



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	25,849	0.1%▲
Open Interest (OI)	1,70,35,070	2.3%▼
Change in OI (abs)	1,70,35,070	4,00,075▼
Premium / Discount (Abs)	73	17▼
<b>Inference</b>	<b>Short Covering</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	60,418	0.4%▲
Open interest (OI)	16,92,060	11.3%▲
Change in OI (abs)	16,92,060	1,71,810▲
Premium / Discount (Abs)	180	11▲
<b>Inference</b>	<b>Long Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	12.25	0.64▼
Nifty ATM IV (%)	11.03	0.72▼
Bank Nifty ATM IV (%)	12.06	0.75▼
PCR (Nifty)	1.07	0.05▲
PCR (Bank Nifty)	1.10	0.07▲

The FII Long Ratio in Index Futures **Jump** to 18.7 %, **up** from 16.9 % in the previous session.

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NHPC	8,88,38,400	13.9%	77.83	0.2%
OIL	1,59,06,800	13.2%	505.1	3.9%
HDFCAMP	69,45,300	8.5%	2737.2	2.4%
TRENT	81,73,900	7.7%	4026.9	5.0%
IOC	9,88,74,750	7.4%	173.58	3.2%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
TCS	2,49,62,875	22.2%	3012.2	-6.7%
POLICYBZR	83,88,100	17.4%	1446.9	-1.5%
WIPRO	14,06,88,000	16.4%	233.81	-4.1%
INFY	7,12,78,800	13.2%	1537.9	-7.5%
HAL	1,01,50,650	13.0%	4207.8	-5.8%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PGEL	1,14,58,900	-9.3%	594	6.1%
DIXON	26,73,650	-7.8%	11694	5.9%
RVNL	6,09,58,825	-5.2%	314.1	3.5%
ETERNAL	25,94,96,825	-4.9%	294.7	5.2%
ANGELONE	30,18,500	-4.8%	2687.2	3.9%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PREMIERENE	48,00,100	-3.2%	782.95	-1.0%
AUBANK	1,94,00,000	-2.8%	985.6	-0.1%
NESTLEIND	1,64,48,500	-2.1%	1301.6	-0.3%
CONCOR	3,20,67,500	-1.4%	525.05	-0.3%
ITC	21,16,17,600	-0.6%	314.5	-1.0%

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

INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-54,684 ▼	-29,551 ▼	70,780 ▲	-53,392 ▼
25,811	80,495		
10,136	39,687		
			54,277
			885
		-57,135	
			-127,915
Net O/S -67,959	Net O/S -147,316	Net O/S 233,915	Net O/S 1,371,929
Today	Prev Day	Today	Prev Day

### DII

INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-2,010 ▼	-23,892 ▼	14,675 ▲	-60,545 ▼
			77,252
			16,707
			-21,375
1,885	17,612		
-125	-6,280		
			-6,700
			-21,375
Net O/S 568	Net O/S 81,551	Net O/S 63,106	Net O/S -4,228,290
Today	Prev Day	Today	Prev Day

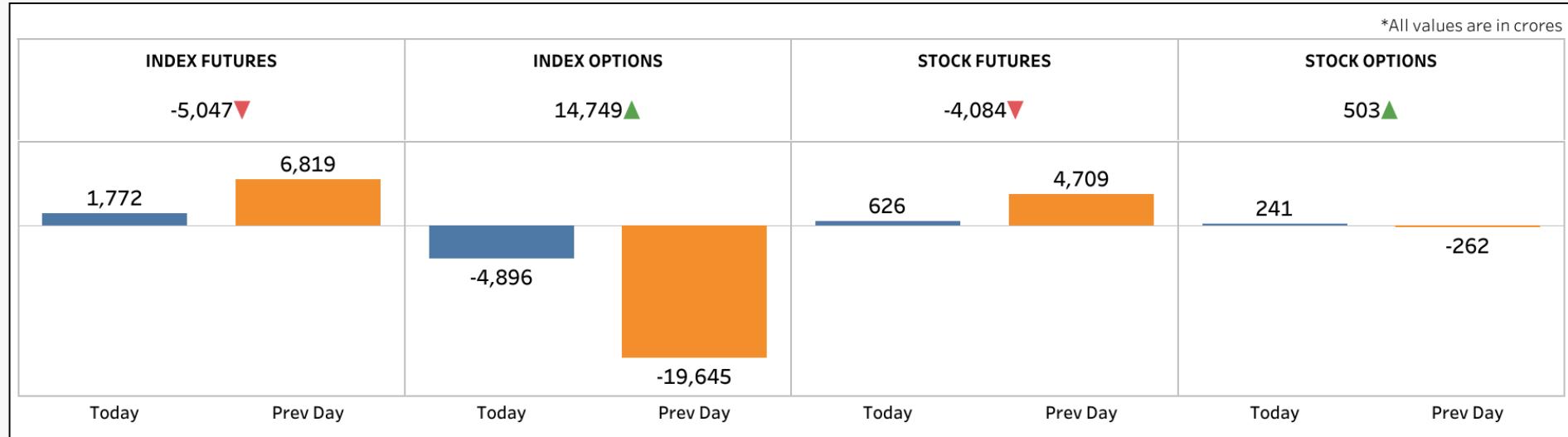
### Clients

INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
82,516 ▲	19,047 ▲	-11,592 ▼	64,644 ▲
		112,134	123,726
		8,163	
			-56,481
-115,643	-6,693	-25,740	
			-198,159
Net O/S -34,613	Net O/S 96,526	Net O/S -284,335	Net O/S 2,487,156
Today	Prev Day	Today	Prev Day

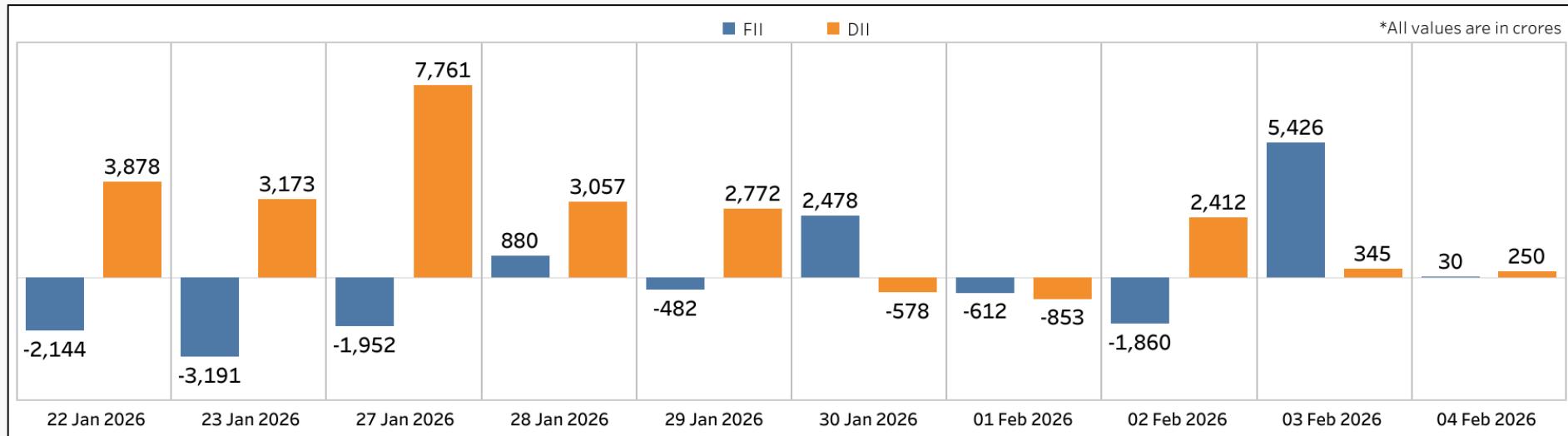
### Pro

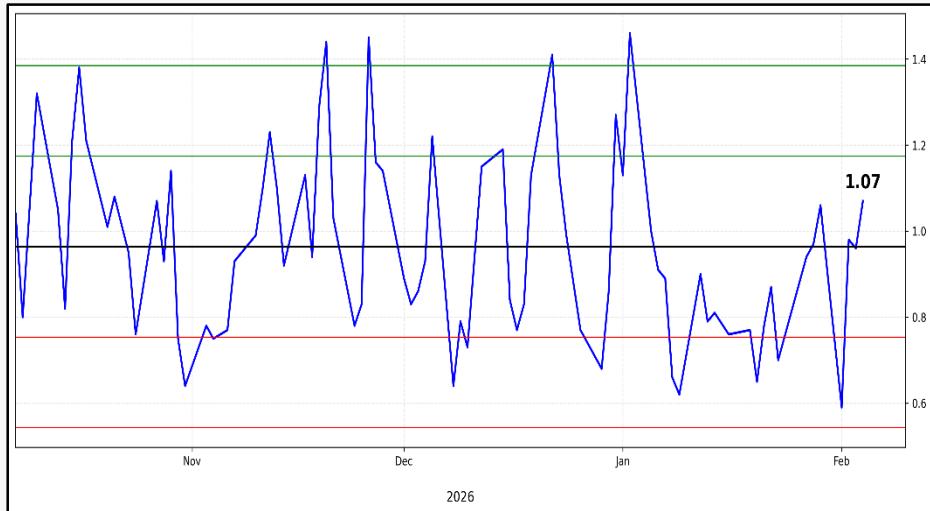
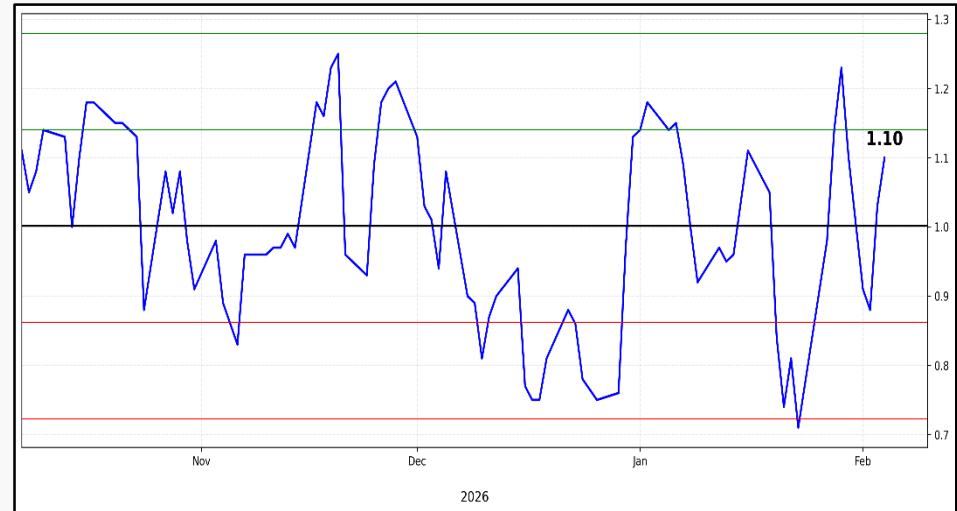
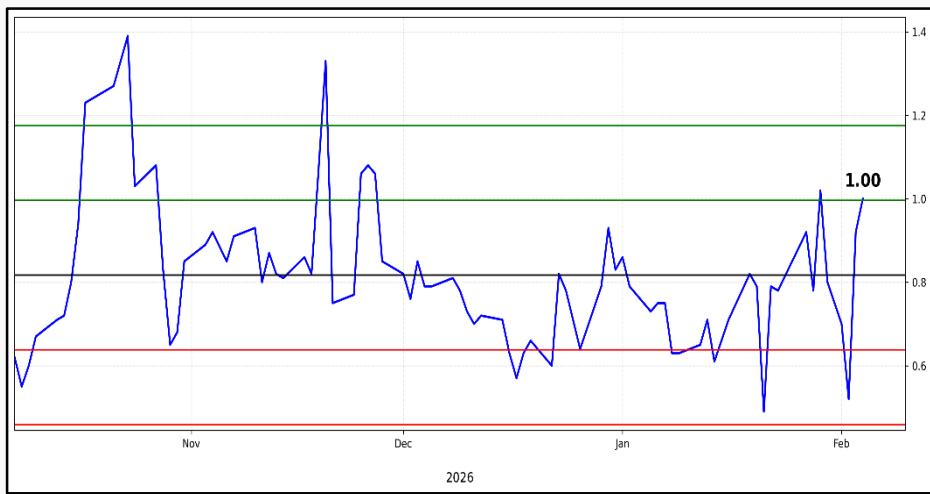
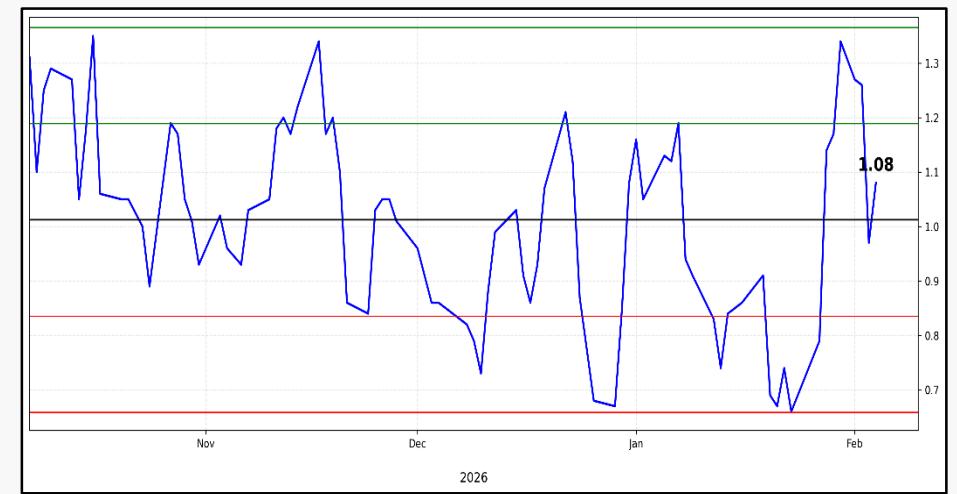
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-25,820 ▼	34,396 ▲	-73,863 ▼	49,293 ▲
89,957	115,777		
	2,837		
			25,564
			-31,559
			-48,299
			-25,755
			-75,048
Net O/S 102,003	Net O/S -30,761	Net O/S -12,686	Net O/S 369,205
Today	Prev Day	Today	Prev Day

### Daily Net Open Interest Change



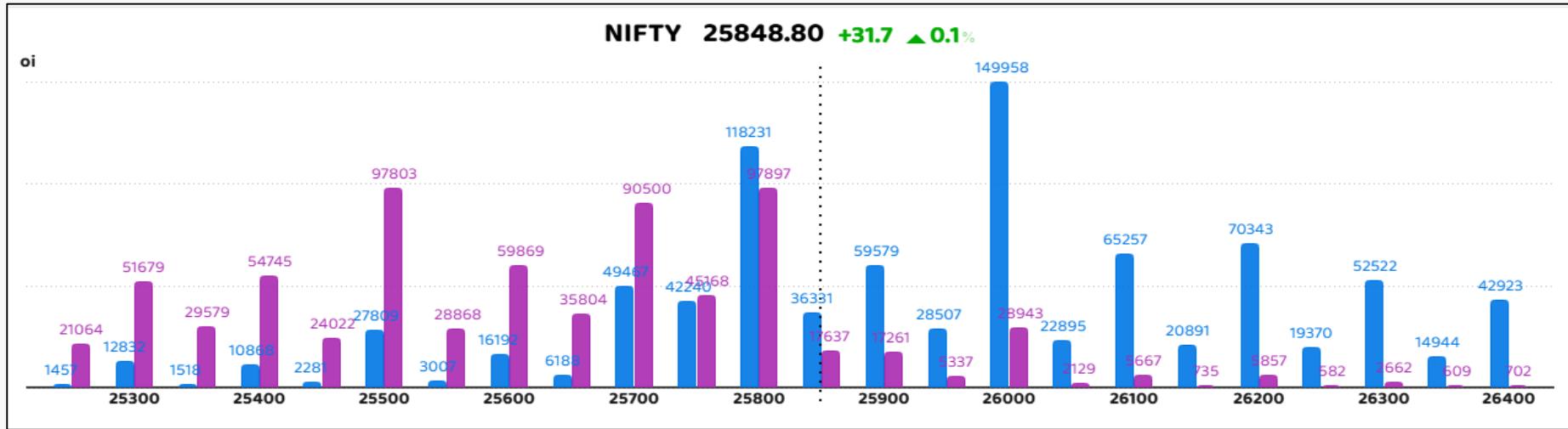
### DII and FII Daily Cash Market Flows



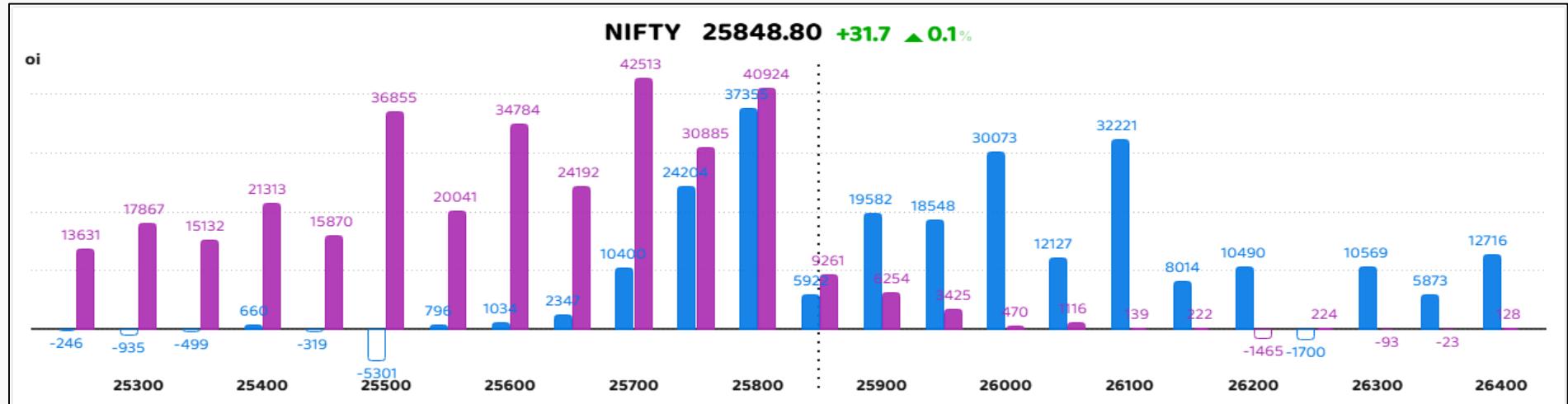
**Nifty**

**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

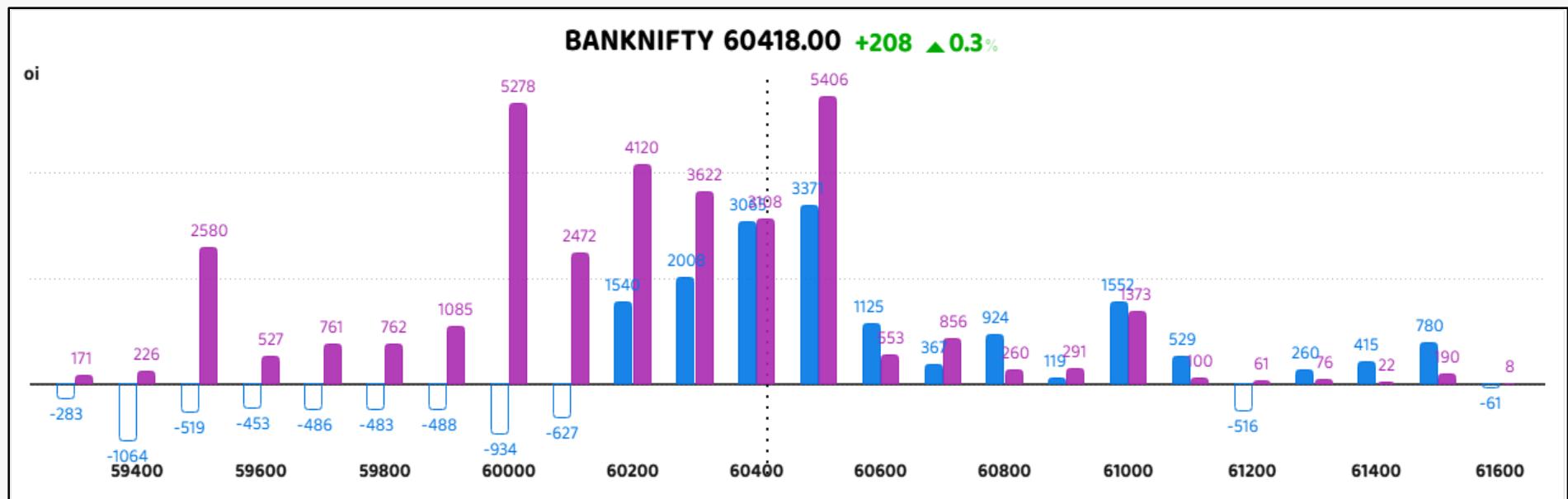
## Positioning Stack by Strike (Nifty Current Week Expiry & BankNifty Monthly Expiry)

 Call  Put 


## 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 60,500 Call & the 60,500 Put

### Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HINDUSTAN UNILEV	2,371.0	0.1	22.6	25.3	0.8	88.8
BRITANNIA INDS	5,879.0	-0.1	26.5	29.5	15.9	78.1
TATA CONSULTANCY	2,999.1	-7.0	27.9	36.2	1.6	75.9
KOTAK MAHINDRA	412.4	-0.8	24.4	32.4	1.1	74.4
DIVI LABS LTD	6,054.5	-2.5	31.6	41.3	4.8	73.6

### Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HINDUSTAN AERONA	4,217.1	-5.7	1.9	51.6	1.9	0.0
HDFC LIFE INSURA	722.5	0.3	18.6	68.4	16.6	3.9
NTPC LTD	367.3	2.4	19.2	116.6	14.9	4.3
GAIL INDIA LTD	165.4	1.6	24.3	91.4	19.4	6.8
WIPRO LTD	233.3	-3.9	26.9	93.6	19.1	10.5

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
KAYNES TECHNOLOG	3,779.4	6.5	58.9	62.9	30.3	99.2
RAIL VIKAS NIGAM	321.0	-1.1	65.7	127.8	21.0	98.9
MUTHOOT FINANCE	3,721.7	2.7	40.8	49.6	22.2	98.4
TATA CONSULTANCY	2,999.1	-7.0	27.9	36.2	1.6	97.9
FORTIS HEALTHCAR	859.9	-0.4	33.2	36.0	21.3	97.8

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
HINDUSTAN AERONA	4,217.1	-5.7	1.9	51.6	1.9	0.0
SUPREME INDs LTD	3,741.0	1.7	27.2	49.9	24.7	4.8
HDFC LIFE INSURA	722.5	0.3	18.6	68.4	16.6	6.9
ICICI LOMBARD GE	1,854.0	-0.4	20.4	38.2	3.2	7.7
RBL BANK LTD	305.8	0.3	22.1	71.1	10.6	8.4

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
SUPREMEIND	3,741.0	1.7	6,029	1,205	5.0
PETRONET	298.5	0.4	11,246	2,562	4.4
RECLTD	381.6	2.4	67,891	16,468	4.1
IRCTC	622.3	1.3	10,495	2,628	4.0
OIL	507.1	3.7	38,614	9,773	4.0

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
DALBHARAT	2,141.2	1.4	1,488	2,663	1.8
MFSL	1,708.2	2.0	3,738	4,047	1.1
DELHIVERY	448.3	1.1	2,059	2,128	1.0
CAMS	735.6	1.0	2,046	1,981	1.0
BAJFINANCE	963.3	-0.1	83,575	79,825	1.0

### Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
BDL	1,304.0	-1.1	29,226	27,998	100.0
MANKIND	2,089.3	-3.4	7,737	7,019	100.0
POLICYBZR	1,439.9	-1.5	13,585	11,711	100.0
BEL	439.2	0.1	69,602	70,673	98.5
NHPC	78.5	0.0	7,243	7,695	94.1

### Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
POWERGRID	289.4	2.2	19,922	18,539	100.0
HUDCO	197.2	3.0	7,744	7,434	100.0
SWIGGY	321.1	1.1	5,783	5,931	97.5
LODHA	1,056.5	2.4	5,635	6,165	91.4
MANKIND	2,089.3	-3.4	3,366	3,730	90.2

### Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
NHPC	78.5	0.0	19,042	21,233	89.7
WAAREEENER	3,105.6	0.1	23,926	26,818	89.2
POWERGRID	289.4	2.2	73,538	92,543	79.5
INFY	1,535.8	-7.3	3,83,444	6,51,978	58.8
NMDC	85.9	5.2	51,787	98,559	52.5

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
INFY	1,535.8	-7.3	3,09,498	3,64,212	85.0
POWERGRID	289.4	2.2	27,849	35,063	79.4
NHPC	78.5	0.0	8,545	11,602	73.7
TIINDIA	2,637.4	5.4	10,818	15,465	70.0
MANKIND	2,089.3	-3.4	10,459	21,141	49.5

### Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
VBL	444.9	-1.4	23,339	9,393	2.5
BDL	1,304.0	-1.1	29,226	13,277	2.2
POLICYBZR	1,439.9	-1.5	13,585	6,571	2.1
MANKIND	2,089.3	-3.4	7,737	3,791	2.0
KPITTECH	981.4	-0.9	10,325	5,800	1.8

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
DALBHARAT	2,141.2	1.4	5,567	2,621	2.1
POLICYBZR	1,439.9	-1.5	7,425	3,787	2.0
LT	4,087.0	1.2	32,504	19,014	1.7
SUNPHARMA	1,704.4	0.1	19,624	11,635	1.7
ADANIPORTS	1,567.8	2.4	19,212	11,437	1.7

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
SAIL	157.3	1.9	7,516	309	24.3
PIDILITIND	1,460.3	2.3	17,517	2,361	7.4
TIINDIA	2,637.4	5.4	29,083	4,814	6.0
EXIDEIND	341.5	4.1	36,247	6,645	5.5
POWERGRID	289.4	2.2	73,538	15,640	4.7

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SAIL	157.3	1.9	3,573	235	15.2
PERSISTENT	5,986.0	-4.7	39,718	7,902	5.0
BAJAJFINSV	2,019.6	0.3	43,410	9,116	4.8
PIDILITIND	1,460.3	2.3	5,656	1,191	4.8
POWERGRID	289.4	2.2	27,849	5,937	4.7

## 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	910314	-1.3%	2228	2200	1112709	-1.3%	JIOFIN	300	16341900	11.9%	268	260	5320400	-3.0%
ADANIPORTS	1600	1366100	2.0%	1568	1500	1414550	-4.3%	JSWSTEEL	1400	786375	14.0%	1228	1100	619650	-10.4%
APOLLOHOSP	8000	160875	12.4%	7116	6800	106875	-4.4%	KOTAKBANK	420	4354000	1.9%	412	410	4214000	-0.6%
ASIANPAINT	2800	891750	14.2%	2453	2100	526750	-14.4%	LT	4000	910700	-2.1%	4087	3900	855575	-4.6%
AXISBANK	1370	3471250	2.3%	1339	1300	1420625	-2.9%	M&M	3600	605600	0.7%	3574	3500	346200	-2.1%
BAJAJ-AUTO	10000	148800	3.7%	9639	8800	85200	-8.7%	MARUTI	16000	353050	6.2%	15071	14000	113900	-7.1%
BAJAJFINSV	2200	888250	8.9%	2020	1680	701500	-16.8%	MAXHEALTH	1000	594825	-2.5%	1025	940	259875	-8.3%
BAJFINANCE	1000	2224500	3.8%	963	950	2255250	-1.4%	NESTLEIND	1350	519500	3.6%	1303	1300	275500	-0.2%
BEL	450	12748050	2.5%	439	400	4839300	-8.9%	NTPC	370	14485500	0.7%	367	340	3519000	-7.4%
BHARTIARTL	2100	1433075	3.7%	2026	2000	651225	-1.3%	ONGC	270	9598500	1.1%	267	250	3141000	-6.3%
CIPLA	1400	849000	5.5%	1327	1300	618000	-2.0%	POWERGRID	300	5517600	3.7%	289	270	2870900	-6.7%
COALINDIA	440	5013900	1.2%	435	420	2720250	-3.4%	RELIANCE	1400	7161500	-3.9%	1457	1400	3221000	-3.9%
DRREDDY	1250	714375	0.8%	1240	1200	372500	-3.2%	SBILIFE	2040	1175625	-0.1%	2042	2000	279750	-2.0%
EICHERMOT	8000	128900	9.9%	7278	6800	162500	-6.6%	SBIN	1100	3870000	3.0%	1068	1000	3972000	-6.4%
ETERNAL	300	8620875	2.0%	294	270	5803025	-8.2%	SHIRIRAMFIN	1000	1242450	0.1%	999	900	852225	-9.9%
GRASIM	3200	243250	12.5%	2845	2600	170750	-8.6%	SUNPHARMA	1640	1564850	-3.8%	1704	1600	739200	-6.1%
HCLTECH	1800	973700	11.0%	1622	1500	632450	-7.5%	TATACONSUM	1200	568700	4.1%	1153	1120	521400	-2.9%
HDFCBANK	1000	5790400	4.9%	953	950	2515150	-0.3%	TMPV	400	3704000	6.5%	375	300	2415200	-20.1%
HDFCLIFE	800	2245100	10.7%	723	720	968000	-0.3%	TATASTEEL	200	15669500	2.4%	195	190	9042000	-2.8%
HINDALCO	1000	1468600	3.6%	965	900	982800	-6.7%	TCS	3200	1878450	6.7%	2999	3000	1160250	0.0%
HINDUNILVR	2500	513600	5.4%	2371	2340	516300	-1.3%	TECHM	1780	1167000	8.2%	1645	1540	634200	-6.4%
ICICIBANK	1360	4806900	-3.4%	1408	1400	2634800	-0.6%	TITAN	4200	289275	1.4%	4144	4000	299775	-3.5%
INDIGO	4750	336000	-4.2%	4961	4900	309300	-1.2%	TRENT	4500	438200	12.1%	4013	3800	329200	-5.3%
INFY	1700	4725600	10.7%	1536	1400	2591200	-8.8%	ULTRACEMCO	13000	111700	1.5%	12806	11200	50150	-12.5%
ITC	323.5	19004800	3.1%	314	293.5	6956800	-6.5%	WIPRO	250	11274000	7.1%	233	234	3252000	0.3%

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

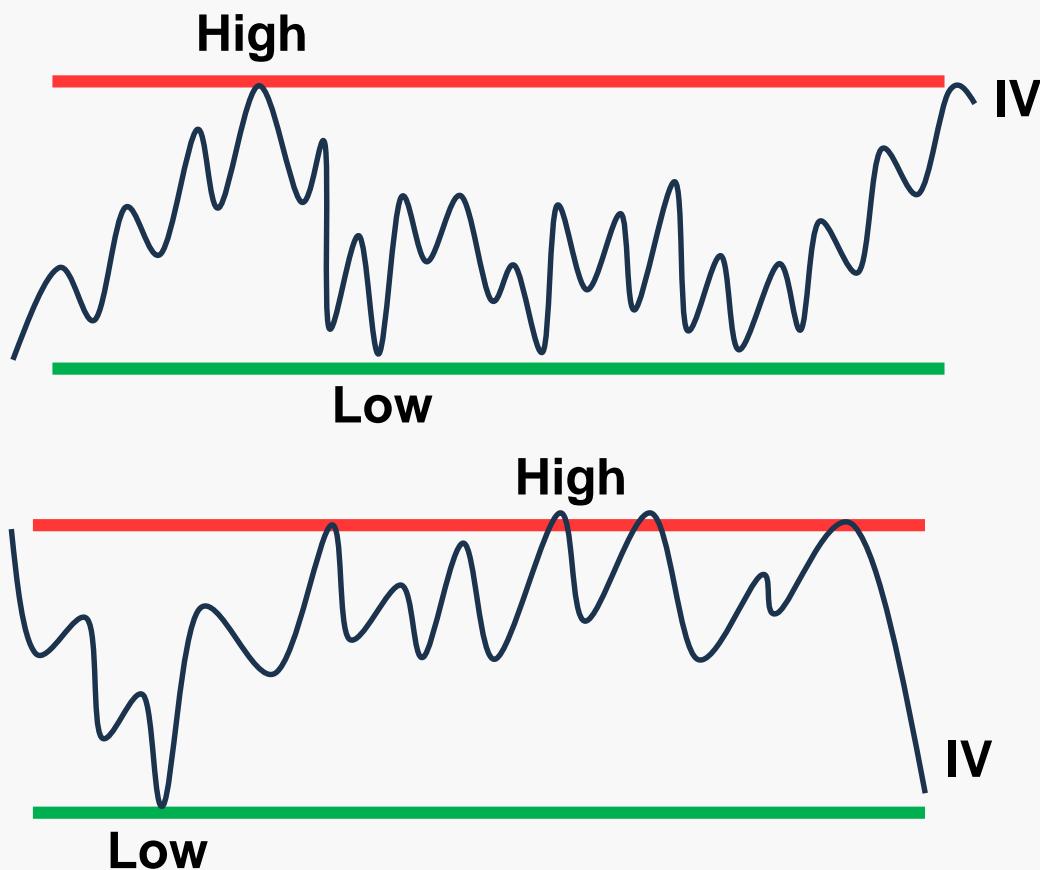
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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](http://www.nseindia.com), Bloomberg, MyFnO

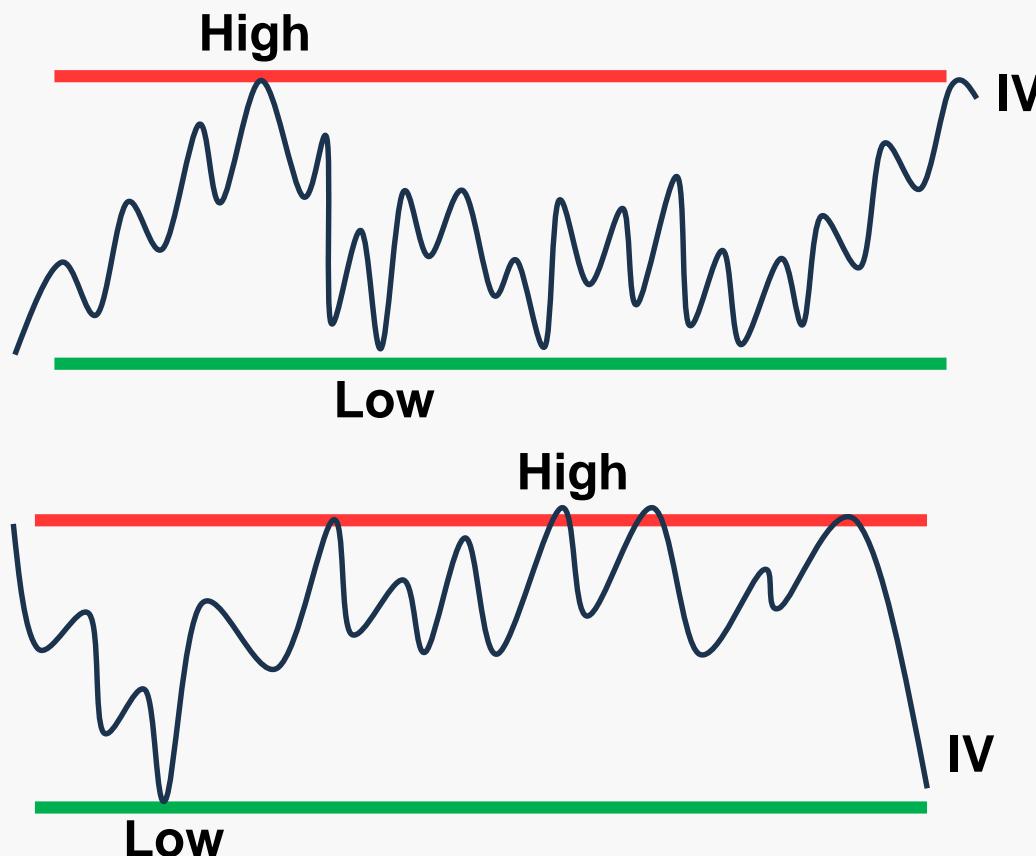
- **Strike concentration:** Visual representation of how many calls and puts are outstanding at each strike in the vicinity of the current underlying price. The strike with the highest call open interest is considered as resistance, while the put strike with the highest number of outstanding positions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