



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	24,869	0.5% ▼
Open Interest (OI)	1,84,19,775	0.2% ▲
Change in OI (abs)	1,84,19,775	44,550 ▲
Premium / Discount (Abs)	15	34 ▼
<b>Inference</b>	<b>Short Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	55,781	0.6% ▼
Open interest (OI)	23,00,495	0.2% ▲
Change in OI (abs)	23,00,495	5,025 ▲
Premium / Discount (Abs)	67	101 ▼
<b>Inference</b>	<b>Short Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	14.4	0.44 ▼
Nifty ATM IV (%)	14.00	0.4 ▼
Bank Nifty ATM IV (%)	14.67	0.8 ▼
PCR (Nifty)	0.95	0.19 ▼
PCR (Bank Nifty)	0.74	0.06 ▼

The Long Ratio for FII Index Futures **jump** at 20.9 %, **up** from 20.2% in the **last session..**

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
<b>KAYNES</b>	4,27,800	37.3%	5659.5	0.9%
MCX	17,68,825	9.3%	7947	1.3%
IIFL	1,13,24,450	5.5%	487.8	0.5%
MAZDOCK	30,40,275	5.1%	3312.7	4.3%
BDL	22,16,175	2.9%	1908.4	0.8%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PPLPHARMA	95,85,000	17.0%	195.35	-2.2%
BIOCON	3,78,02,500	15.3%	352.9	-1.3%
HINDZINC	1,71,68,375	14.8%	486.5	-3.3%
JINDALSTEL	1,73,28,125	6.9%	893.55	-3.5%
RVNL	1,12,68,125	6.8%	400.75	-2.2%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
GODREJPROP	63,76,500	-7.0%	2455.4	0.5%
BSOFT	1,24,72,600	-5.4%	423.4	0.3%
INDHOTEL	2,28,59,000	-4.8%	755.65	0.0%
ASIANPAINT	1,47,37,400	-3.4%	2270.7	1.0%
MUTHOOTFIN	40,50,750	-2.5%	2642.6	0.4%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
<b>MANAPPURAM</b>	3,80,55,000	-5.0%	270.99	-2.5%
DRREDDY	1,12,96,875	-4.3%	1322.2	-1.9%
HUDCO	4,19,48,300	-2.9%	225.57	-2.1%
INDIANB	81,56,400	-2.6%	633.05	-0.1%
PRESTIGE	40,41,825	-2.5%	1690.8	-0.6%

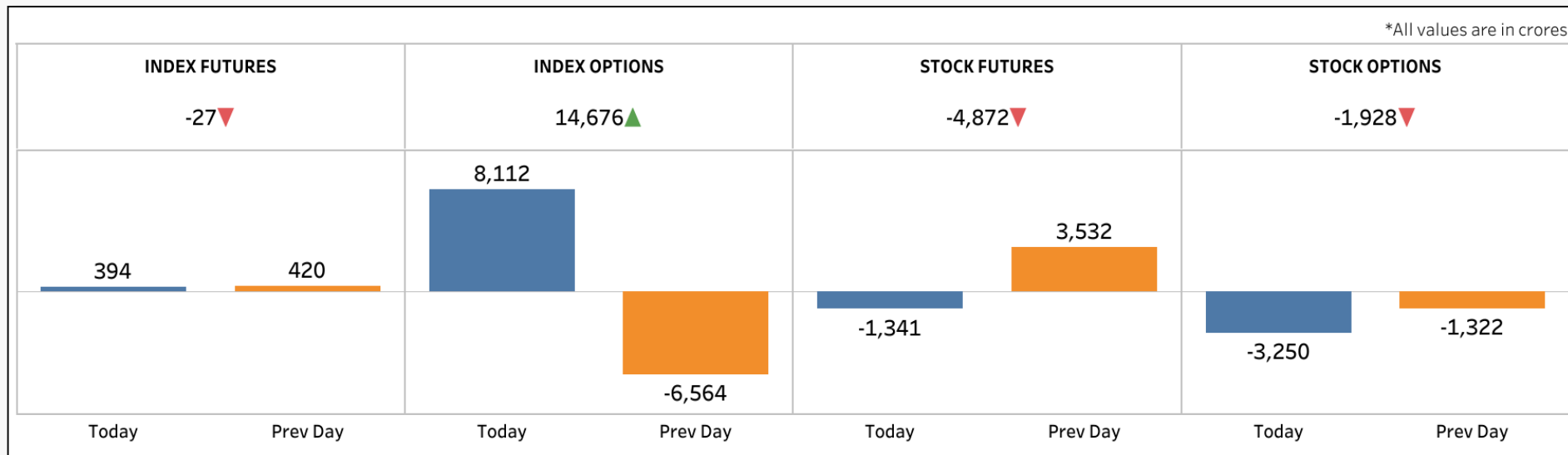
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Trends by Participant

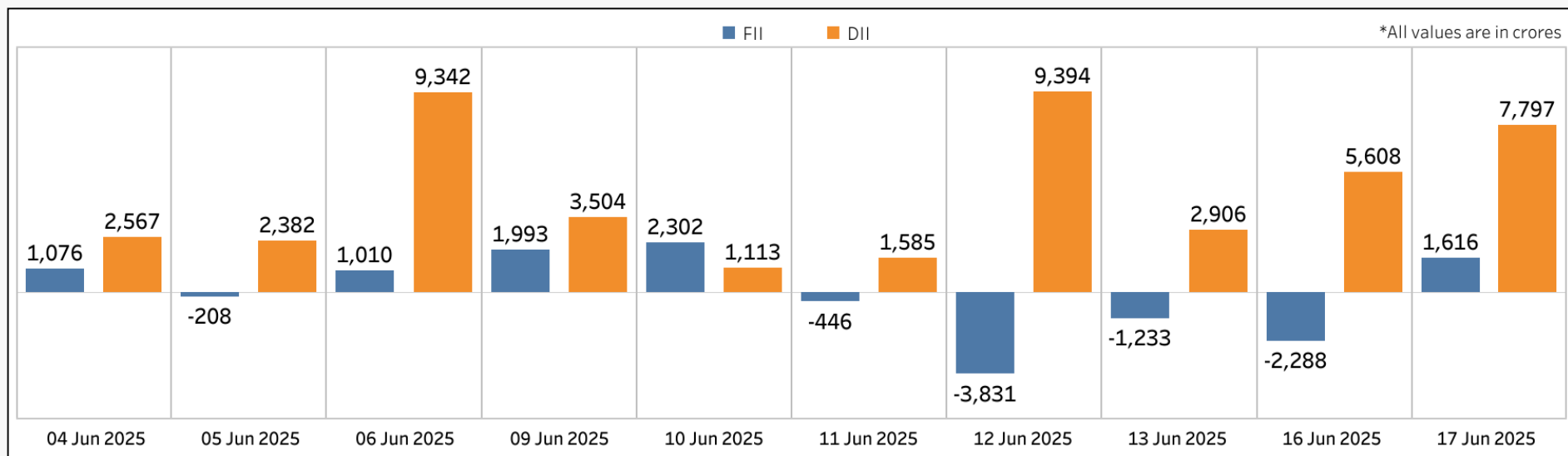
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
15,680 ▲	-206 ▼	54,495 ▲	-67,261 ▼	0	6,081 ▲	329 ▲	56,304 ▲
13,820	2,260	26,560	41,152	0	0	341	27,298
-1,860	2,466	-27,935	-26,109	-357	-6,438	12	-29,006
Net O/S 177,016 Today Prev Day	Net O/S -99,483 Today Prev Day	Net O/S 209,593 Today Prev Day	Net O/S 1,429,716 Today Prev Day	Net O/S 70 Today Prev Day	Net O/S 46,270 Today Prev Day	Net O/S 15,887 Today Prev Day	Net O/S -3,979,623 Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
319,920 ▲	15,586 ▲	-118,503 ▼	12,551 ▲	-335,601 ▼	-21,461 ▼	63,681 ▲	-1,594 ▼
147,779	4,558	65,918	8,451	174,002	15,000	25,685	
-172,141	-11,028	-52,585	-4,100	-161,599	-6,461	-37,996	-9,640 -8,046
Net O/S -314,808 Today Prev Day	Net O/S 70,087 Today Prev Day	Net O/S -260,561 Today Prev Day	Net O/S 2,087,331 Today Prev Day	Net O/S 137,723 Today Prev Day	Net O/S -16,874 Today Prev Day	Net O/S 35,081 Today Prev Day	Net O/S 462,576 Today Prev Day

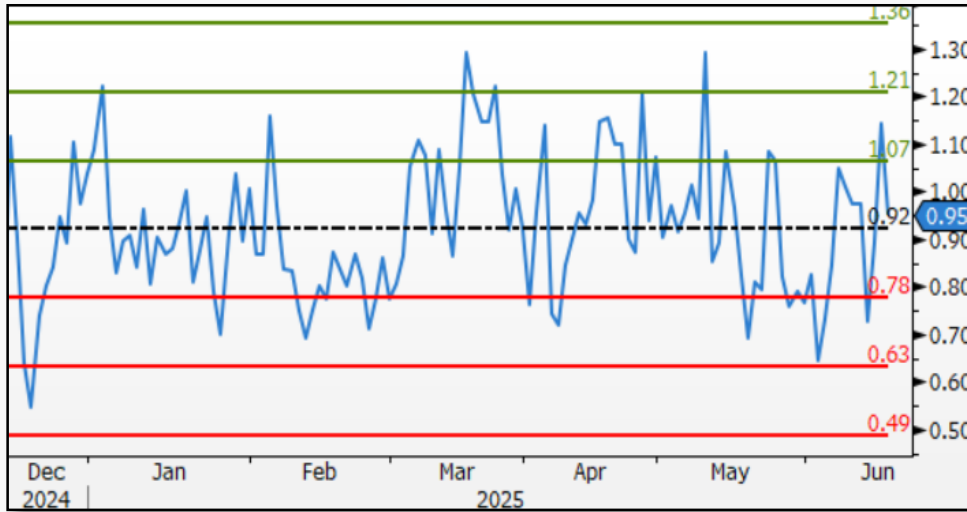
## Daily Net Open Interest Change



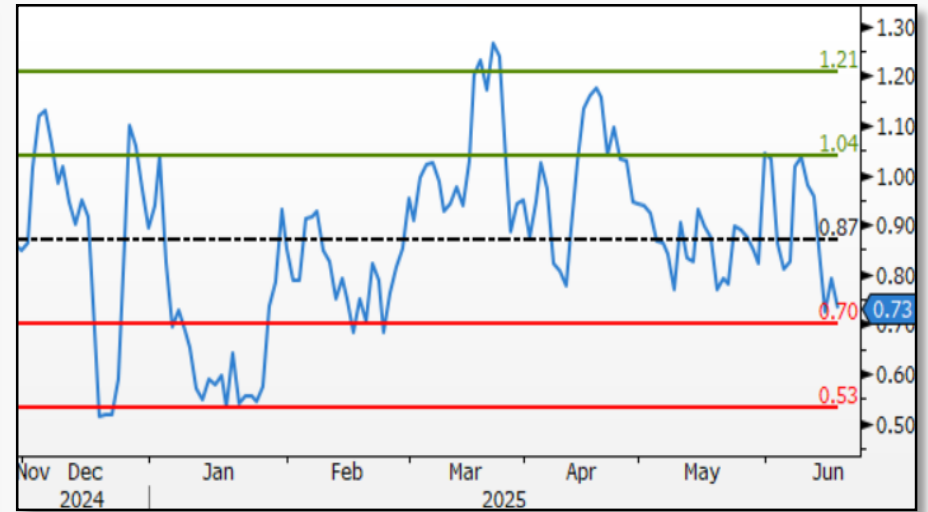
## DII and FII Daily Cash Market Flows



**Nifty**



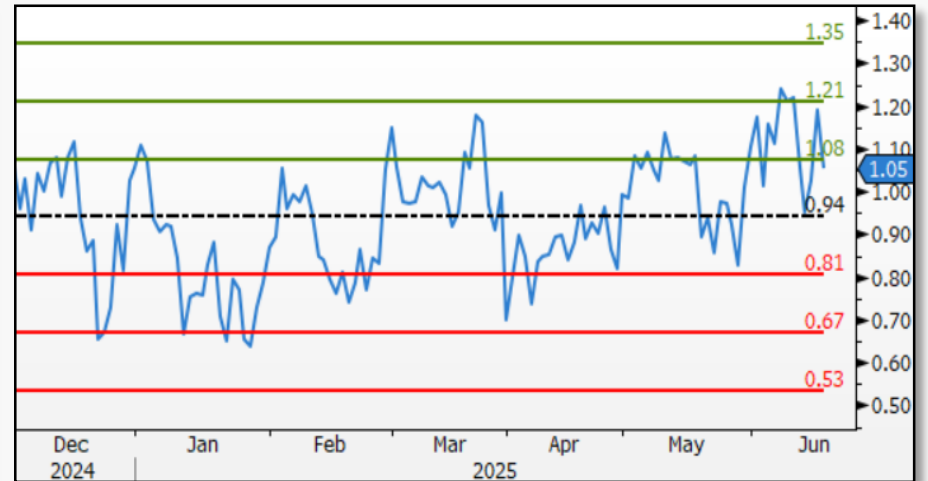
**Bank Nifty**



**Fin Nifty**

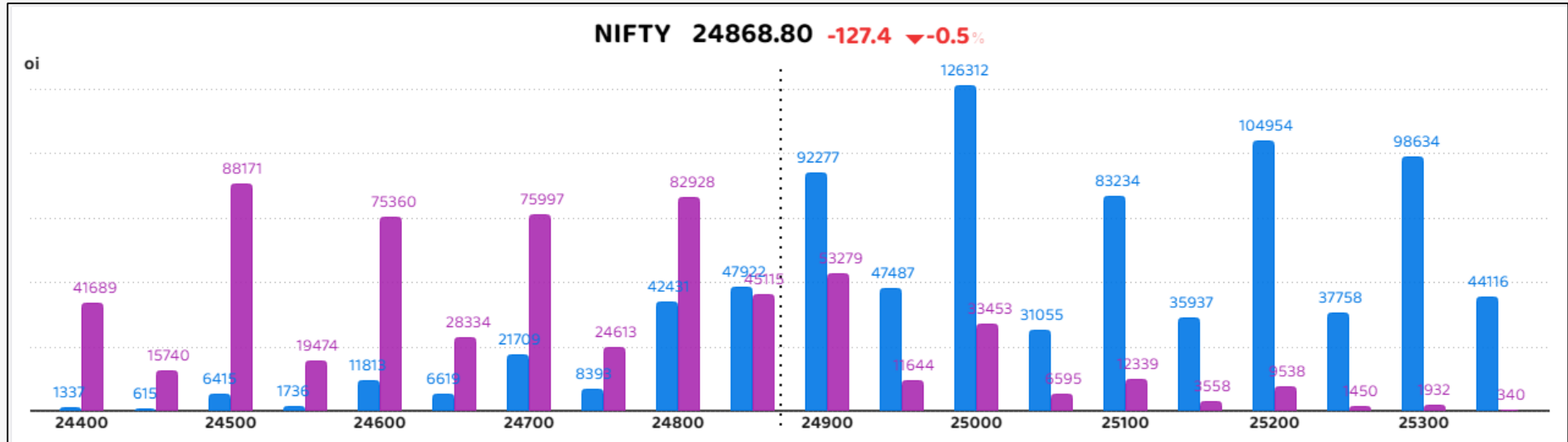


**Midcap Select Nifty**



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

Call  Put 



For the Nifty, the 25,000 Call and the 24,500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 56,000 Call and the 56,000 Put saw the most amount of open interest.

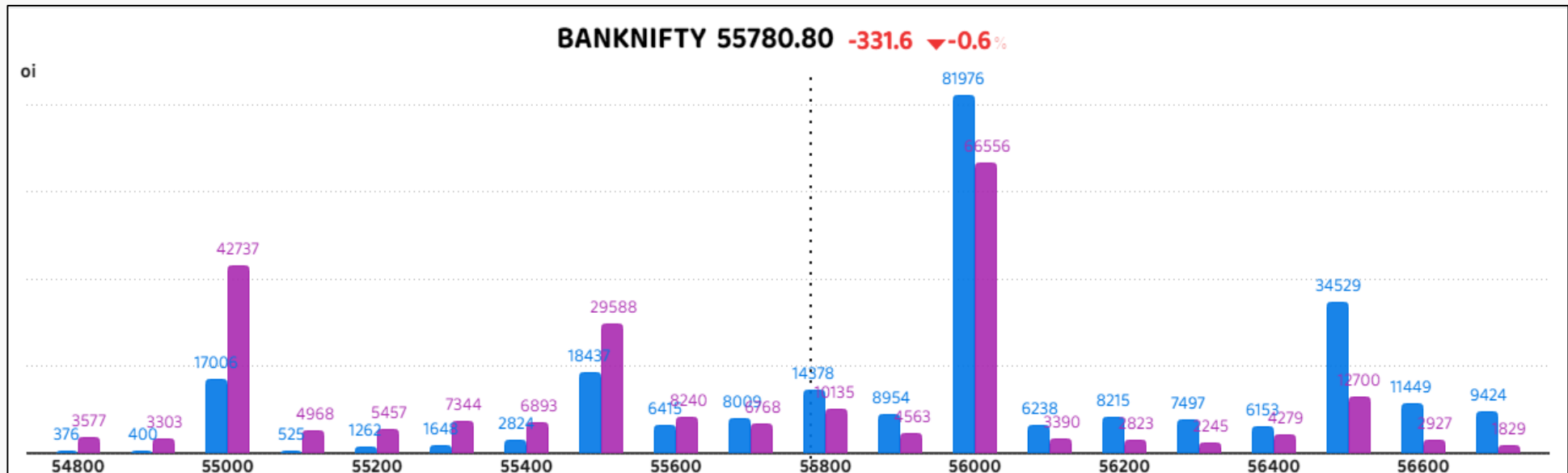
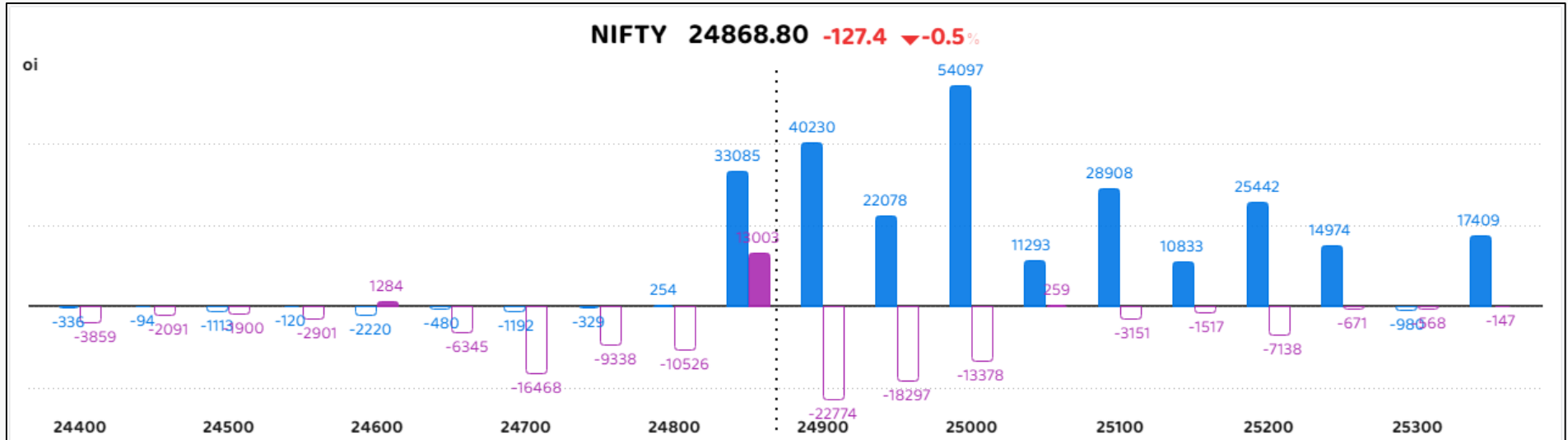


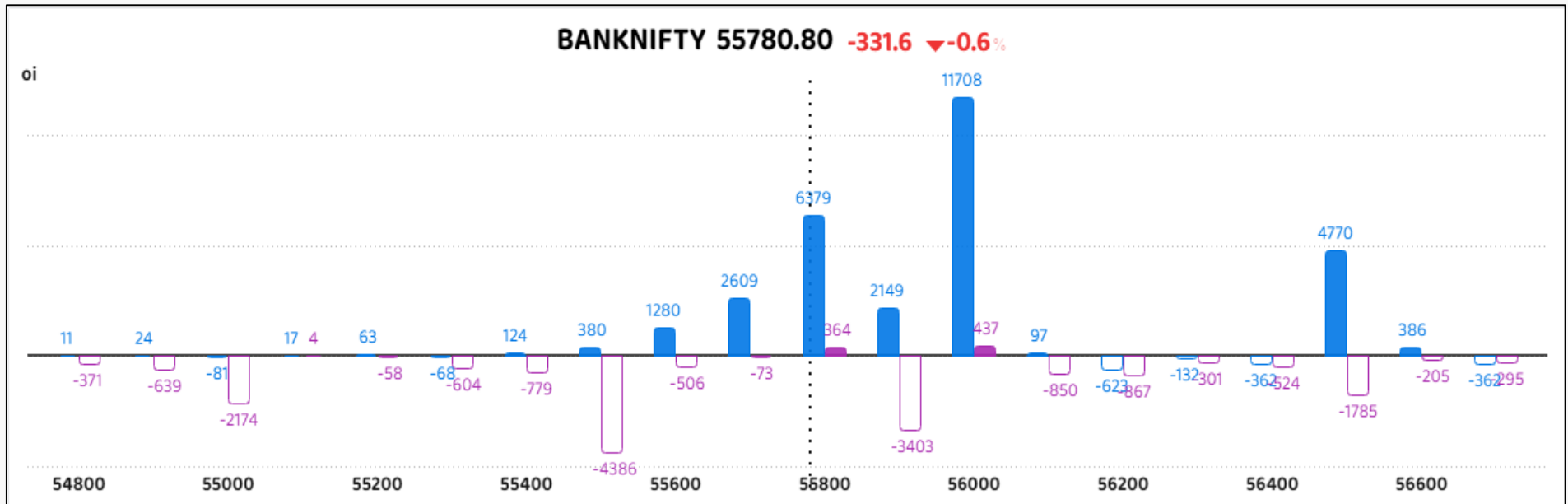
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

## 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 24,900 Put



For the Bank Nifty, the biggest open interest changes were seen at the 56,000 Call & the 55,500 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
PIRAMAL PHARMA	195.26	-2.0	39.1	39.1	35.8	100.0
MANAPPURAM FINANCE	269.92	-3.2	63.6	64.2	2.7	99.0
MANKIND PHARMA	2353.2	-0.7	32.4	33.2	28.6	83.2
BLUE STAR LTD	1669.9	-0.3	35.2	37.9	29.2	69.5
ASTRAL LTD	1564	0.7	27.4	38.4	2.9	68.9

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
BHARAT DYNAMICS	1903.4	0.8	39.0	46.7	39.0	0.0
TATA CHEMICALS	935.2	-0.1	23.4	41.0	23.4	0.0
UNO MINDA LTD	1049.5	-0.6	32.4	42.4	32.3	1.2
BANK OF BARODA	238.04	-1.1	24.3	66.9	23.5	1.9
AVENUE SUPERMART	4059.1	-0.7	26.6	62.3	25.7	2.6

## Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
PIRAMAL PHARMA	195.26	-2.0	39.1	39.1	35.8	100.0
MANAPPURAM FINANCE	269.92	-3.2	63.6	64.2	2.7	99.7
DALMIA BHARAT LTD	2062	-1.6	31.9	41.8	17.5	87.2
RBL BANK LTD	218.65	0.7	47.7	76.5	13.3	86.7
MANKIND PHARMA	2353.2	-0.7	32.4	33.2	28.6	86.5

## Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
BHARAT DYNAMICS	1903.4	0.8	39.0	46.7	39.0	0.0
TATA CHEMICALS	935.2	-0.1	23.4	41.0	23.4	0.0
UPL LTD	646.1	0.4	21.6	42.7	2.9	0.8
DABUR INDIA LTD	472.05	0.1	18.2	37.5	11.6	1.1
COAL INDIA LTD	391.3	-0.8	20.8	38.8	4.3	1.3

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
PNB HOUSING FINANCE	1061.2	-0.2	5696	1156	4.9
KAYNES TECHNOLOGIES	5644	0.8	9311	1999	4.7
AARTI INDUS LTD	455.6	-1.6	10942	2350	4.7
RAIL VIKAS NIGAM	400.65	-2.2	12422	2728	4.6
CG POWER	694.1	1.7	11880	2725	4.4

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
GLENMARK PHARMA	1653.2	-1.8	12958	25083	1.9
NCC LTD	225.77	-1.5	2660	4223	1.6
ZYDUS LIFESCIENCES	957.65	-1.7	6843	10552	1.5
DR REDDY'S LABS	1318.8	-2.1	26490	40652	1.5
FORTIS HEALTHCARE	761.55	-0.4	2676	4086	1.5

## Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
HINDUSTAN ZINC	486.35	-5.2	21009	21009	100.0
MAZAGON DOCK	3305.9	4.4	27806	27806	100.0
MANKIND PHARMA	2353.2	-0.7	2579	2579	100.0
JSW ENERGY LTD	503.35	-1.9	15105	15105	100.0
RAIL VIKAS NIGAM	400.65	-2.2	13524	13524	100.0

## Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
MAZAGON DOCK	3305.9	4.4	9093	9093	100.0
MANKIND PHARMA	2353.2	-0.7	1414	1414	100.0
MUTHOOT FINANCE	2645.7	0.5	16218	16218	100.0
RAIL VIKAS NIGAM	400.65	-2.2	4318	4318	100.0
OIL INDIA LTD	478.2	-0.6	5967	5967	100.0

### Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
MAZAGON DOCK	3305.9	4.4	170449	170449	100.0
SUPREME INDS LTD	4644.4	1.9	48987	48987	100.0
KAYNES TECHNOLOGIES	5644	0.8	9311	9311	100.0
ADITYA BIRLA CAPITAL	255.11	2.6	33703	43617	77.3
HINDUSTAN ZINC	486.35	-5.2	39354	52026	75.6

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
HINDUSTAN ZINC	486.35	-5.2	24760	24760	100.0
MAZAGON DOCK	3305.9	4.4	47663	47663	100.0

### Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
HINDUSTAN ZINC	486.35	-5.2	21009	8405	2.5
UNITED SPIRITS	1474.8	-0.7	29319	11970	2.4
SONA BLW PRECISION	479.95	-4.0	9251	4006	2.3
OIL INDIA LTD	478.2	-0.6	10730	4730	2.3
SUPREME INDS LTD	4644.4	1.9	5245	2500	2.1

### Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
HINDUSTAN ZINC	486.35	-5.2	8808	3902	2.3
OIL INDIA LTD	478.2	-0.6	5967	2698	2.2
UNITED SPIRITS	1474.8	-0.7	12983	6115	2.1
GLENMARK PHARMA	1653.2	-1.8	10371	5617	1.8
BIOCON LTD	352.65	-1.3	6802	3959	1.7

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
MAZAGON DOCK	3305.9	4.4	170449	24280	7.0
SUPREME INDS LTD	4644.4	1.9	48987	10256	4.8
BIOCON LTD	352.65	-1.3	60817	13144	4.6
KAYNES TECHNOLOGIES	5644	0.8	9311	2074	4.5
MAHANAGAR GAS LTD	1433.5	3.2	35531	10867	3.3

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
MAZAGON DOCK	3305.9	4.4	47663	7462	6.4
AUROBINDO PHARMA	1109.7	-3.1	40531	6609	6.1
LUPIN LTD	1944	-3.3	26891	5441	4.9
BIOCON LTD	352.65	-1.3	23761	5046	4.7
DR REDDY'S LABS	1318.8	-2.1	40652	10205	4.0

## 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	2700	1697700	8.5%	2489	2700	1534800	8.5%	ITC	440	12112000	5.4%	417	420	5214400	0.6%
ADANIPTS	1500	1866800	7.7%	1392	1400	1212400	0.6%	JIOFIN	300	10300950	3.5%	290	290	4542450	0.1%
APOLLOHOSP	7200	290750	2.8%	7007	6900	151000	-1.5%	JSWSTEEL	1020	1512000	2.0%	1000	980	492075	-2.0%
ASIANPAINT	2260	1162600	-0.2%	2265	2200	1323400	-2.9%	KOTAKBANK	2160	997200	1.1%	2137	2000	569200	-6.4%
AXISBANK	1250	4728750	2.9%	1215	1200	1320625	-1.2%	LT	3700	1292400	2.1%	3622	3600	432150	-0.6%
BAJAJ-AUTO	9000	628275	6.0%	8495	8500	144075	0.1%	M&M	3100	1324925	3.1%	3007	3000	828800	-0.2%
BAJAJFINSV	2100	1941500	4.8%	2003	2000	538500	-0.2%	MARUTI	12500	316950	-0.8%	12595	12500	115000	-0.8%
BAJFINANCE	1000	11081250	8.3%	923	900	4611250	-2.5%	NESTLEIND	2500	262800	5.8%	2362	2200	171400	-6.9%
BEL	400	12830700	-0.4%	402	380	7042350	-5.4%	NTPC	340	10752000	1.4%	335	340	3469500	1.4%
BHARTIARTL	2000	4078825	7.8%	1855	1860	1399825	0.3%	ONGC	255	19190325	1.1%	252	250	4073300	-0.9%
CIPLA	1600	1157325	6.4%	1504	1320	547300	-12.2%	POWERGRID	300	9901800	4.0%	289	270	3276000	-6.4%
COALINDIA	400	6112050	2.2%	391	400	3469200	2.2%	RELIANCE	1500	7172000	4.8%	1431	1400	2757500	-2.2%
DRREDDY	1300	1196250	-1.4%	1319	1300	833750	-1.4%	SBILIFE	1860	1131750	3.3%	1800	1800	386625	0.0%
EICHERMOT	6000	276150	12.3%	5341	5000	123725	-6.4%	SBIN	820	13428000	3.5%	792	820	5524500	3.5%
ETERNAL	270	9676000	9.2%	247	240	8888000	-2.9%	SHRIRAMFIN	700	2093250	5.3%	665	660	855750	-0.8%
GRASIM	2700	324500	1.1%	2671	2600	250750	-2.7%	SUNPHARMA	1700	2604700	3.0%	1650	1600	1033900	-3.0%
HCLTECH	1740	1424850	0.6%	1730	1700	549850	-1.7%	TATACONSUM	1200	1083912	12.0%	1072	1000	222072	-6.7%
HDFCBANK	2000	6778200	3.6%	1930	1940	2576200	0.5%	TATAMOTORS	720	9089850	6.7%	675	650	2866050	-3.7%
HDFCLIFE	800	3785100	3.4%	774	730	783200	-5.7%	TATASTEEL	161.4	18562500	5.8%	153	146.4	6935500	-4.1%
HEROMOTOCO	4500	647550	3.0%	4371	4200	223200	-3.9%	TCS	3500	1441650	-0.4%	3515	3500	842800	-0.4%
HINDALCO	700	4961600	9.1%	642	600	1055600	-6.5%	TECHM	1700	788400	-1.1%	1719	1600	921600	-6.9%
HINDUNILVR	2400	3100500	3.1%	2329	2300	888300	-1.2%	TITAN	3600	534100	5.7%	3406	3400	203525	-0.2%
ICICIBANK	1450	4509400	1.9%	1423	1450	2091600	1.9%	TRENT	6000	581300	6.6%	5627	5500	417200	-2.2%
INDUSINDBK	820	4549000	1.3%	809	800	1711000	-1.1%	ULTRACEMCO	12000	211250	5.4%	11383	9800	117500	-13.9%
INFY	1640	2396800	0.0%	1640	1600	1694800	-2.4%	WIPRO	270	7419000	2.7%	263	250	4335000	-4.9%

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

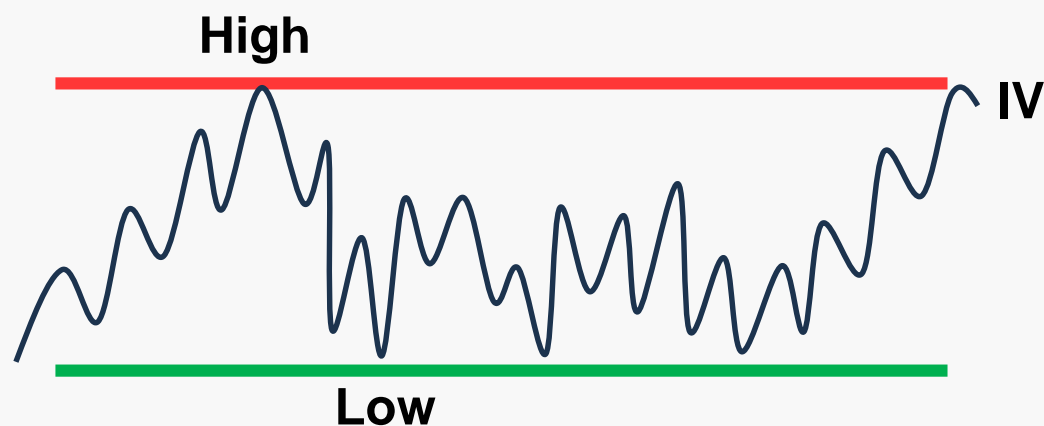
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

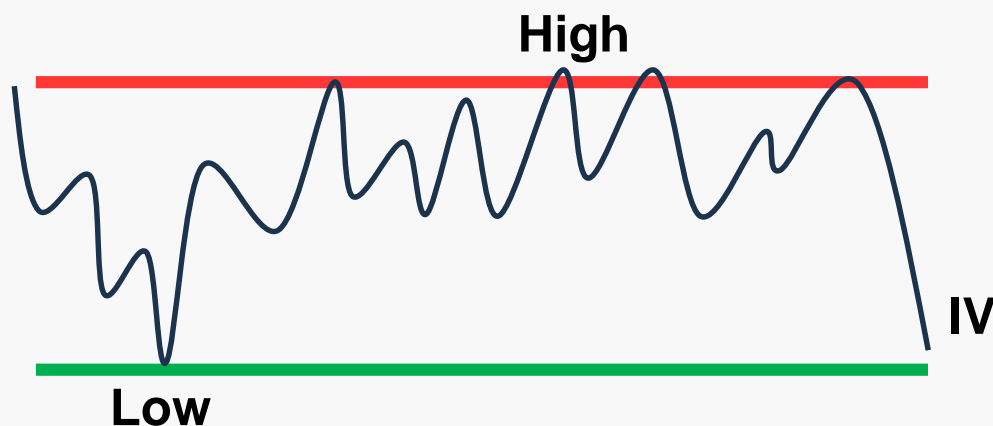
*\*ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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 (DIIIs), 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

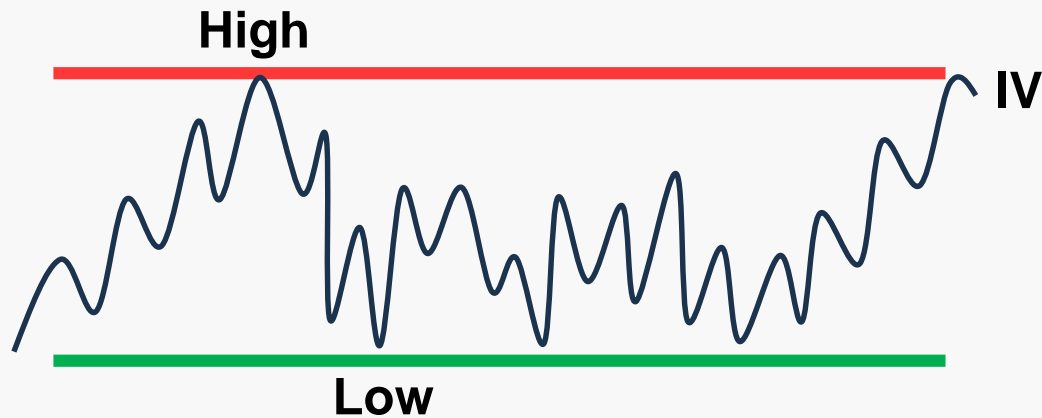


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

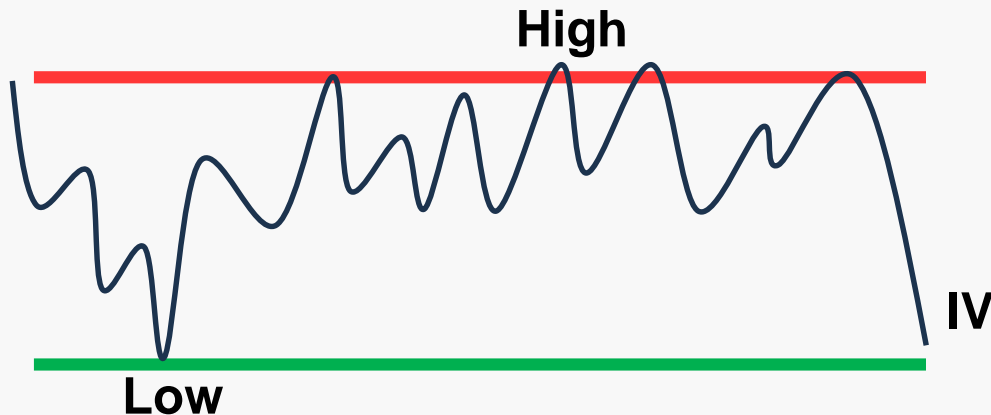


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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