



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	25,446	1.5%▼
Open Interest (OI)	1,82,52,845	2.8%▲
Change in OI (abs)	1,82,52,845	5,01,670▲
Premium / Discount (Abs)	-8	17▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	60,717	1.3%▼
Open interest (OI)	17,78,940	7.3%▼
Change in OI (abs)	17,78,940	1,40,490▼
Premium / Discount (Abs)	-23	27▲
Inference	Long Unwinding	

Volatility Insights

	Value	Change
India VIX Index	13.46	1.24▲
Nifty ATM IV (%)	12.35	2.62▲
Bank Nifty ATM IV (%)	11.90	1.31▲
PCR (Nifty)	0.70	0.52▼
PCR (Bank Nifty)	0.98	0.52▼

The FII Long Ratio in Index Futures **jump** to 23.2 %, **up** from 22.8 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ONGC	13,17,06,000	9.8%	274.05	3.6%
HDFCLIFE	3,99,43,200	7.7%	732.95	0.6%
DRREDDY	1,68,38,750	5.8%	1282.5	0.1%
SYNGENE	1,29,44,000	3.9%	437.95	0.9%
DIVISLAB	32,42,900	0.9%	6298	0.4%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ALKEM	14,40,125	11.0%	5347	-1.2%
COFORGE	2,10,07,875	10.5%	1362.9	-0.8%
TVSMOTOR	93,64,775	10.2%	3826.7	-1.4%
PERSISTENT	42,24,600	8.8%	5245.5	-4.9%
SRF	43,45,000	8.8%	2675.5	-2.0%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
IRCTC	98,66,500	-26.5%	627.4	1.1%
RBLBANK	5,93,18,525	-12.8%	331.75	1.8%
ASTRAL	94,85,150	-6.4%	1618.8	0.0%
SAMMAANCAP	10,63,82,000	-4.8%	151.23	1.6%
OIL	2,16,49,600	-3.4%	476.2	4.9%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KFINTECH	50,19,000	-16.2%	1016.7	-2.4%
IREDA	7,77,63,000	-10.9%	125.41	-2.0%
RVNL	7,25,73,225	-10.7%	297.05	-0.5%
DMART	60,13,350	-10.0%	3823.5	-2.2%
UNIONBANK	6,24,05,775	-9.4%	189.56	-1.7%

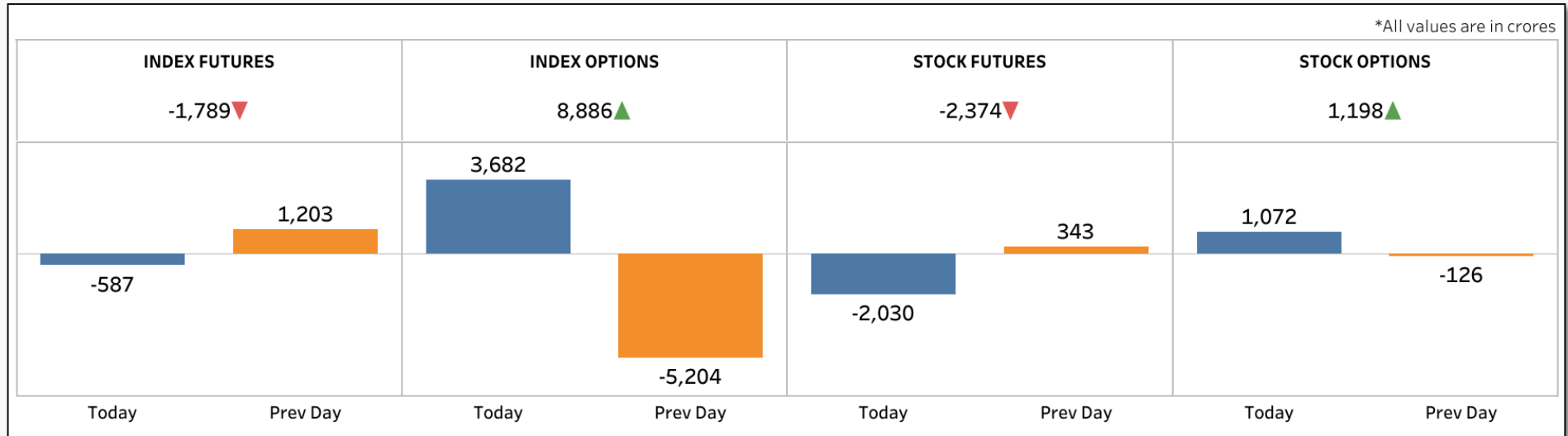
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

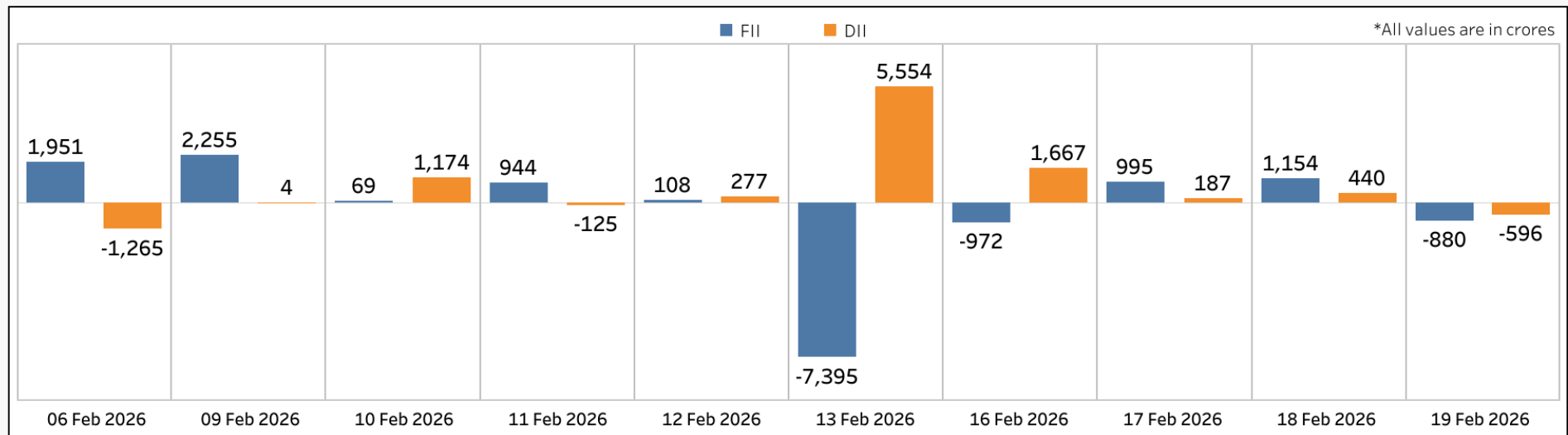
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-62,054 ▼	-9,942 ▼	105,041 ▲	-29,439 ▼	-185 ▼	-3,454 ▼	-3,250 ▼	44,132 ▲
		70,674					74,792
4,552	6,664						30,660
-57,502	-3,278	-34,367	-33,064	0	-7,737	-3,050	
Net O/S -23,592 Today Prev Day	Net O/S -137,872 Today Prev Day	Net O/S 337,685 Today Prev Day	Net O/S 1,168,516 Today Prev Day	Net O/S 1,062 Today Prev Day	Net O/S 63,764 Today Prev Day	Net O/S 50,467 Today Prev Day	Net O/S -3,958,998 Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
216,661 ▲	20,880 ▲	-335,214 ▼	-43,859 ▼	-154,421 ▼	-7,484 ▼	233,421 ▲	29,166 ▲
156,816						205,830	
	13,976	61,760	17,472	55,107	4,523		
-59,845	-6,904	-273,454	-26,387	-99,314	-2,961	-27,591	-15,341
							-44,507
Net O/S 19,331 Today Prev Day	Net O/S 89,586 Today Prev Day	Net O/S -467,118 Today Prev Day	Net O/S 2,522,106 Today Prev Day	Net O/S 3,199 Today Prev Day	Net O/S -15,478 Today Prev Day	Net O/S 78,967 Today Prev Day	Net O/S 268,376 Today Prev Day

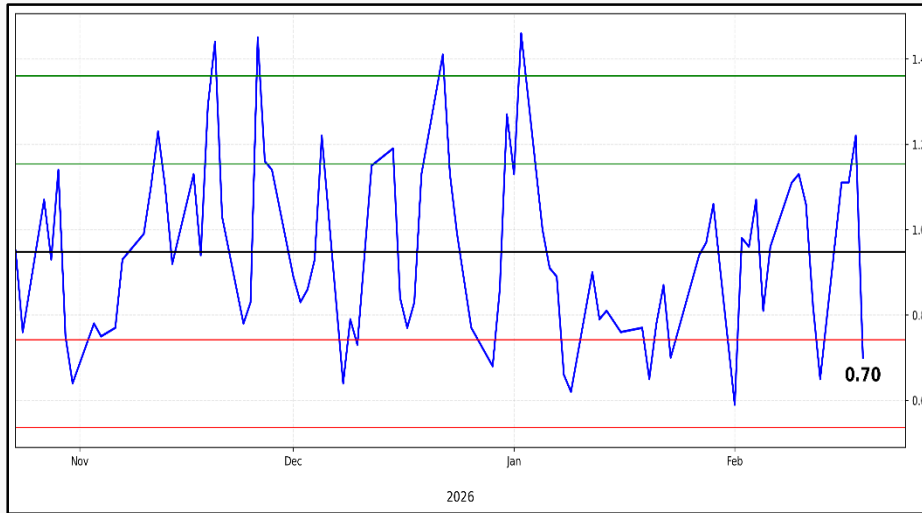
Daily Net Open Interest Change



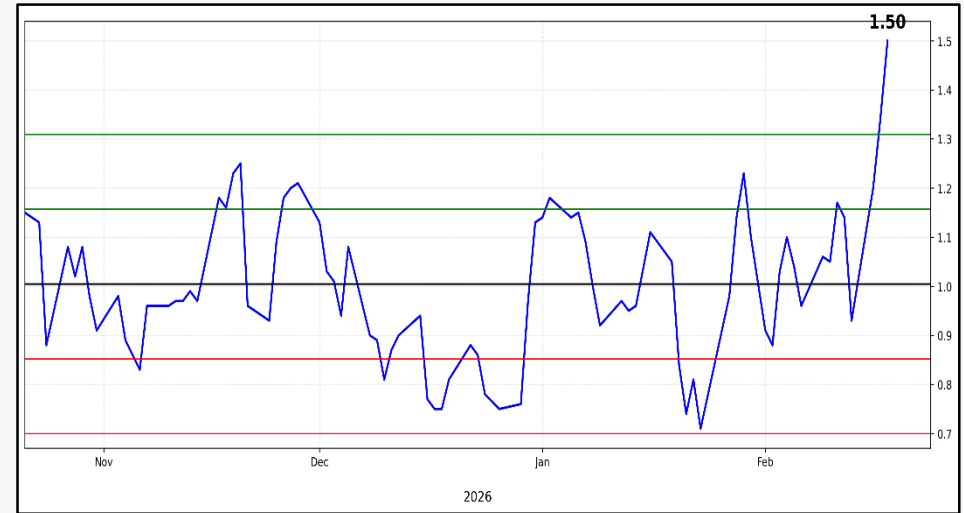
DII and FII Daily Cash Market Flows



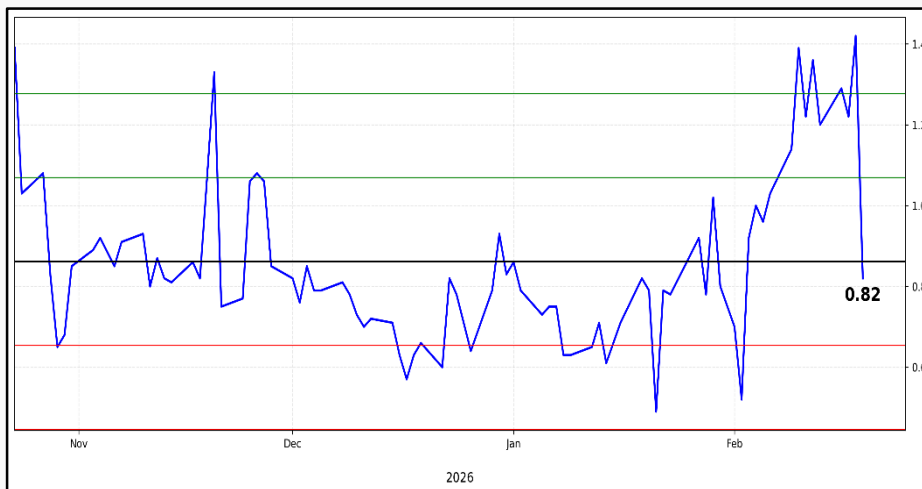
Nifty



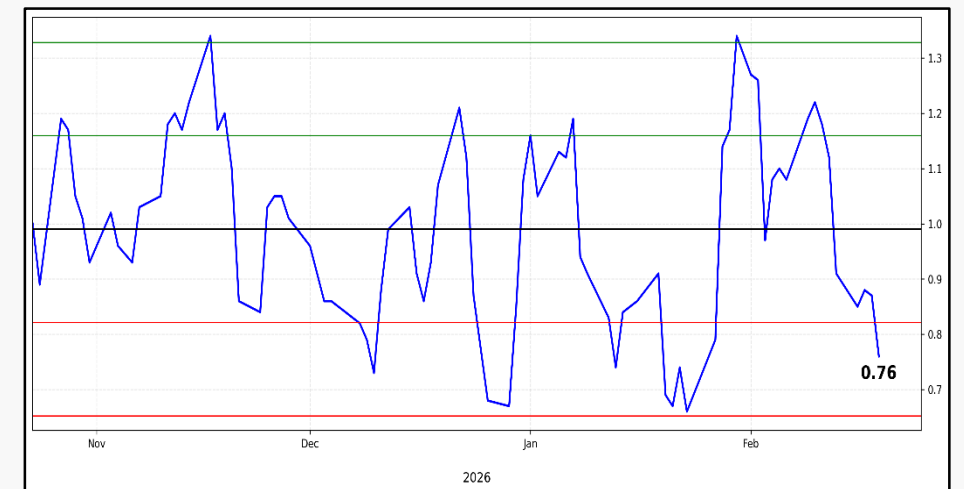
Bank Nifty



Fin Nifty



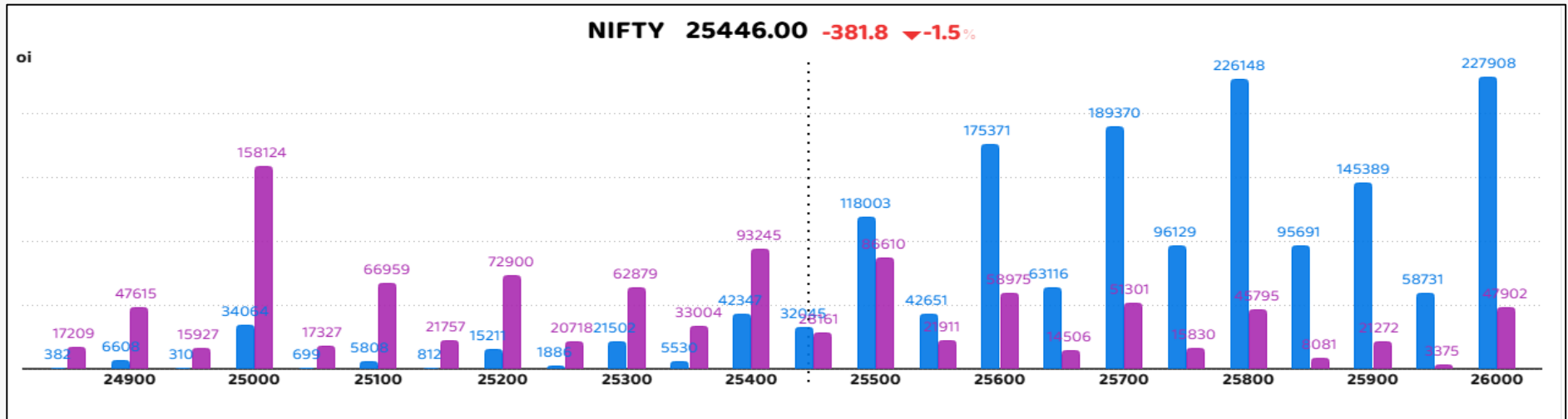
Midcap Select Nifty



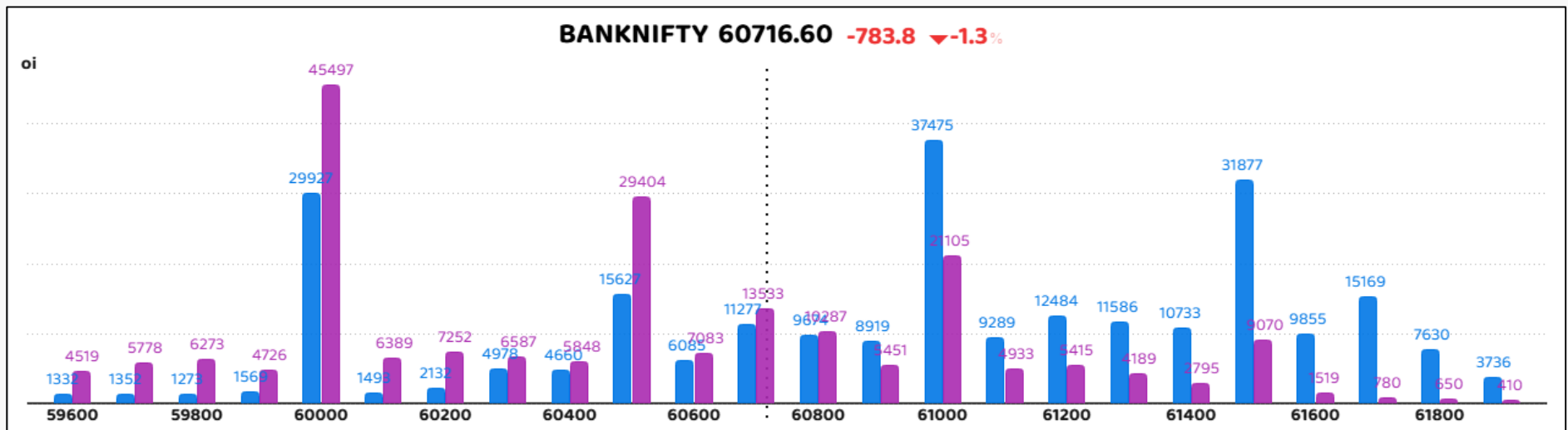
On the day immediately post expiration, PCR values will differ due to the way open interest data for the expired series is treated for the PCR calculation

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

Call  Put 

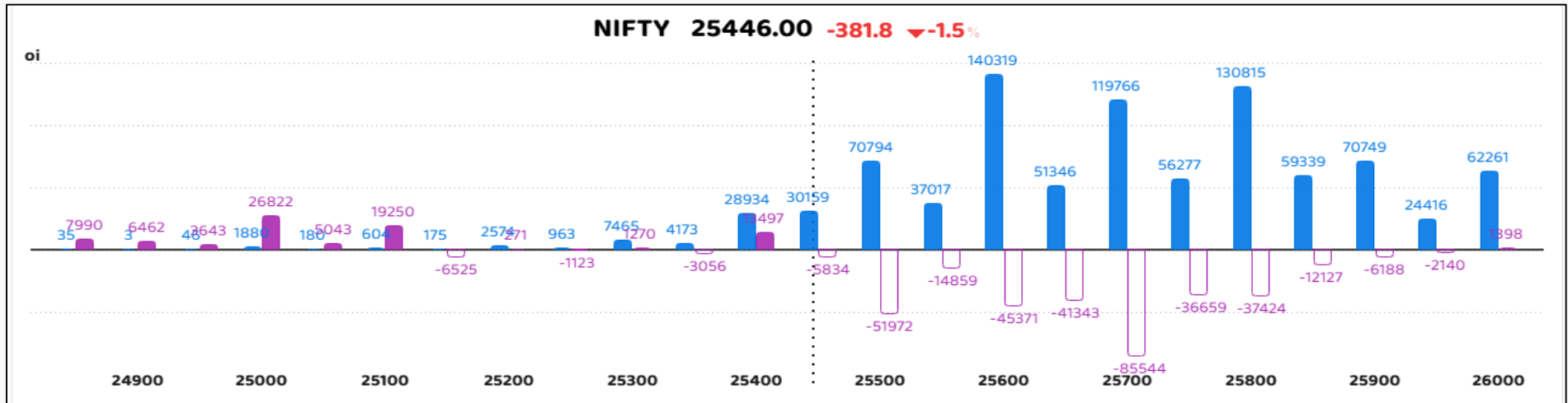


For Nifty, the 26,000 Call and 25,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 61,000 Call and the 60,000 Put saw the most amount of open interest.

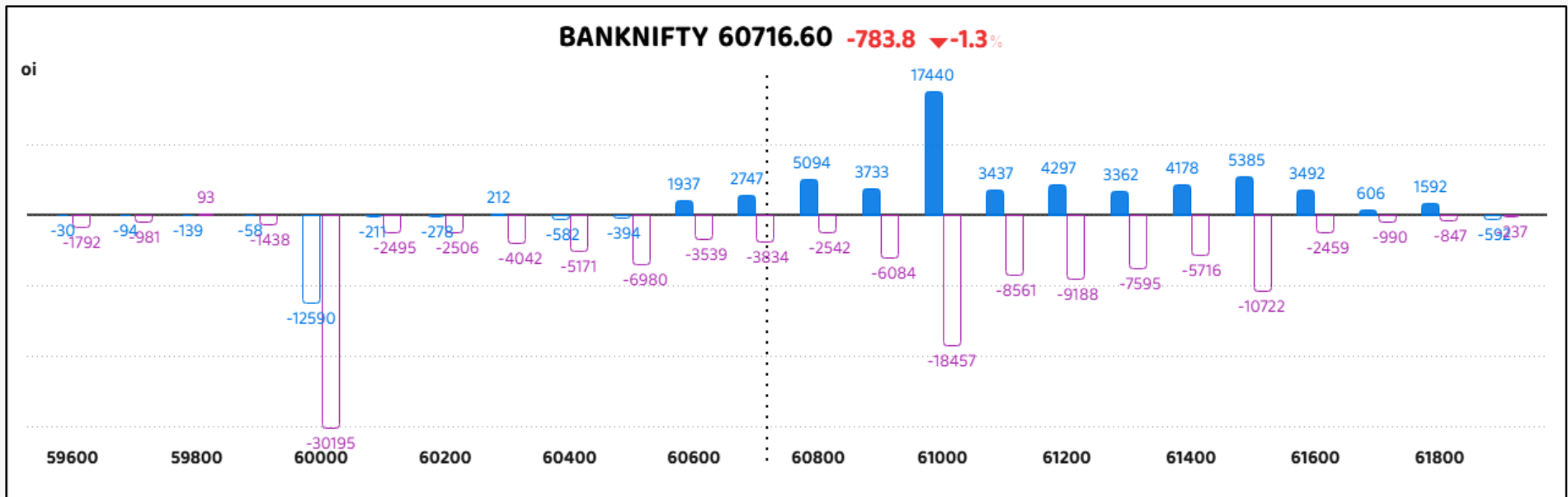


Open Interest Change (Nifty Current Week Expiry & BankNifty Monthly Expiry)

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,600 Call and the 25,700 Put



For the Bank Nifty, the biggest open interest changes were seen at the 61,000 Call & the 60,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
SYNGENE INTERNAT	438.2	1.2	35.8	38.7	15.7	87.2
STEEL AUTHORITY	155.8	-2.1	76.0	91.3	0.6	83.2
HINDUSTAN UNILEV	2,279.3	-1.9	19.1	25.3	0.8	74.9
LTIMINDTREE LTD	4,959.5	-1.9	33.3	43.3	6.8	72.7
HDFC BANK LTD	915.6	-1.0	20.1	28.0	1.5	70.5

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HDFC LIFE INSURA	733.2	0.5	18.2	68.4	16.6	3.0
NTPC LTD	363.2	-1.4	18.9	116.6	14.9	3.9
GAIL INDIA LTD	166.9	-0.3	22.2	91.4	19.4	4.0
ASTRAL LTD	1,621.0	-1.0	19.7	40.4	18.8	4.1
ADANI PORTS AND	1,513.3	-2.4	26.1	99.7	19.0	8.8

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
RAIL VIKAS NIGAM	306.9	-0.9	69.2	127.8	21.0	99.0
STEEL AUTHORITY	155.8	-2.1	76.0	91.3	0.6	98.7
INFOSYS LTD	1,370.5	-0.2	35.2	60.8	1.7	95.1
SYNGENE INTERNAT	438.2	1.2	35.8	38.7	15.7	94.3
HCL TECH LTD	1,450.4	-1.2	30.8	46.0	10.4	92.9

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MAX HEALTHCARE I	1,081.5	-0.4	22.6	68.8	22.4	0.5
PHOENIX MILLS	1,742.5	-1.6	20.8	64.3	15.0	0.9
TITAN CO LTD	4,198.2	-1.2	12.8	39.3	8.3	1.1
YES BANK LTD	21.0	-1.3	23.4	55.3	8.1	1.6
ASTRAL LTD	1,621.0	-1.0	19.7	40.4	18.8	1.7

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
BOSCHLTD	35,015.2	-1.9	14,300	2,993	4.8
OIL	476.7	5.1	1,14,779	25,371	4.5
SYNGENE	438.2	1.2	13,466	3,151	4.3
NBCC	95.5	-2.6	9,250	2,219	4.2
RVNL	306.8	-0.9	52,442	13,215	4.0

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
BAJAJHLDNG	11,187.4	-2.0	1,433	4,622	3.2
LODHA	1,066.9	-3.7	7,610	13,970	1.8
DALBHARAT	2,086.6	-2.0	4,560	7,278	1.6
INDIGO	4,815.2	-3.3	47,249	69,597	1.5
AMBER	7,705.5	-2.4	14,673	19,908	1.4

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
ABB	5,719.4	-2.8	15,111	12,505	100.0
ADANIENT	2,156.6	-2.5	29,380	29,254	100.0
ANGELONE	2,509.6	-3.2	14,197	13,732	100.0
DIXON	11,237.0	-2.4	45,870	44,828	100.0
CAMS	721.4	-2.1	4,166	4,048	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	5,719.4	-2.8	10,193	8,884	100.0
ADANIENSOL	1,007.2	-2.8	5,461	5,422	100.0
HDFCLIFE	733.2	0.5	6,515	6,428	100.0
HINDPETRO	434.4	-5.0	6,900	5,633	100.0
EXIDEIND	333.2	-2.5	6,457	6,321	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
ABB	5,719.4	-2.8	29,522	22,071	100.0
CIPLA	1,328.9	-1.5	26,396	24,739	100.0
BPCL	367.6	-3.5	15,868	14,753	100.0
COLPAL	2,167.2	-1.7	42,559	30,414	100.0
CHOLAFIN	1,675.8	-2.4	7,356	7,253	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
ABB	5,719.4	-2.8	18,487	10,281	100.0
ABCAPITAL	344.3	-1.5	6,556	6,458	100.0
HDFCAMC	2,732.2	-2.9	13,235	12,185	100.0
HEROMOTOCO	5,414.4	-3.2	31,771	23,032	100.0
CONCOR	506.2	-0.1	4,113	3,135	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	4,646.0	-1.7	9,331	6,018	1.6
PERSISTENT	5,266.2	-4.6	28,653	19,135	1.5
ANGELONE	2,509.6	-3.2	14,197	10,181	1.4
INOXWIND	96.6	-2.2	12,840	9,303	1.4
ABB	5,719.4	-2.8	15,111	11,204	1.3

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
ONGC	274.6	3.8	31,444	19,493	1.6
PERSISTENT	5,266.2	-4.6	16,206	10,322	1.6
360ONE	1,104.5	-2.0	3,475	2,569	1.4
TORNTPHARM	4,226.4	0.4	3,057	2,271	1.3
CUMMINSIND	4,646.0	-1.7	7,587	5,845	1.3

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
OIL	476.7	5.1	1,14,779	14,245	8.1
RBLBANK	332.6	2.1	49,140	7,036	7.0
UPL	765.0	2.3	38,089	7,175	5.3
SAMMAANCAP	151.4	1.9	560	125	4.5
AUBANK	1,017.0	-0.5	36,574	9,155	4.0

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SAMMAANCAP	151.4	1.9	352	53	6.7
HINDPETRO	434.4	-5.0	18,024	2,938	6.1
INDIGO	4,815.2	-3.3	69,597	12,234	5.7
RBLBANK	332.6	2.1	16,035	3,105	5.2
OIL	476.7	5.1	25,371	5,337	4.8

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	846660	6.6%	2157	2200	740673	2.0%	JIOFIN	270	6476600	4.4%	259	250	4422700	-3.3%
ADANIPTS	1600	1004625	5.7%	1513	1500	971375	-0.9%	JSWSTEEL	1400	796500	14.0%	1228	1200	1229175	-2.3%
APOLLOHOSP	7700	246250	1.4%	7593	7100	103750	-6.5%	KOTAKBANK	430	3954000	3.3%	416	410	4830000	-1.5%
ASIANPAINT	2500	661250	4.1%	2401	2100	480750	-12.5%	LT	4100	1718850	-4.2%	4281	4100	1037575	-4.2%
AXISBANK	1380	3547500	1.7%	1357	1350	1406250	-0.5%	M&M	3700	1230400	7.8%	3432	3500	371000	2.0%
BAJAJ-AUTO	10000	224700	2.8%	9729	9700	69225	-0.3%	MARUTI	15500	219550	4.0%	14903	14500	120450	-2.7%
BAJAJFINSV	2040	687500	0.3%	2033	1680	670500	-17.4%	MAXHEALTH	1120	326025	3.6%	1081	1000	615825	-7.5%
BAJFINANCE	1050	1899000	3.2%	1017	950	1692000	-6.6%	NESTLEIND	1350	596500	5.6%	1279	1240	175000	-3.0%
BEL	450	13255350	3.4%	435	420	3234750	-3.5%	NTPC	370	31761000	1.9%	363	350	4138500	-3.6%
BHARTIARTL	2040	2017325	2.6%	1989	1760	597075	-11.5%	ONGC	263.75	15860250	-4.0%	275	263.75	6097500	-4.0%
CIPLA	1400	895875	5.4%	1329	1300	412500	-2.2%	POWERGRID	300	12494400	1.8%	295	280	3718300	-5.0%
COALINDIA	460	4602150	10.5%	416	420	2736450	0.9%	RELIANCE	1400	6635500	-0.7%	1410	1400	4031500	-0.7%
DRREDDY	1280	2135000	-0.2%	1282	1280	566875	-0.2%	SBILIFE	2040	1223625	-0.1%	2043	2040	532500	-0.1%
EICHERMOT	8500	209000	7.6%	7897	7700	193200	-2.5%	SBIN	1220	3424500	1.2%	1206	1100	5062500	-8.8%
ETERNAL	300	13441775	10.4%	272	260	5630850	-4.3%	SHRIRAMFIN	1080	1339800	2.4%	1055	1000	871200	-5.2%
GRASIM	3200	289750	11.7%	2864	2800	268250	-2.2%	SUNPHARMA	1720	2416400	0.4%	1713	1700	1029700	-0.8%
HCLTECH	1600	2963450	10.3%	1450	1400	698600	-3.5%	TATACONSUM	1200	530750	3.4%	1161	1120	499950	-3.5%
HDFCBANK	950	7409600	3.8%	916	950	2245650	3.8%	TMPV	390	4404000	3.8%	376	360	1793600	-4.2%
HDFCLIFE	740	3228500	0.9%	733	650	908600	-11.3%	TATASTEEL	210	24068000	2.2%	205	200	7557000	-2.6%
HINDALCO	1000	1491700	10.4%	906	900	1048600	-0.6%	TCS	3000	2578800	12.0%	2678	2600	789950	-2.9%
HINDUNILVR	2400	942300	5.3%	2279	2300	672000	0.9%	TECHM	1660	1068600	12.2%	1479	1620	583800	9.5%
ICICIBANK	1410	7273000	1.5%	1389	1400	2632000	0.8%	TITAN	4300	886900	2.4%	4198	4000	308700	-4.7%
INDIGO	5000	423300	3.8%	4815	4700	417150	-2.4%	TRENT	4500	636900	10.6%	4068	3800	237800	-6.6%
INFY	1500	5668800	9.4%	1371	1300	1908000	-5.1%	ULTRACEMCO	13000	118950	2.5%	12688	11200	43850	-11.7%
ITC	330	17611200	1.2%	326	320	4619200	-1.8%	WIPRO	250	12144000	18.4%	211	205	4821000	-2.9%

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

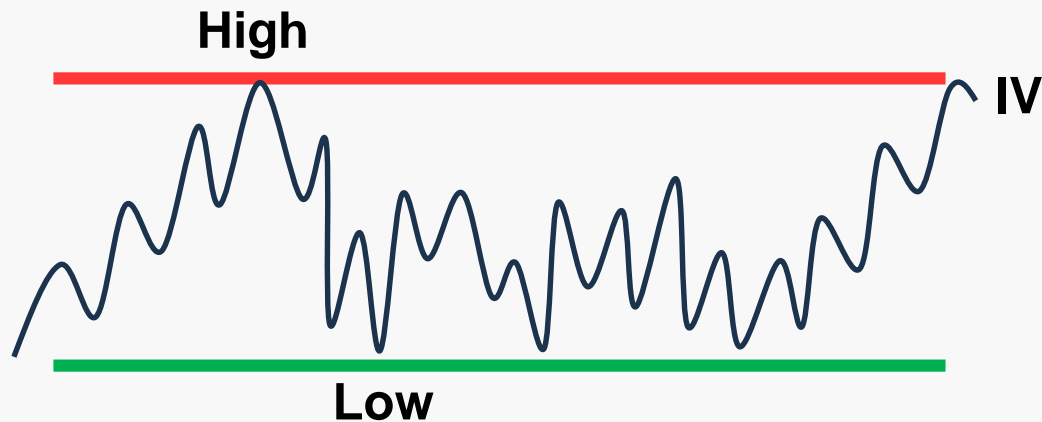
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

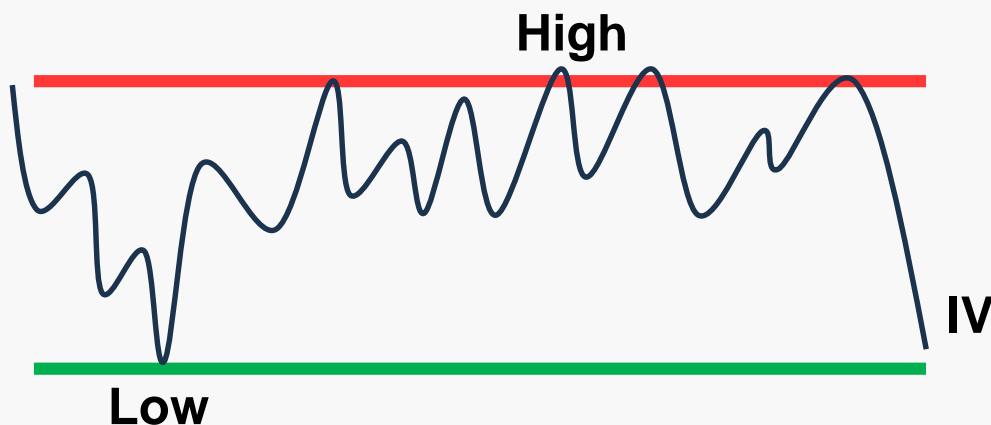
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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 (DII)s, 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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