2317500	-12.0%	1228	1200	5602500	-2.3%
ETERNAL	300	8773650	11.9%	268	265	4738450	-1.1%	SHRIRAMFIN	1100	693825	3.3%	1065	1020	764775	-4.2%
GRASIM	3200	288500	11.4%	2873	2800	248500	-2.6%	SUNPHARMA	1720	1946350	-0.7%	1732	1700	1046150	-1.9%
HCLTECH	1600	1934800	12.2%	1426	1400	499450	-1.8%	TATACONSUM	1200	381700	2.4%	1172	1120	460350	-4.4%
HDFCBANK	950	5463150	2.9%	924	950	1768800	2.9%	TMPV	390	3660800	2.6%	380	360	1768000	-5.3%
HDFCLIFE	800	2135100	7.8%	742	650	907500	-12.5%	TATASTEEL	210	17385500	0.9%	208	200	6704500	-3.9%
HINDALCO	1000	1026200	9.1%	916	860	521500	-6.1%	TCS	3000	1863925	12.1%	2676	2600	669375	-2.9%
HINDUNILVR	2400	662100	2.3%	2345	2300	674100	-1.9%	TECHM	1780	844200	23.5%	1441	1620	578400	12.4%
ICICIBANK	1410	6875400	0.8%	1399	1360	1839600	-2.8%	TITAN	4400	537425	3.0%	4273	3900	252875	-8.7%
INDIGO	4750	313200	-2.3%	4862	4700	240450	-3.3%	TRENT	4500	534600	11.0%	4055	3800	221400	-6.3%
INFY	1400	3614800	5.5%	1328	1320	1364800	-0.6%	ULTRACEMCO	13000	73450	0.2%	12976	11200	43700	-13.7%
ITC	330	16846400	1.4%	325	320	4372800	-1.7%	WIPRO	250	9321000	21.4%	206	220	3504000	6.9%

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

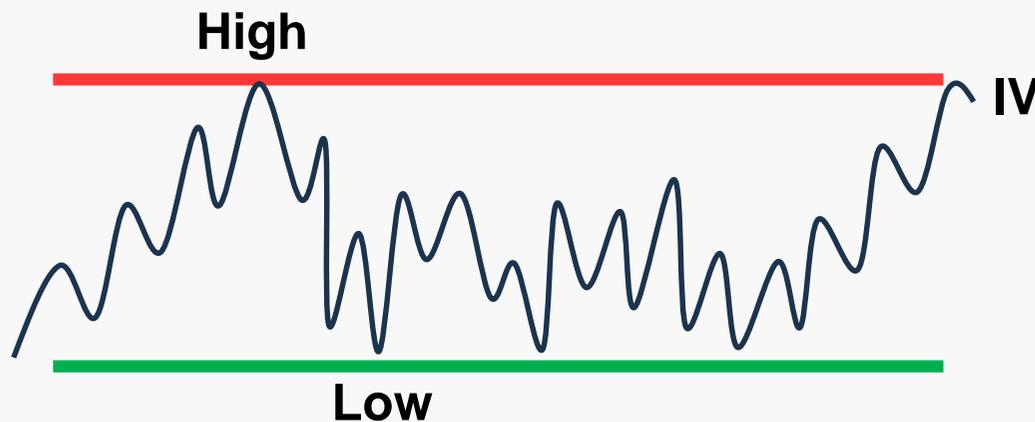
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

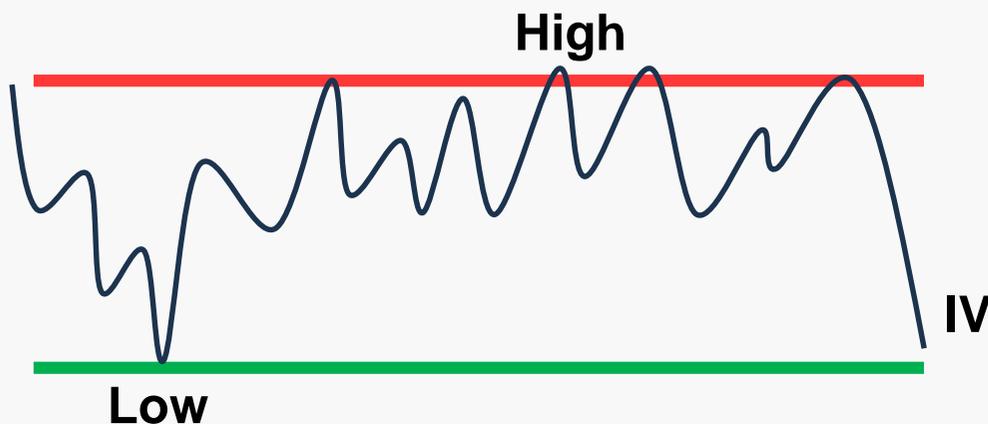
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

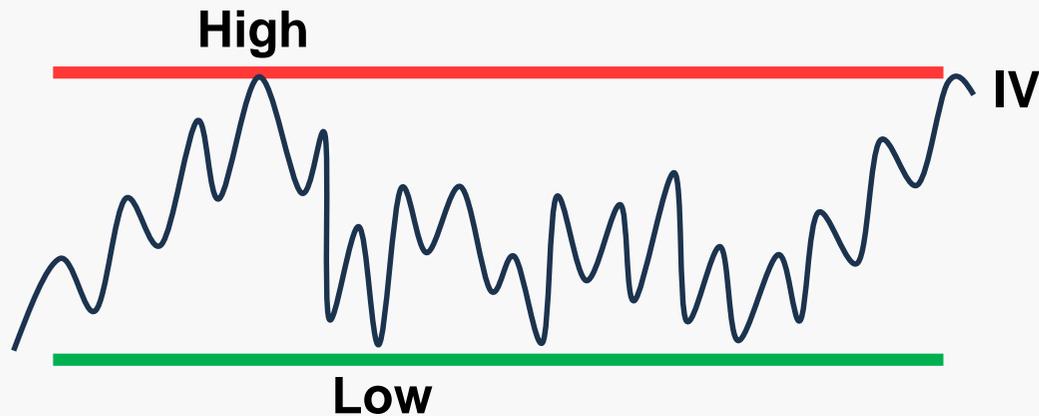


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

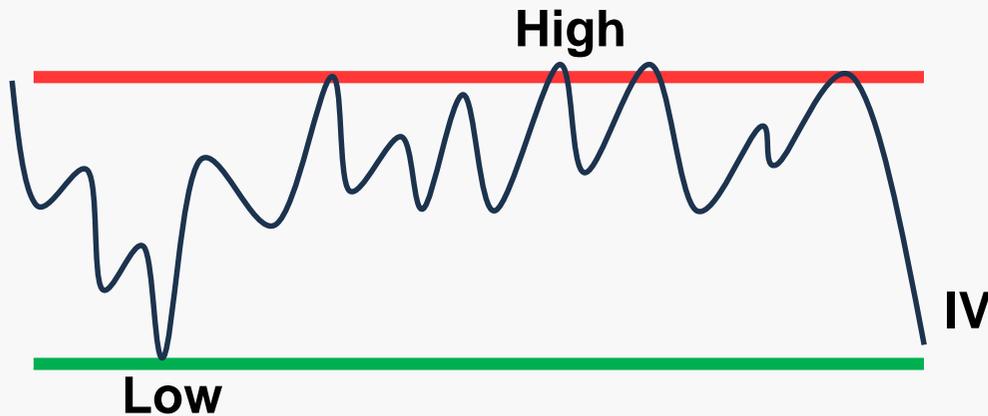


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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