



# Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	24,649	0.4% ▼
Open Interest (OI)	1,28,07,750	0.4% ▲
Change in OI (abs)	1,28,07,750	48,175 ▲
Premium / Discount (Abs)	100	7 ▲
<b>Inference</b>	<b>Short Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	53,438	0.2% ▼
Open interest (OI)	27,04,830	3.6% ▼
Change in OI (abs)	27,04,830	1,00,860 ▼
Premium / Discount (Abs)	221	54 ▲
<b>Inference</b>	<b>Long Unwinding</b>	

## Volatility Insights

	Value	Change
India VIX Index	13.19	0.1 ▼
Nifty ATM IV (%)	12.46	0.7 ▲
Bank Nifty ATM IV (%)	14.78	0.1 ▼
PCR (Nifty)	0.76	0.11 ▼
PCR (Bank Nifty)	0.90	0.05 ▼

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

\*On expiration days, the premium/discount will be the difference between the new front-month contract and the cash market level on the day

## Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
DELHIVERY	1,05,13,350	35.6%	378.45	0.8%
MAXHEALTH	28,12,425	28.2%	1167.95	3.0%
ATGL	24,96,275	23.2%	724.4	0.5%
ADANIENSOL	57,75,625	13.6%	818.5	3.0%
ANGELONE	23,22,800	6.8%	3444.85	0.9%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
NATIONALUM	7,66,80,000	39.1%	231.86	-7.2%
IRFC	3,75,65,925	23.1%	162.2	-1.8%
KPITTECH	16,14,800	14.0%	1546.25	-0.6%
KEI	2,93,700	9.3%	4540.1	-1.0%
IRB	3,41,83,750	7.3%	58.38	-1.3%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
LODHA	14,49,900	-9.5%	1435.6	1.7%
MANAPPURAM	5,79,39,000	-7.3%	178.92	0.6%
GLENMARK	38,54,575	-5.5%	1537.2	0.3%
LTTS	7,13,200	-5.0%	5441.5	1.2%
CYIENT	6,04,200	-4.8%	2090.1	0.1%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
RAMCOCEM	76,56,800	-5.7%	1002.25	-2.0%
BAJAJFINSV	1,41,14,500	-3.3%	1682.7	-0.4%
NHPC	4,20,09,600	-3.1%	85.04	-1.6%
JKCEMENT	9,22,250	-2.9%	4663.55	-1.0%
DALBHARAT	34,61,150	-2.7%	1940.75	-1.7%

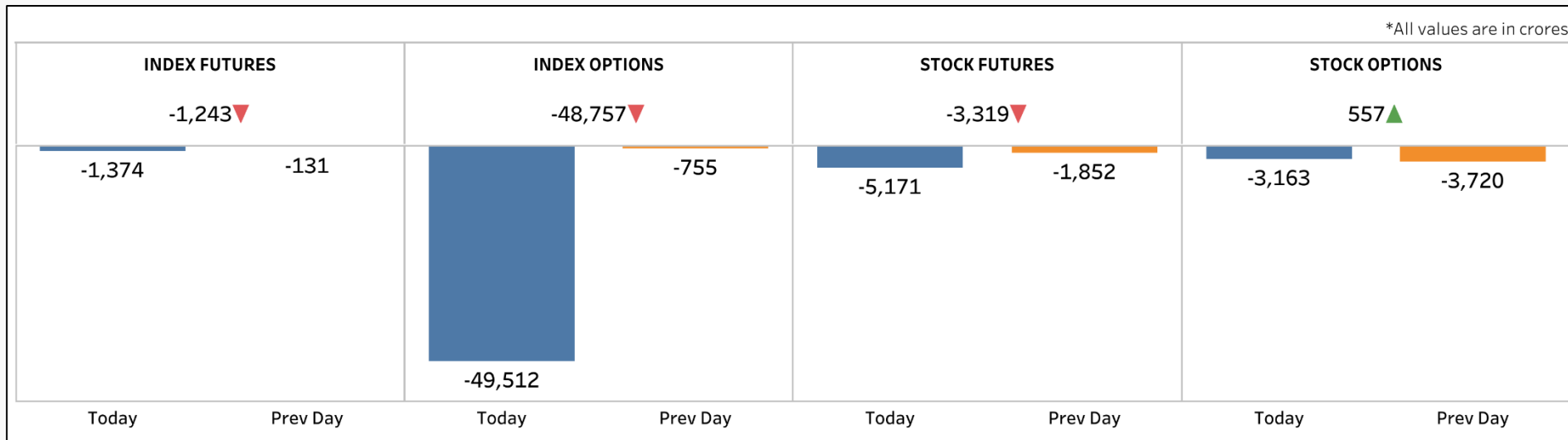
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

## Open Interest Data by Participant

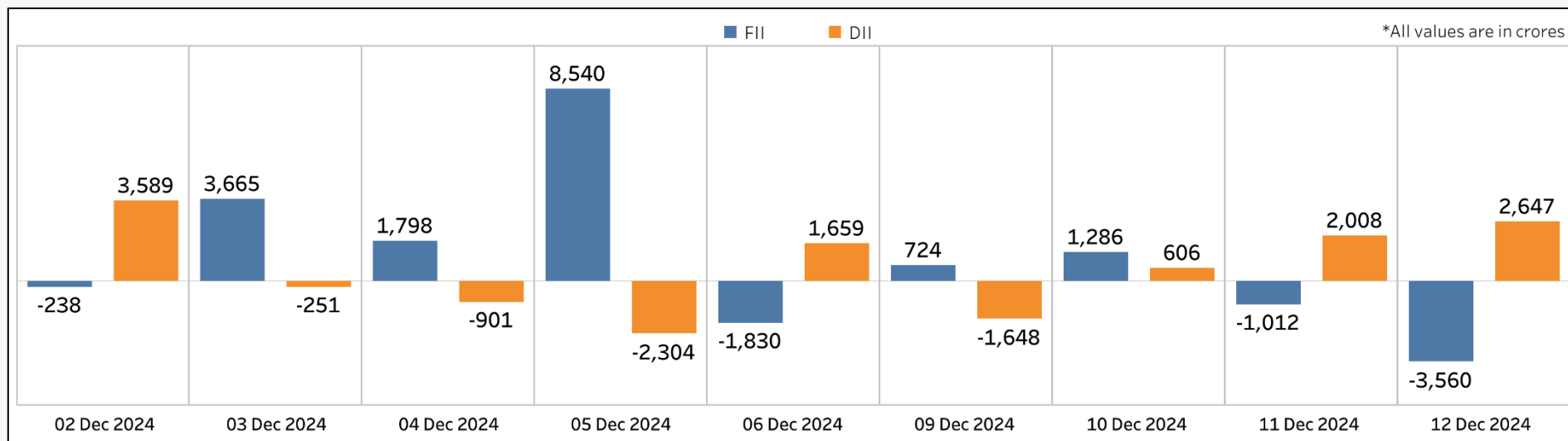
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-21,375 ▼	-19,297 ▼	79,560 ▲	-53,551 ▼	0	458 ▲	-1,652 ▼	-9,059 ▼
4,213	25,588	47,412		0	-212	-1,652	-2,664
	-1,016			0	-670	0	
	-20,313	-32,148	-79,871				-11,723
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
115,360	-68,081	386,302	923,194	0	-8,219	261,254	-3,740,838
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-922,665 ▼	10,503 ▲	-988,641 ▼	40,922 ▲	944,040 ▲	8,336 ▲	910,733 ▲	21,688 ▲
320,948		388,874		597,504		554,007	
11,370	867		59,716		9,155	819	
			18,794				31,878
							10,190
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-77,742	135,545	-663,137	2,364,379	-37,618	-59,245	15,581	453,265
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day

## Daily Net Open Interest Change

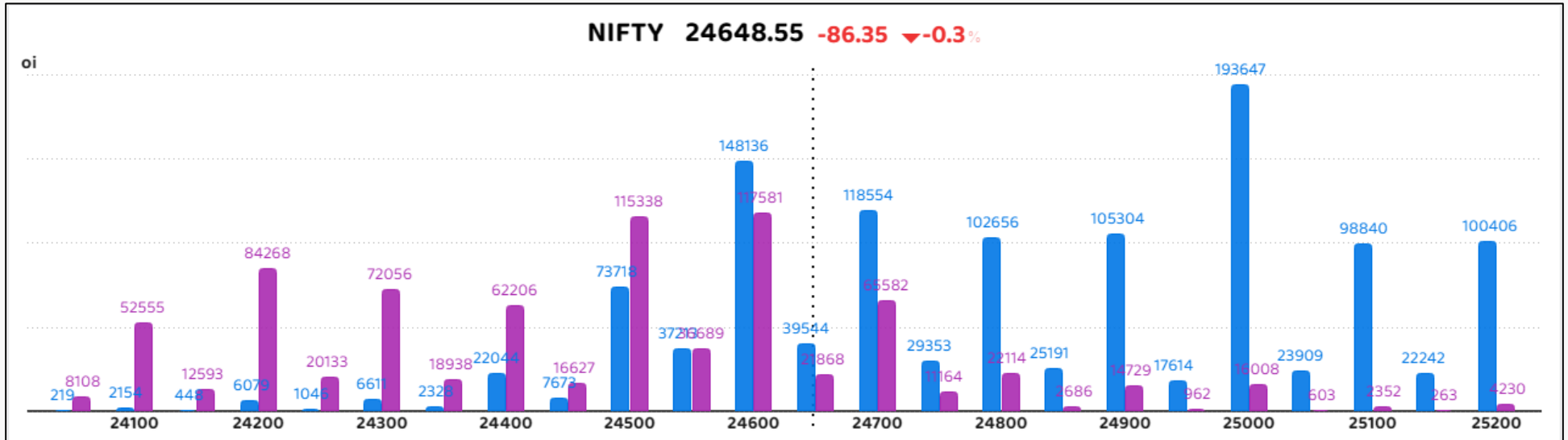


## DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 25,000 call and the 24,600 put had the highest call and put concentration (contracts). For the Bank Nifty, the 54,000 call and the 52,500 put saw the most amount of open interest.

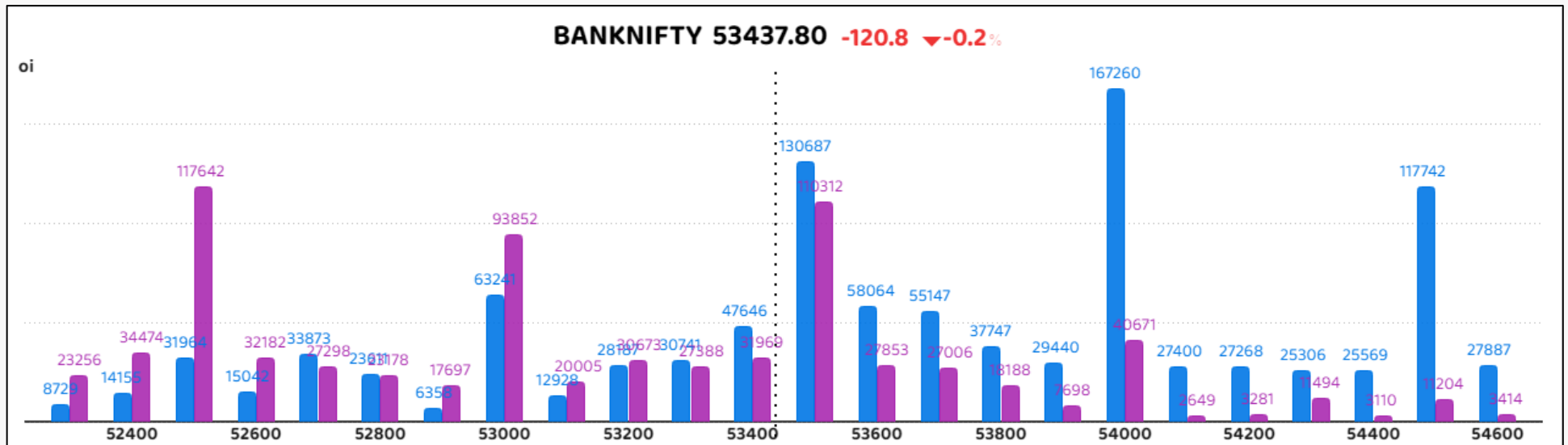
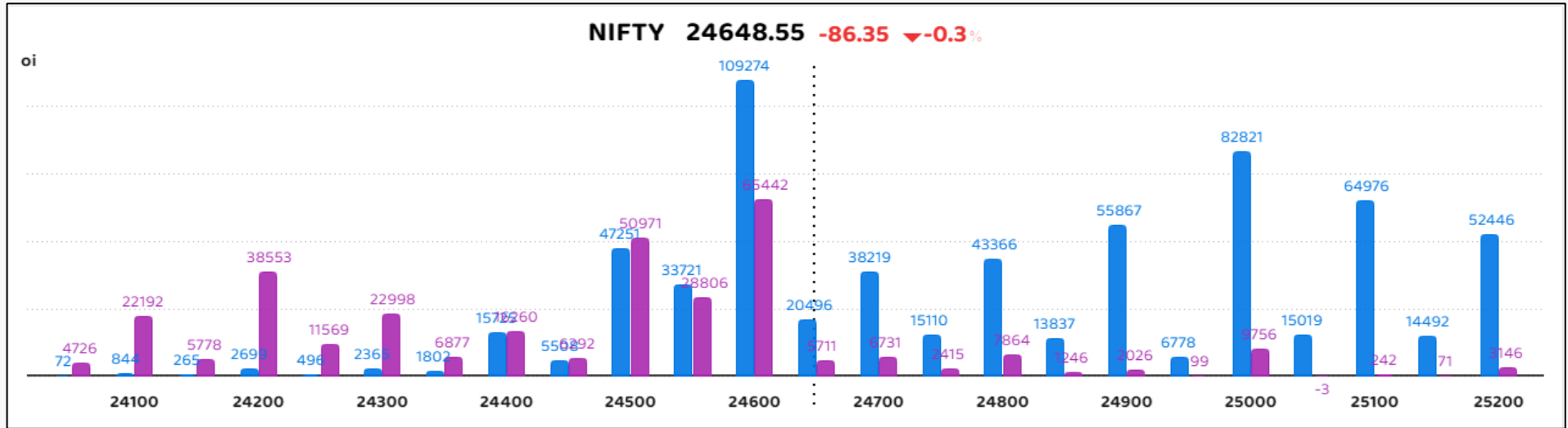


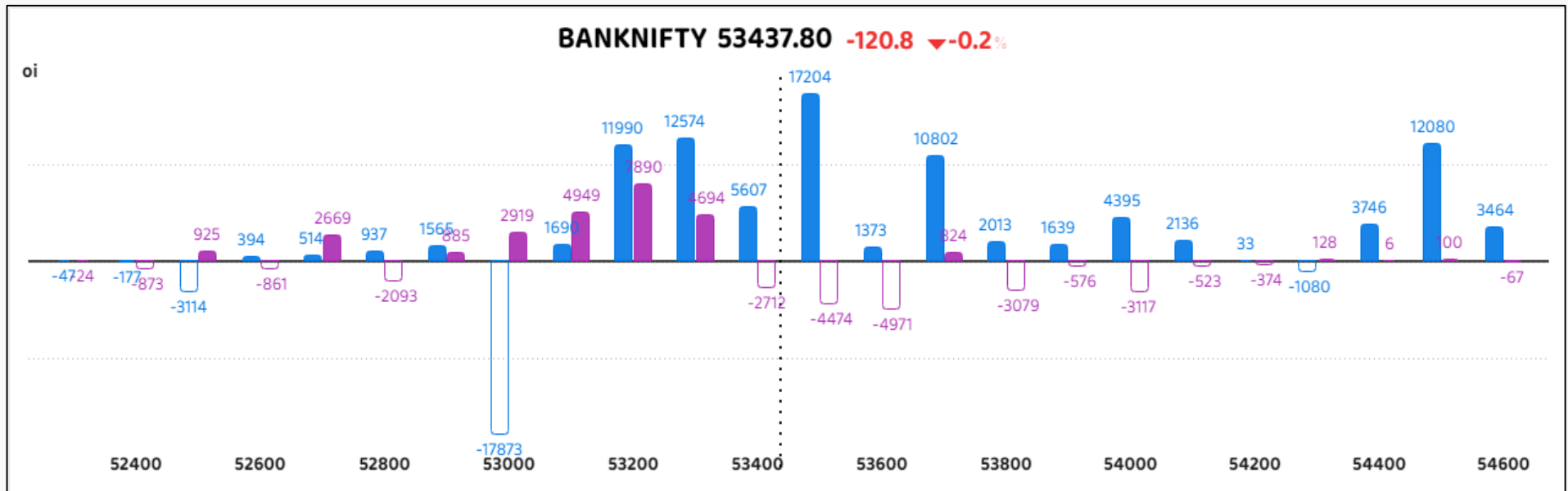
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■

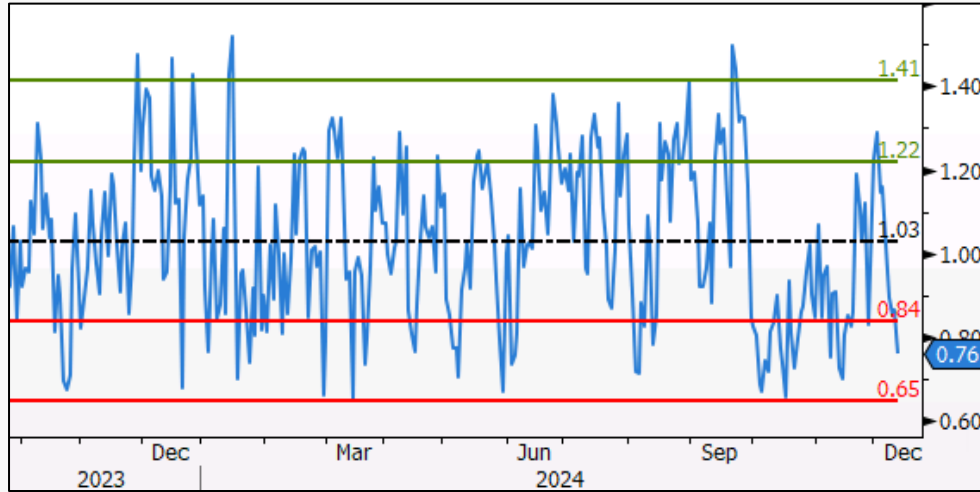


The largest open interest changes (contracts) were seen at the 24,600 call strike and 24,600 put strike.

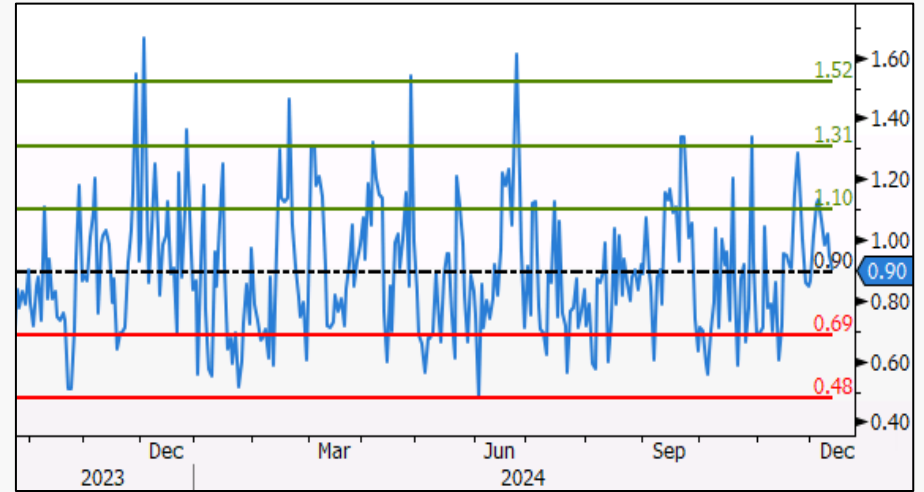


For the Bank Nifty, the biggest open interest changes were seen at the 53,000, Call Strike & 53,200 Put strike.

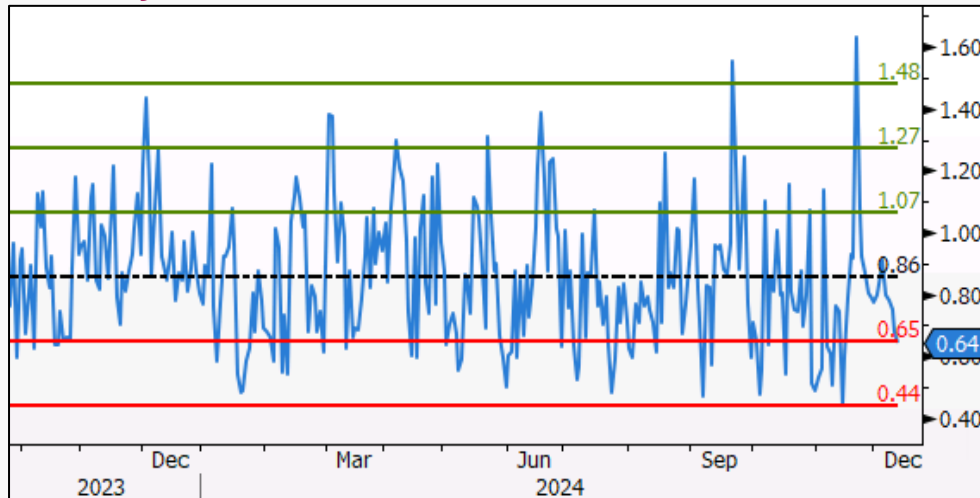
**Nifty**



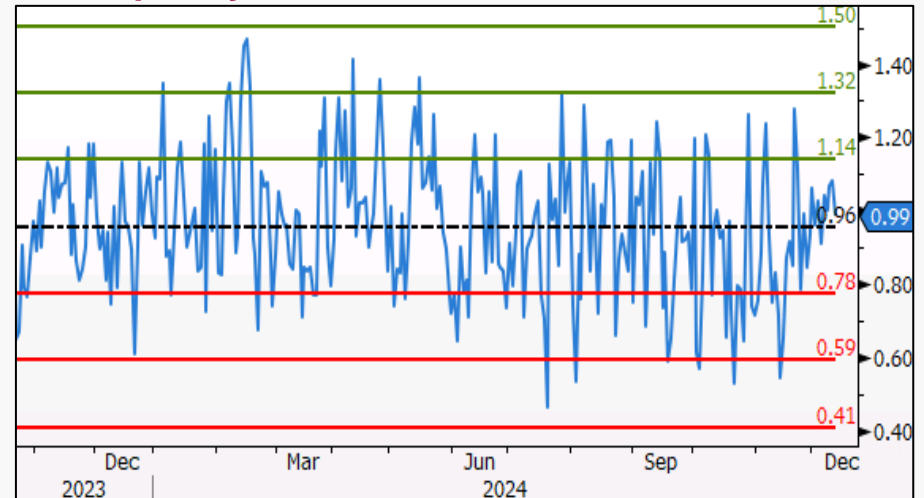
**Bank Nifty**



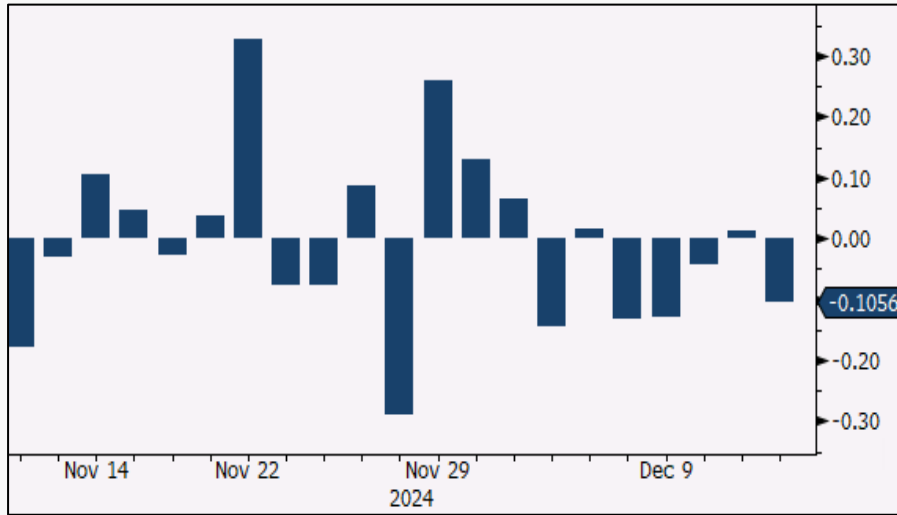
**Fin Nifty**



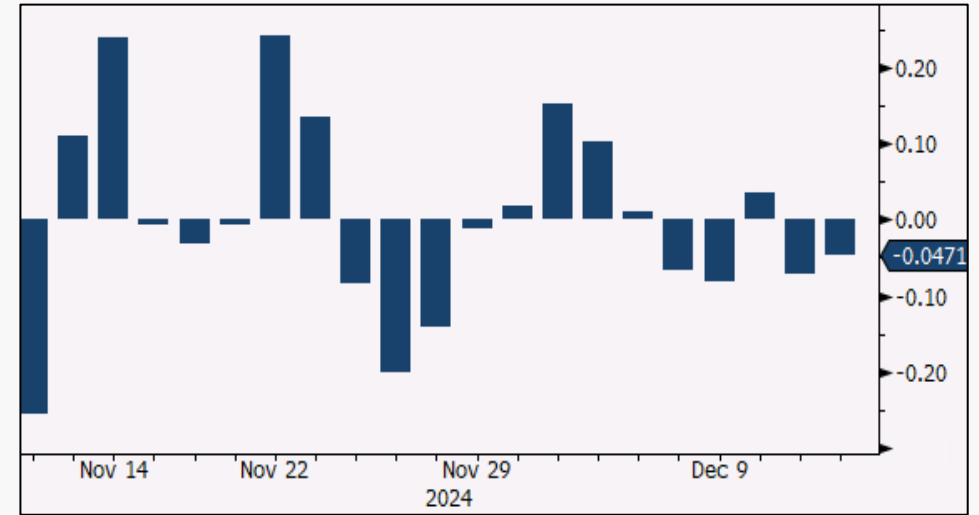
**Midcap Nifty**



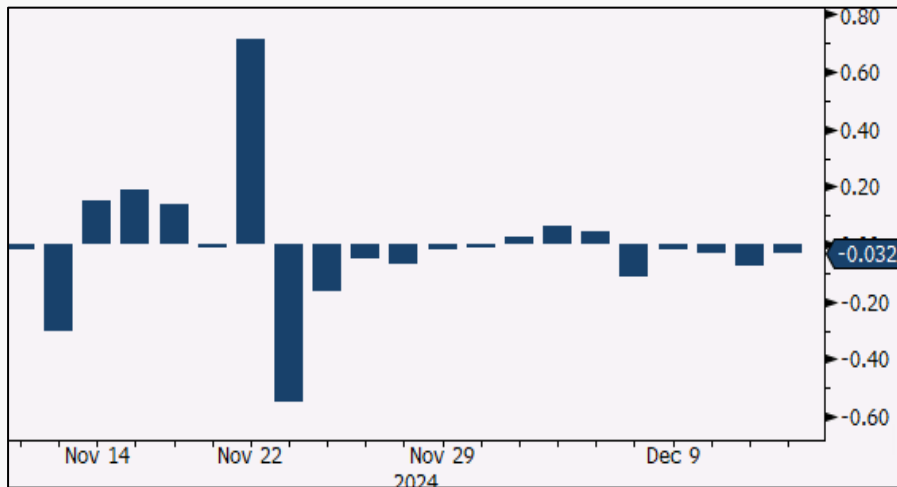
**Nifty**



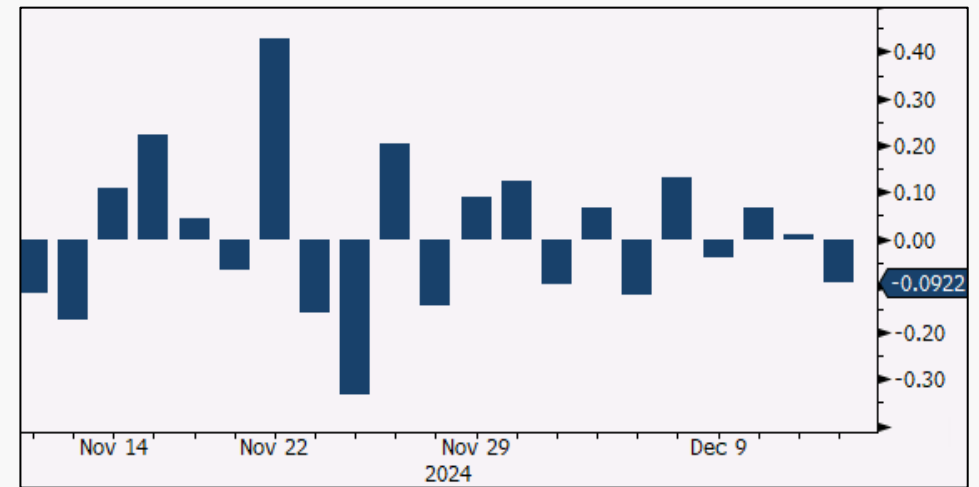
**Bank Nifty**



**Fin Nifty**



**Midcap Nifty**





## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
MANAPPURAM FINAN	178.75	0.6	64.2	80.2	2.7	79.3
COLGATE PALMOLIV	2842.85	-1.8	26.3	31.7	9.5	75.8
KOTAK MAHINDRA	1768.7	-1.4	19.8	28.7	1.9	66.6
MARUTI SUZUKI IN	11167.4	-1.0	22.4	33.7	0.4	65.9
TITAN CO LTD	3445.75	-0.8	22.1	33.5	2.3	63.5

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
POWER FINANCE	507.75	-1.0	31.1	72.9	31.1	0.0
REC LTD	559.55	-1.8	29.1	86.9	29.1	0.0
ICICI PRUDENTIAL	691.95	-0.5	15.3	41.4	15.3	0.0
BATA INDIA LTD	1429.8	-1.2	13.4	39.2	13.4	0.0
CITY UNION BANK	182.33	-1.9	24.6	52.1	24.6	0.0

### Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
MANAPPURAM FINAN	178.75	0.6	64.2	80.2	2.7	99.6
COLGATE PALMOLIV	2842.85	-1.8	26.3	31.7	9.5	89.3
PVR INOX LTD	1459.65	-1.8	34.1	43.7	18.0	77.5
ATUL LTD	7261.10	-3.0	30.4	41.5	13.6	74.5
SYNGENE INTERNAT	870.05	-3.8	31.1	41.6	17.8	69.3

### Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
POWER FINANCE	507.75	-1.0	31.1	72.9	31.1	0.0
REC LTD	559.55	-1.8	29.1	86.9	29.1	0.0
ICICI PRUDENTIAL	691.95	-0.5	15.3	41.4	15.3	0.0
BATA INDIA LTD	1429.8	-1.2	13.4	39.2	13.4	0.0
CITY UNION BANK	182.33	-1.9	24.6	52.1	24.6	0.0

**Stocks With High Call Volume To Put Volume**

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
L&T TECHNOLOGY S	5422.8	1.0	13482	2924	4.6
COROMANDEL INTER	1778.6	0.6	5691	1298	4.4
TATA COMMUNICATI	1851.1	0.6	35489	8132	4.4
INFO EDGE	8614.3	0.7	55316	14071	3.9
IPCA LABS LTD	1560.5	0.5	4515	1184	3.8

**Stocks With High Put Volume To Call Volume**

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
HDFC BANK LTD	1859.25	-0.2	74667	79946	1.1
MAX FINANCIAL SE	1127.1	-1.6	4507	4740	1.1
SUN TV NETWORK	722.7	-3.6	4549	4602	1.0
RAMCO CEMENT/THE	998.1	-2.2	7044	6871	1.0
SBI LIFE INSURAN	1432.5	-1.6	21866	21182	1.0

## Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Call OI Diff
COLGATE PALMOLIV	2842.85	-1.8	21746	21746	100.0
JK CEMENTS LTD	4650.85	-1.0	4393	4393	100.0
NATIONAL ALUMIN	230.78	-7.5	18974	18974	100.0
COAL INDIA LTD	409.1	-1.9	37128	37562	98.8
CIPLA LTD	1445.4	-0.6	26825	27284	98.3

## Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Put OI Diff
COAL INDIA LTD	409.1	-1.9	25328	25328	100.0
COLGATE PALMOLIV	2842.85	-1.8	8614	8614	100.0
DIXON TECHNOLOGI	17697.35	1.0	42069	42069	100.0
JK CEMENTS LTD	4650.85	-1.0	2405	2405	100.0
SYNGENE INTERNAT	870.05	-3.8	2605	2609	99.9

### Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Volume	Highest CV	CV Diff
NATIONAL ALUMIN	230.78	-7.5	86547	103232	83.8

### Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	PV Diff
NO STOCK OPTION MET THIS CRITERIA IN THE PREVIOUS SESSION					

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
COFORGE LTD	9195.95	2.2	181152	34310	5.3
TATA COMMUNICATI	1851.1	0.6	35489	10174	3.5
NATIONAL ALUMIN	230.78	-7.5	86547	26343	3.3
ATUL LTD	7261.1	-3.0	5298	1776	3.0
LTIMINDTREE LTD	6667.65	1.0	40278	15025	2.7

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
ATUL LTD	7261	-3.0	2992	632	4.7
NATIONAL ALUMIN	231	-7.5	53679	17612	3.0
JUBILANT FOODWOR	672	-5.0	27291	8964	3.0
COFORGE LTD	9196	2.2	71964	24978	2.9
CONTAINER CORP	825	-3.7	14473	5542	2.6

**Call Open Interest to 20-day Average**

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
GODREJ CONSUMER	1111.1	-2.1	16310	5530	2.9
JK CEMENTS LTD	4650.85	-1.0	4393	1574	2.8
ATUL LTD	7261.1	-3.0	2382	1198	2.0
TATA CONSUMER PR	921.25	-1.5	25504	12886	2.0
SYNGENE INTERNAT	870.05	-3.8	5183	2658	2.0

**Put Open Interest to 20-day Average**

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
GODREJ CONSUMER	1111.1	-2.1	7789	3048	2.6
JK CEMENTS LTD	4650.85	-1.0	2405	1208	2.0
METROPOLIS HEALT	2226.35	0.2	2164	1095	2.0
SYNGENE INTERNAT	870.05	-3.8	2605	1471	1.8
HINDUSTAN UNILEV	2344.95	-2.3	18812	11415	1.6

## 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
ADANIENT	3000	1760700	19.8%	2504	3000	2091000	19.8%	INFY	2000	3110800	0.7%	1987	1900	2344800	-4.4%
ADANIPTS	1300	3533200	4.5%	1244	1200	1680400	-3.5%	ITC	480	10120000	4.2%	461	460	3262400	-0.1%
APOLLOHOSP	7500	126750	3.8%	7227	7000	139500	-3.1%	JSWSTEEL	1020	1323000	1.4%	1006	1000	652725	-0.6%
ASIANPAINT	2500	2217200	4.6%	2390	2400	648000	0.4%	KOTAKBANK	1900	2578400	7.4%	1769	1800	1098800	1.8%
AXISBANK	1200	5206250	4.7%	1146	1140	1613125	-0.5%	LT	4000	1095750	3.6%	3860	3700	505650	-4.1%
BAJAJ-AUTO	10000	520725	11.6%	8963	9000	205200	0.4%	LTIM	6750	166050	1.2%	6668	6600	78150	-1.0%
BAJAJFINSV	1700	1996500	1.2%	1679	1600	556000	-4.7%	M&M	3100	939750	1.1%	3067	3000	475650	-2.2%
BAJFINANCE	7200	515375	1.0%	7126	6800	501500	-4.6%	MARUTI	11500	427300	3.0%	11167	11000	135550	-1.5%
BHARTIARTL	1600	2567375	-0.7%	1611	1500	953325	-6.9%	NESTLEIND	2300	624800	3.4%	2224	2200	268600	-1.1%
BPCL	310	5047200	2.6%	302	290	2082600	-4.0%	NTPC	370	16005000	4.0%	356	350	2520000	-1.6%
BRITANNIA	5000	433300	3.6%	4828	4700	130200	-2.7%	ONGC	264	11678975	3.9%	254	250	2140600	-1.6%
CIPLA	1500	1842425	3.8%	1445	1480	454350	2.4%	POWERGRID	350	6557400	6.3%	329	320	1987200	-2.8%
COALINDIA	420	6270600	2.7%	409	410	2620800	0.2%	RELIANCE	1300	17336500	2.9%	1263	1300	8721500	2.9%
DIVISLAB	6200	296400	4.2%	5952	6000	160900	0.8%	SBLIFE	1500	1708875	4.7%	1433	1400	495375	-2.3%
DRREDDY	1300	631875	4.4%	1245	1200	361250	-3.6%	SBIN	900	7371750	5.4%	854	800	4968000	-6.3%
EICHERMOT	5000	343875	4.0%	4808	4500	196000	-6.4%	SUNPHARMA	1820	2936500	0.8%	1805	1800	481250	-0.3%
GRASIM	2700	380750	1.5%	2660	2600	153250	-2.3%	TATACONSUM	950	2670336	3.1%	921	940	651168	2.0%
HCLTECH	1960	1001000	1.2%	1936	1920	563850	-0.8%	TATAMOTORS	800	11510950	1.7%	786	800	4259750	1.7%
HDFCBANK	1900	6150100	2.2%	1859	1800	4474800	-3.2%	TATASTEEL	160	28946500	6.1%	151	140	15658500	-7.1%
HDFCLIFE	700	3861000	11.7%	627	600	1421200	-4.2%	TCS	4500	819175	1.0%	4455	4200	721525	-5.7%
HEROMOTOCO	4700	766050	3.1%	4557	4600	355050	0.9%	TECHM	1800	1474800	0.6%	1790	1600	658800	-10.6%
HINDALCO	700	4625600	4.7%	669	670	1848000	0.2%	TITAN	3500	460950	1.6%	3446	3300	331275	-4.2%
HINDUNILVR	2500	2167800	6.6%	2345	2340	573600	-0.2%	ULTRACEMCO	12000	232000	1.2%	11857	11000	147300	-7.2%
ICICIBANK	1340	5043500	0.8%	1329	1300	2620100	-2.2%	UPL	560	1505405	2.3%	547	540	502705	-1.4%
INDUSINDBK	1000	4701000	0.2%	998	1000	2435500	0.2%	WIPRO	310	5076000	0.3%	309	300	4161000	-2.9%

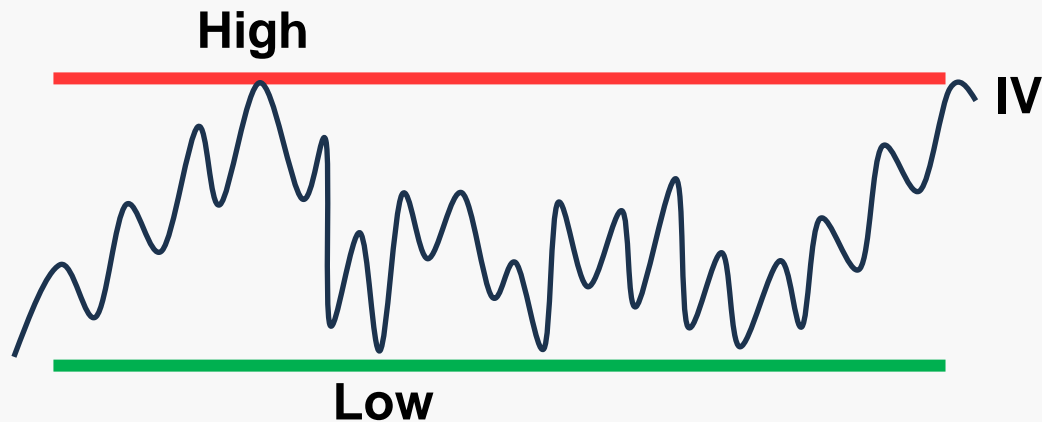
If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green  
 If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike 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



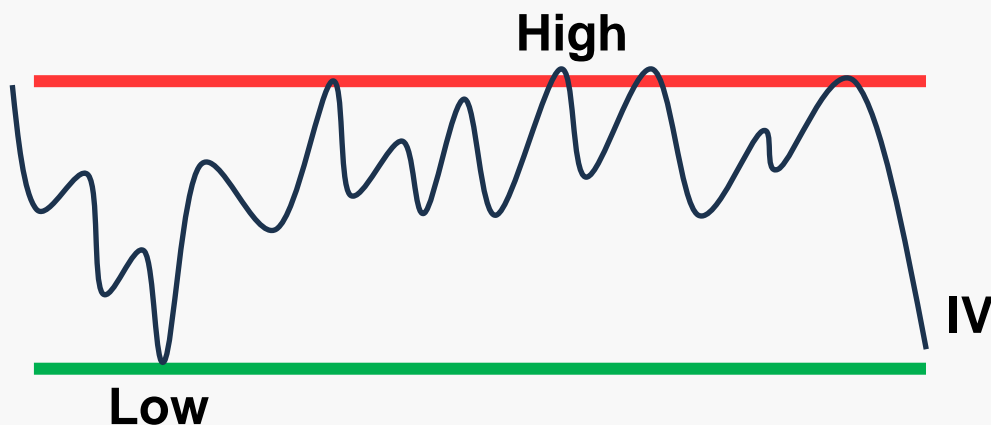
- Open interest **goes up** when **both** the buyer and the seller are **opening a new position**
- Open interest remains the **same** when one party is **opening a new position** and the other is **liquidating an existing position**
- Open interest **falls** when both the buyer and the seller are **liquidating 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**

- **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

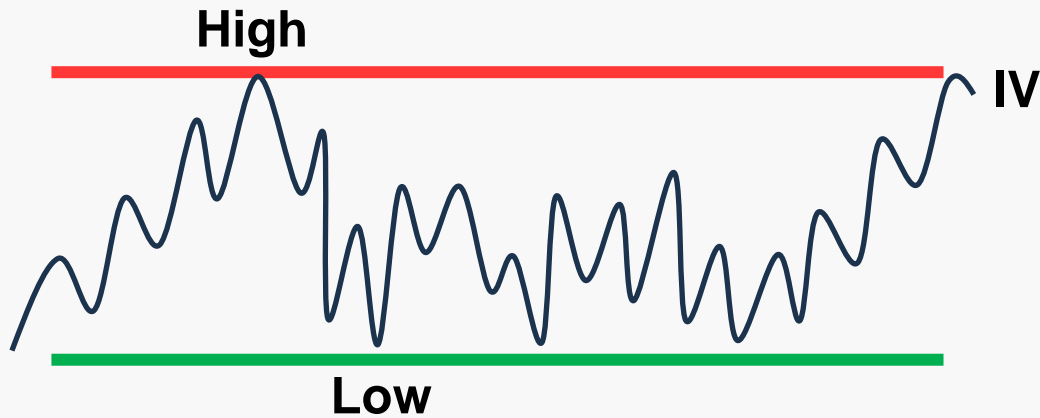


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

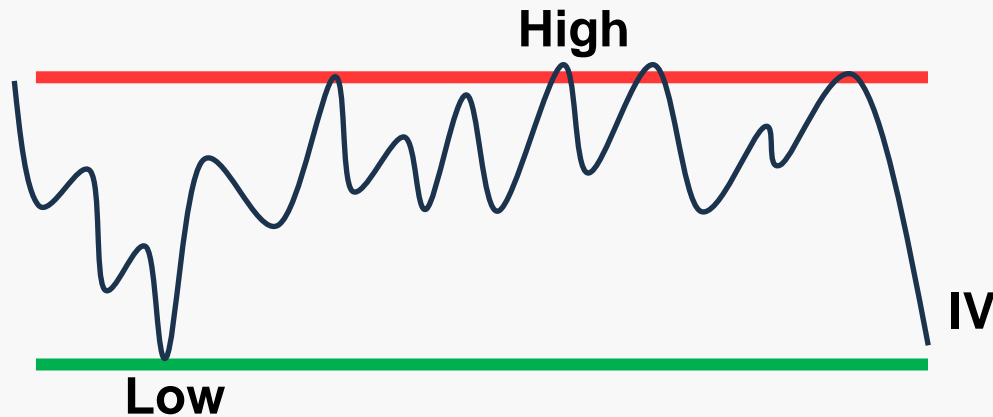


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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