



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,920	0.0% ▼
Open Interest (OI)	1,20,87,650	15.8% ▲
Change in OI (abs)	1,20,87,650	34,62,250 ▲
Premium / Discount (Abs)	170	127 ▲
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	51,575	0.3% ▼
Open interest (OI)	23,53,200	7.4% ▲
Change in OI (abs)	23,53,200	1,62,960 ▲
Premium / Discount (Abs)	495	91 ▼
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	14.03	0.9 ▲
Nifty ATM IV (%)	13.95	4.4 ▲
Bank Nifty ATM IV (%)	15.08	1.0 ▲
PCR (Nifty)	0.89	0.06 ▼
PCR (Bank Nifty)	1.10	0.23 ▲

*The Long Short Ratio for the FI Index Futures now stands at 18.41%, a **decrease** from 23.89% recorded in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
CONCOR	1,68,10,000	55.9%	781.6	0.2%
ADANIENSOL	53,08,750	50.2%	798.8	2.8%
ACC	41,15,400	42.9%	2105	0.4%
IEX	3,32,40,000	40.3%	181.67	1.9%
LAURUSLABS	2,20,64,300	38.7%	574.7	0.7%

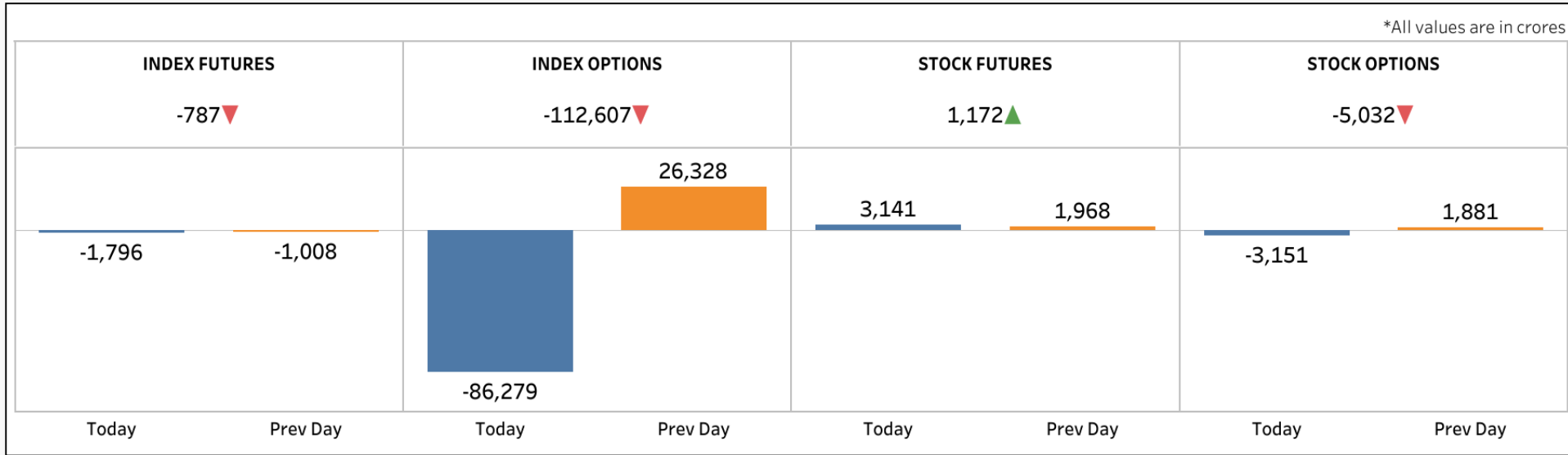
Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MANAPPURAM	5,83,56,000	716.6%	185.9	-1.6%
BANDHANBNK	9,55,19,200	268.9%	162.79	-3.1%
GNFC	51,32,400	62.0%	579.8	-1.1%
GMRAIRPORT	26,86,27,500	59.0%	79.66	-0.2%
HUDCO	1,28,18,550	49.8%	229.03	-2.1%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)

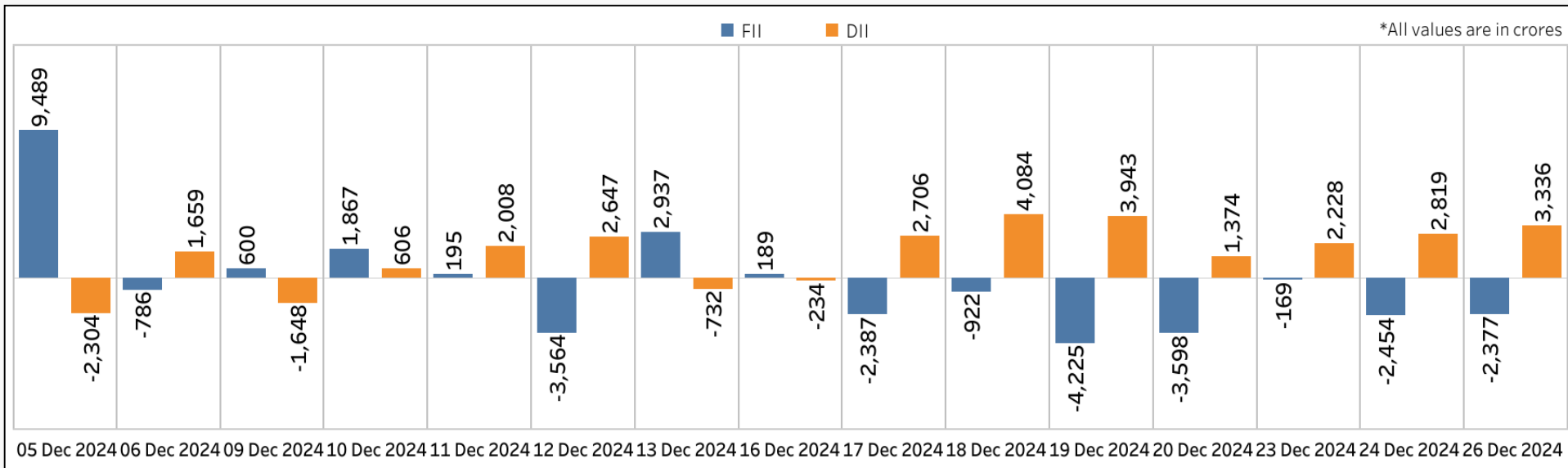
Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BATAINDIA	28,40,250	-1.6%	1339.1	-0.8%

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

Daily Net Open Interest Change

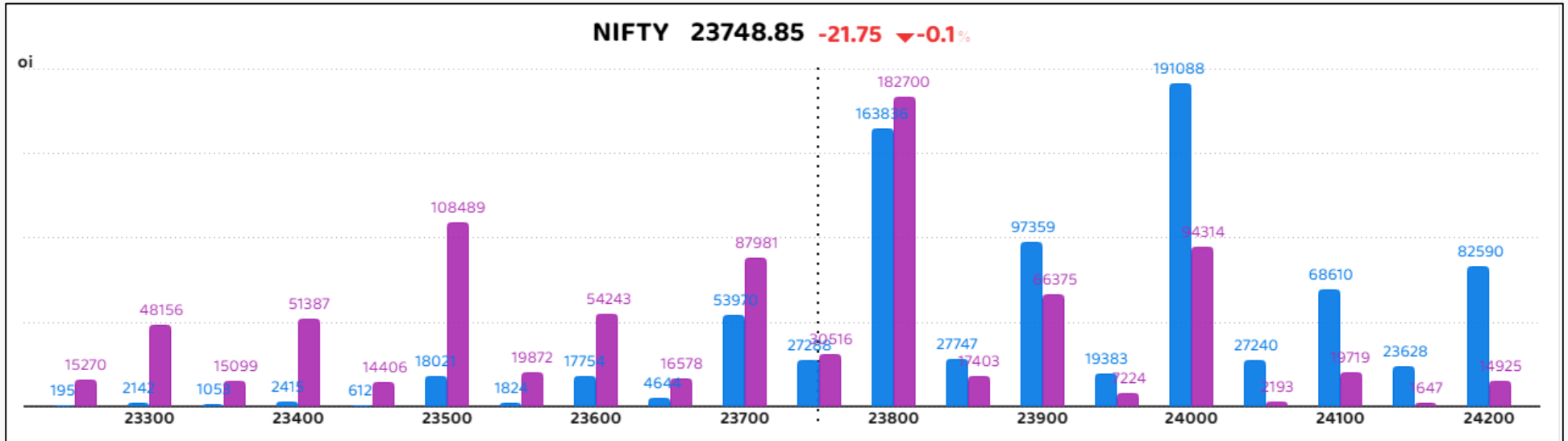


DII and FII Daily Cash Market Flows



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

Call ■ Put ■



For the Nifty, the 24000 Call and the 23800 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 52000 Call and the 51500 Put saw the most amount of open interest.

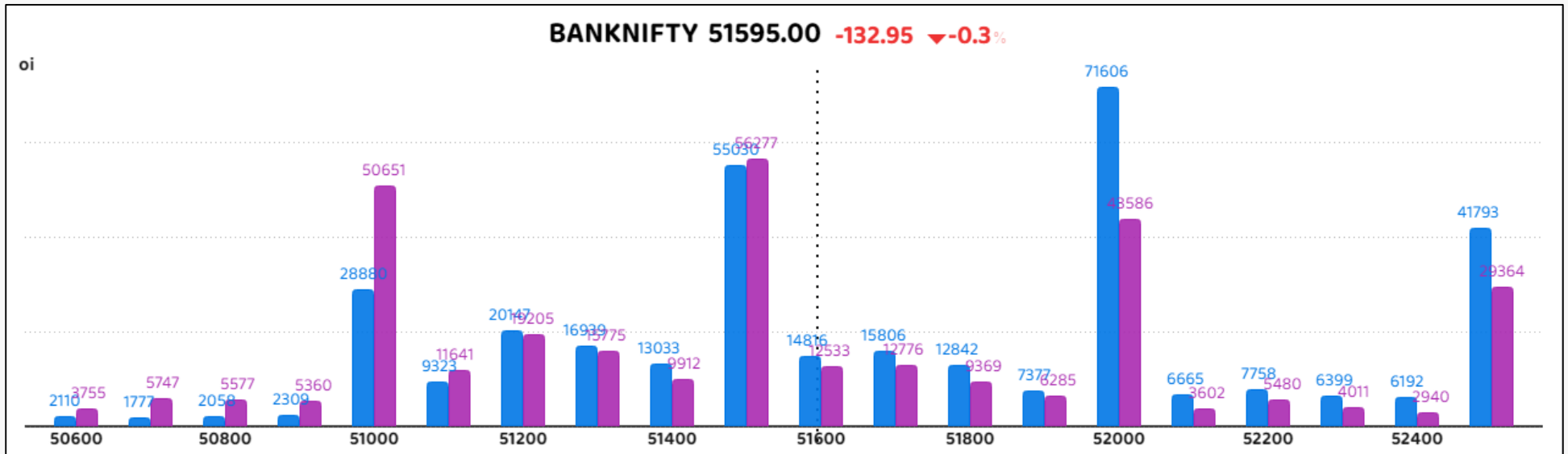
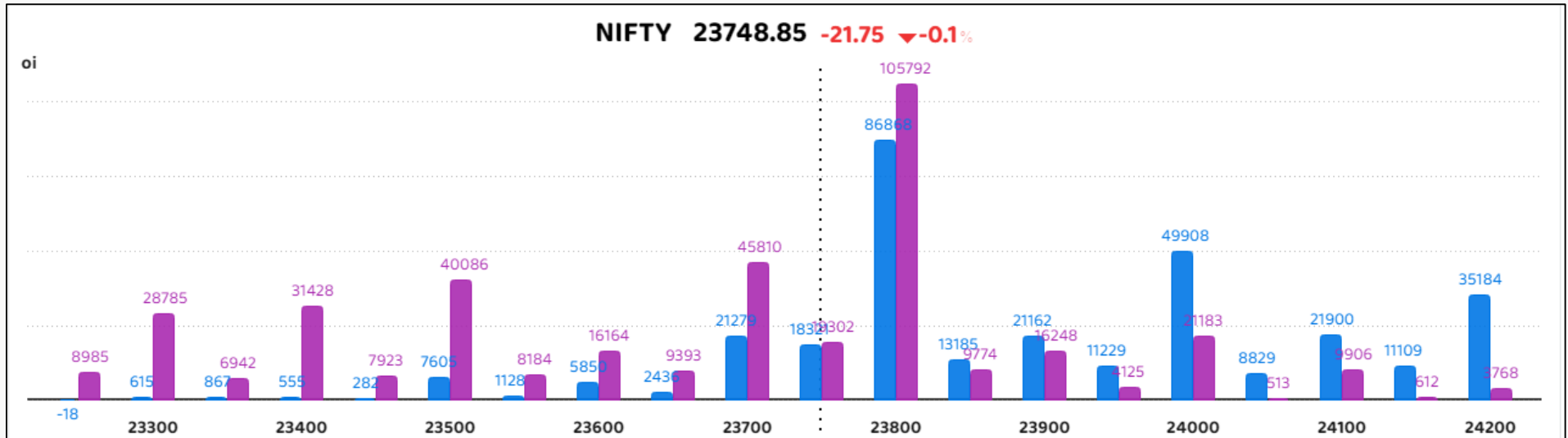


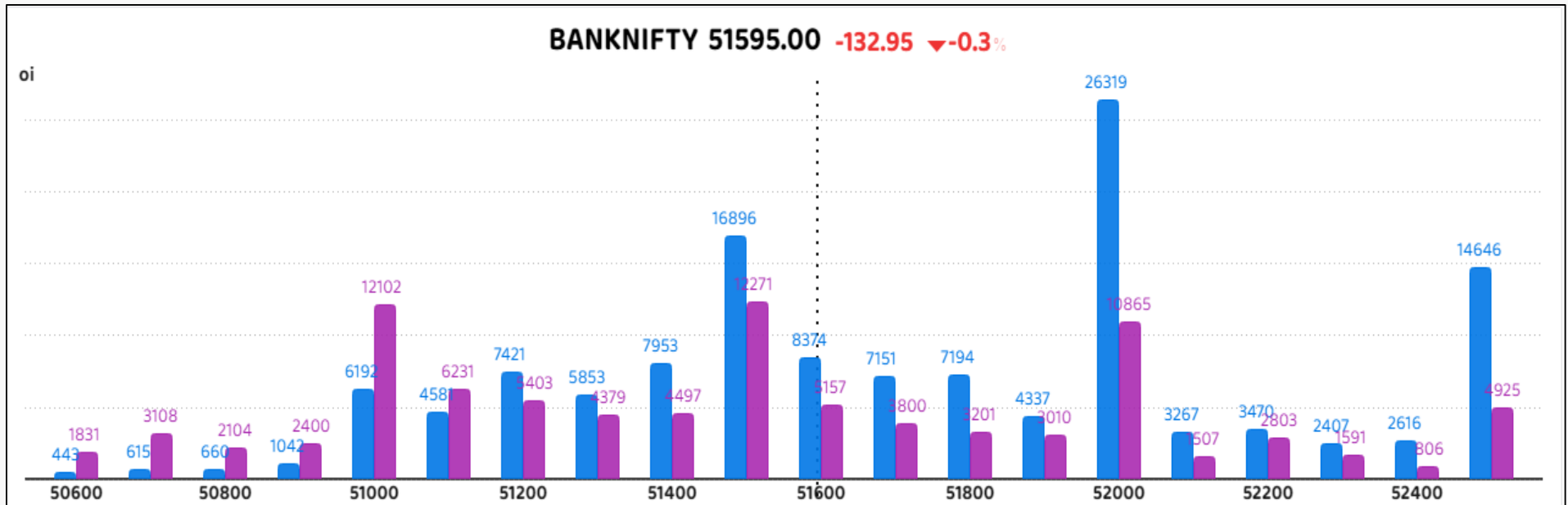
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■

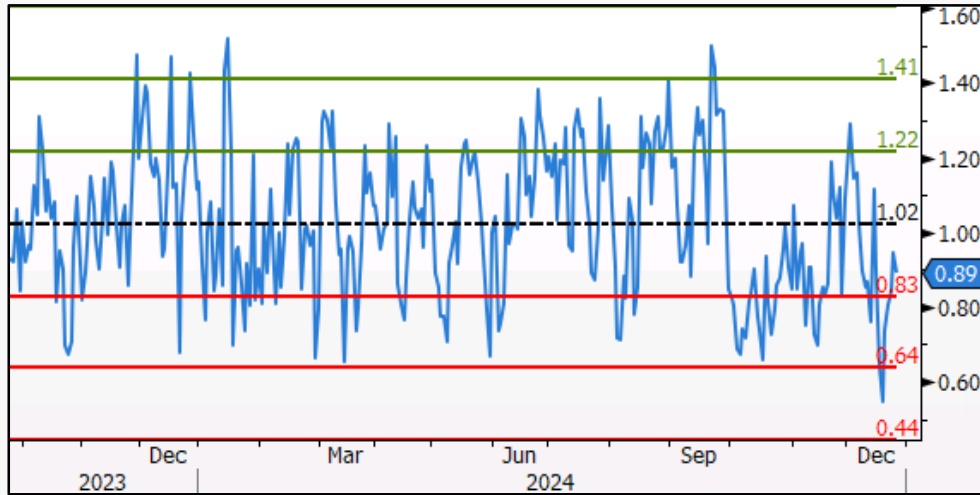


The largest open interest changes (contracts) were seen at the 23800 Call and the 23800 Put

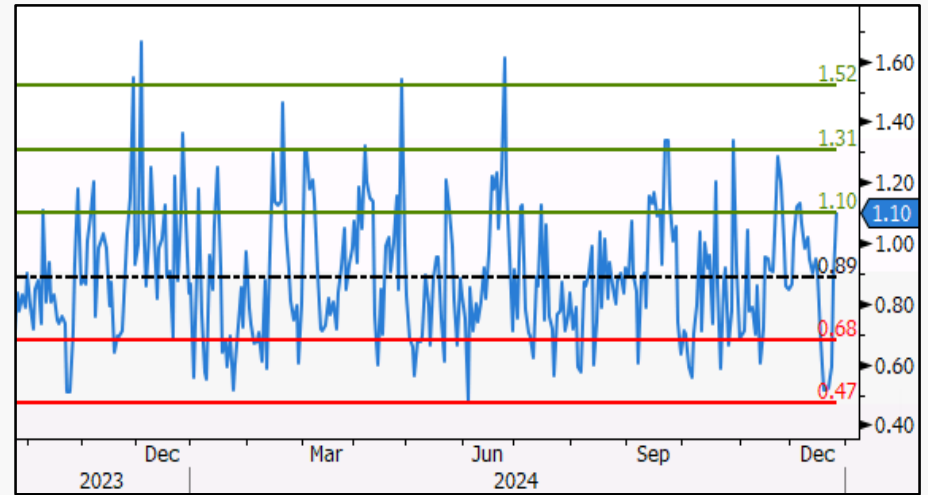


For the Bank Nifty, the biggest open interest changes were seen at the 52000 Call & the 51500 Put

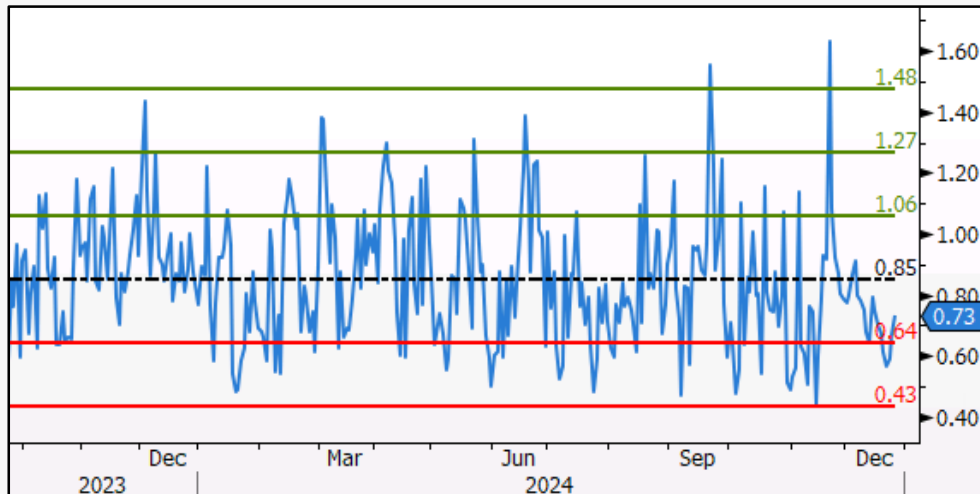
Nifty



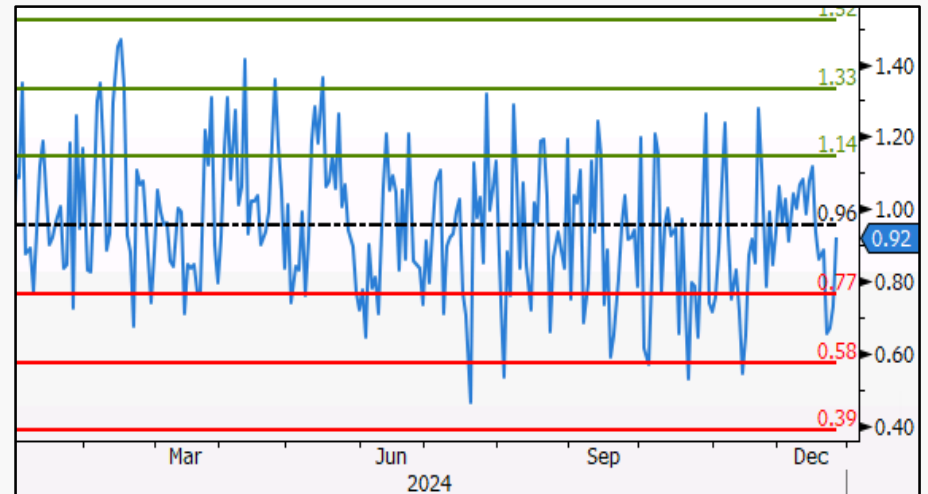
Bank Nifty



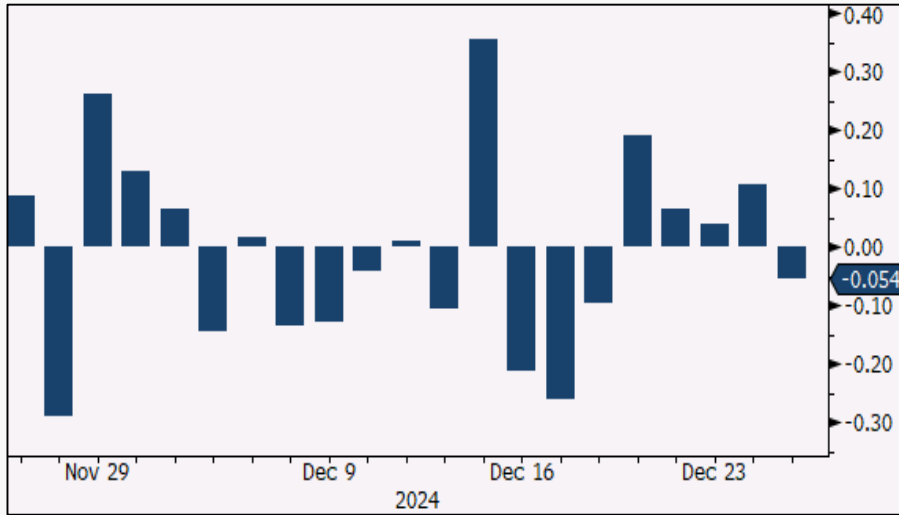
Fin Nifty



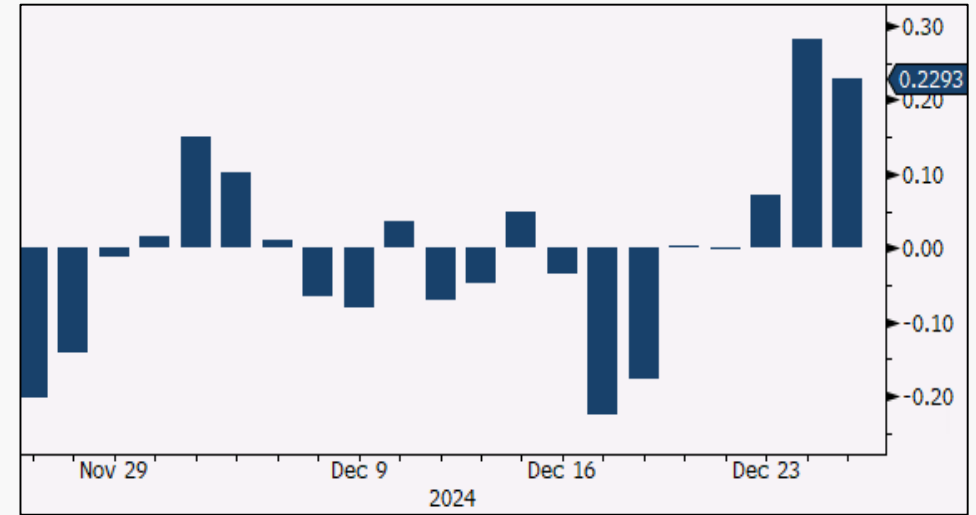
Midcap Nifty



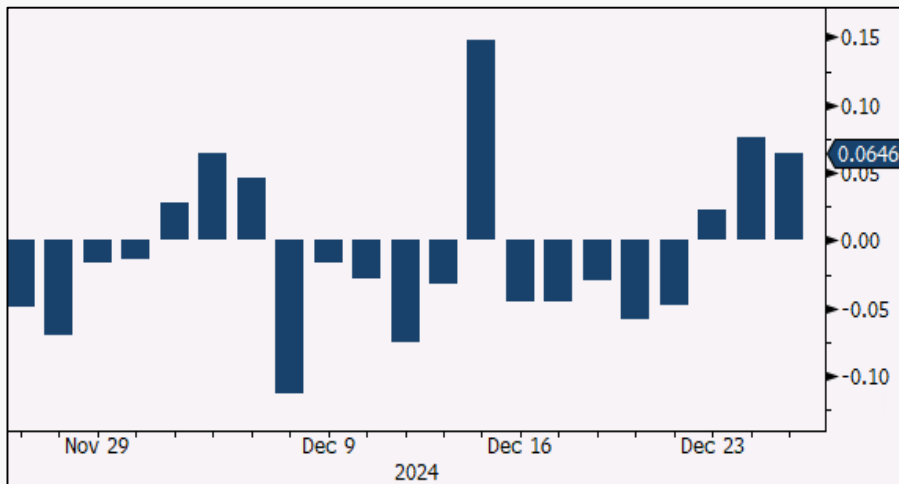
Nifty



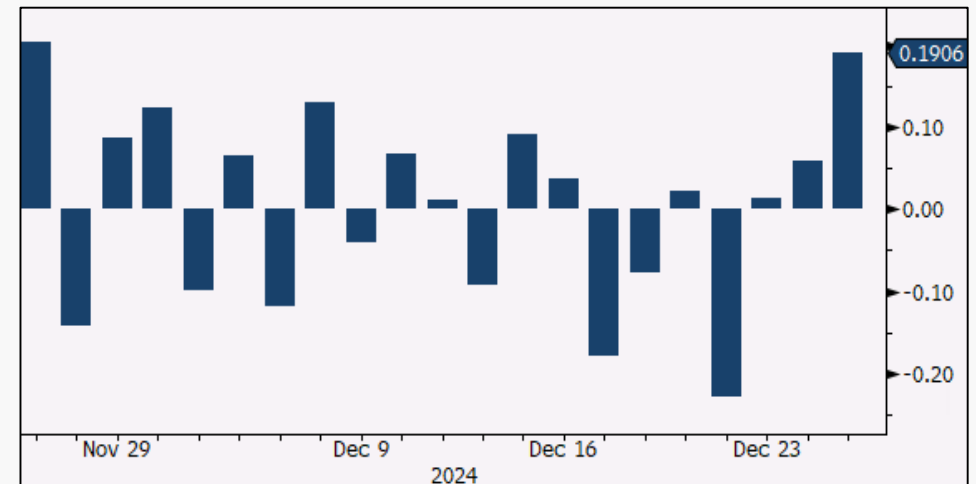
Bank Nifty



Fin Nifty



Midcap Nifty



Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
RBK IS	162.41	-0.6	71.1	79.2	13.3	87.6
DIXON TECHNOLOGI	18038.15	0.8	33.8	51.3	1.8	64.5
CLGT IS	2719.2	-0.5	23.5	31.7	9.5	62.9
RELIANCE INDS	1216.55	-0.5	21.0	33.8	2.1	59.6
MARUTI SUZUKI IN	10896	1.5	20.2	33.7	0.4	59.3

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ITC LTD	476.95	-0.3	10.2	66.4	10.2	0.0
BHARAT ELECTRON	295.2	0.9	25.5	81.6	25.5	0.0
POWER FINANCE	463.25	2.7	28.5	72.9	28.5	0.0
BOB IS	246.68	0.7	24.5	66.9	24.5	0.0
BHEL IS	241.75	1.0	29.7	83.9	29.7	0.0

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
RBL BANK LTD	162.41	-0.6	71.1	79.2	13.3	83.4
COLGATE PALMOLIV	2719.2	-0.5	23.5	31.7	9.5	78.2
INDUSIND BANK	931.95	-0.4	26.2	60.4	12.4	76.1
RELIANCE INDS	1216.55	-0.5	21.0	33.8	2.1	75.7
ATUL LTD	7097.35	0.1	27.2	41.5	13.6	75.2

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ITC LTD	476.95	-0.3	10.2	66.4	10.2	0.0
BHARAT ELECTRON	295.2	0.9	25.5	81.6	25.5	0.0
POWER FINANCE	463.25	2.7	28.5	72.9	28.5	0.0
BANK OF BARODA	246.68	0.7	24.5	66.9	24.5	0.0
BHARAT HEAVY ELE	241.75	1.0	29.7	83.9	29.7	0.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
MUTHOOT FINANCE	2062.5	1.4	2474	555	4.5
APOLLO TYRES LTD	542.25	1.4	3609	991	3.6
UNITED SPIRITS	1566.95	0.1	3171	873	3.6
SUN PHARMA INDU	1841.35	1.2	19516	5846	3.3
JUBILANT FOODWOR	703.9	0.0	7387	2300	3.2

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
INDIAMART INTERM	2231.5	-0.6	506	1990	3.9
NAVIN FLUORINE I	3326.3	-1.5	650	1303	2.0
CAN FIN HOMES	723.95	-0.3	970	1296	1.3
ASTRAL LTD	1671.5	-1.3	2787	3656	1.3
PAGE INDUSTRIES	47083.35	-3.6	1004	1316	1.3

Call Open Interest Relative to Record High

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

Put Open Interest Relative to Record High

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

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	CV Diff
NO STOCK OPTION MET THIS CRITERIA IN THE MOST RECENT SESSION					

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 MOST RECENT SESSION					

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
CUMMINS INDIA	3364.25	-0.4	24975	11929	2.1
HINDUSTAN COPPER	263.2	-6.2	5324	2840	1.9
BHARAT PETROL	295.6	1.2	37236	24248	1.5
MANAPPURAM FINAN	184.29	-1.0	7432	5362	1.4
INTERGLOBE AVIAT	4725	2.4	32229	23747	1.4

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
HINDUSTAN COPPER	263.2	-6.2	5734	1424	4.0
CUMMINS INDIA	3364.25	-0.4	30379	7547	4.0
BANDHAN BANK LTD	161.47	-3.0	8837	4260	2.1
MANAPPURAM FINAN	184.29	-1.0	4612	2396	1.9
ASTRAL LTD	1671.5	-1.3	3656	2359	1.5

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
TATA CHEMICALS	1057.65	-0.9	11886	7570	1.6
UPL LTD	499.65	-1.0	9604	7142	1.3
VEDANTA LTD	460.45	-0.4	41064	32522	1.3
TATA POWER CO	404.3	1.2	33962	28101	1.2
TATA MOTORS LTD	740.8	0.6	138919	121496	1.1

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
TORRENT PHARMA	3421.35	0.6	1573	1163	1.4
UNITED BREWERIES	2015.1	-1.8	1493	1111	1.3
TATA CHEMICALS	1057.65	-0.9	5824	4636	1.3
UPL LTD	499.65	-1.0	5497	4542	1.2
TATA MOTORS LTD	740.8	0.6	65876	58004	1.1

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	2800	930000	16.7%	2400	2800	2782500	16.7%	INFY	2000	848000	4.9%	1907	1900	529600	-0.4%
ADANIPTS	1300	799600	4.5%	1244	1200	917200	-3.5%	ITC	500	13660800	4.8%	477	480	3099200	0.6%
APOLLOHOSP	7300	40625	0.5%	7261	7000	34375	-3.6%	JSWSTEEL	1000	573750	9.4%	914	900	470475	-1.6%
ASIANPAINT	2500	655200	10.5%	2262	2300	556600	1.7%	KOTAKBANK	1800	884000	2.7%	1753	1800	867200	2.7%
AXISBANK	1200	2660625	11.5%	1077	1100	1669375	2.2%	LT	4000	488850	10.2%	3630	3600	483000	-0.8%
BAJAJ-AUTO	10000	110025	12.6%	8879	9000	46650	1.4%	LTIM	6500	138150	13.0%	5752	5600	47550	-2.6%
BAJAJFINSV	1700	329500	9.0%	1559	1600	208500	2.6%	M&M	3000	340725	0.8%	2976	2800	245000	-5.9%
BAJFINANCE	7500	312250	10.0%	6816	7000	218500	2.7%	MARUTI	12000	158350	10.1%	10896	11000	106650	1.0%
BHARTIARTL	1700	840275	6.3%	1600	1600	600400	0.0%	NESTLEIND	2200	257600	2.3%	2150	2200	553000	2.3%
BPCL	330	4651200	11.6%	296	300	1524600	1.5%	NTPC	350	2307000	4.6%	335	340	1402500	1.6%
BRITANNIA	5000	103900	5.0%	4762	4800	63700	0.8%	ONGC	260	3033800	8.2%	240	240	2433200	-0.1%
CIPLA	1500	330850	0.6%	1491	1500	209950	0.6%	POWERGRID	330	1445400	6.3%	310	310	1409400	-0.1%
COALINDIA	400	1733550	3.5%	387	400	1544550	3.5%	RELIANCE	1300	8302500	6.9%	1217	1300	4432000	6.9%
DIVISLAB	6000	70600	1.9%	5887	5800	63900	-1.5%	SBLIFE	1500	199125	6.5%	1409	1360	293250	-3.5%
DRREDDY	1400	575000	3.3%	1355	1300	285625	-4.1%	SBIN	850	6898500	4.6%	812	800	3654000	-1.5%
EICHERMOT	4800	83475	0.0%	4801	4400	87500	-8.4%	SUNPHARMA	1840	575050	-0.1%	1841	1840	246750	-0.1%
GRASIM	2600	155000	4.8%	2482	2520	144750	1.5%	TATACONSUM	1000	471504	11.0%	901	900	393984	-0.1%
HCLTECH	2000	227850	5.2%	1901	1900	180250	0.0%	TATAMOTORS	800	5312450	8.0%	741	750	2714800	1.2%
HDFCBANK	1800	1768800	0.5%	1791	1800	1774300	0.5%	TATASTEEL	150	15136000	6.9%	140	140	10065000	-0.3%
HDFCLIFE	700	907500	11.7%	626	630	834900	0.6%	TCS	4200	429625	0.7%	4169	4200	327600	0.7%
HEROMOTOCO	4500	221100	5.3%	4275	4300	205800	0.6%	TECHM	1800	235800	6.0%	1699	1700	268800	0.1%
HINDALCO	680	1001000	8.2%	629	600	1253000	-4.6%	TITAN	3400	373275	2.3%	3323	3400	145775	2.3%
HINDUNILVR	2400	481200	2.9%	2333	2300	294900	-1.4%	ULTRACEMCO	12000	37350	4.7%	11461	11500	30950	0.3%
ICICIBANK	1300	1303400	0.2%	1297	1300	1475600	0.2%	UPL	500	701890	0.1%	500	500	794030	0.1%
INDUSINDBK	1000	1821000	7.3%	932	1000	1012500	7.3%	WIPRO	310	2493000	1.6%	305	310	1467000	1.6%

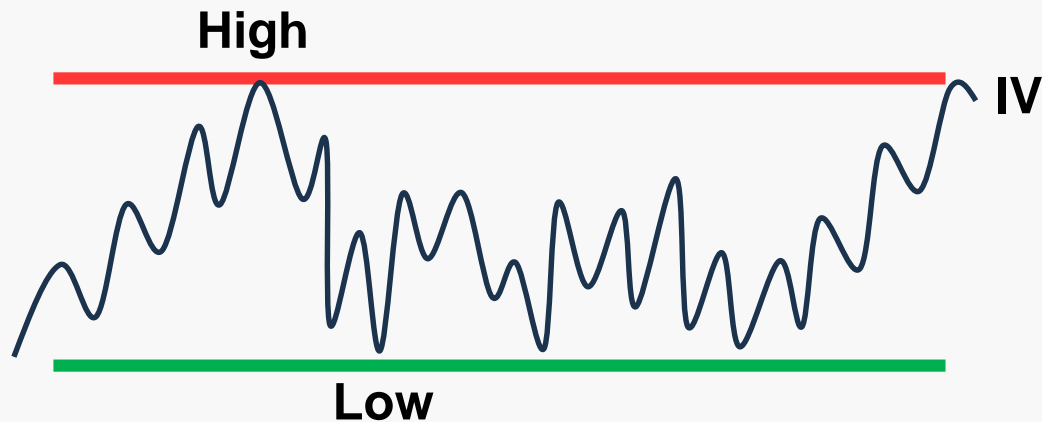
If distance to call strike from current market price < distance to put strike from current market price, then the %Away for the call strike will be colored green
 If distance to put strike from current market price < distance to call strike from current market price, then the %Away for the put strike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

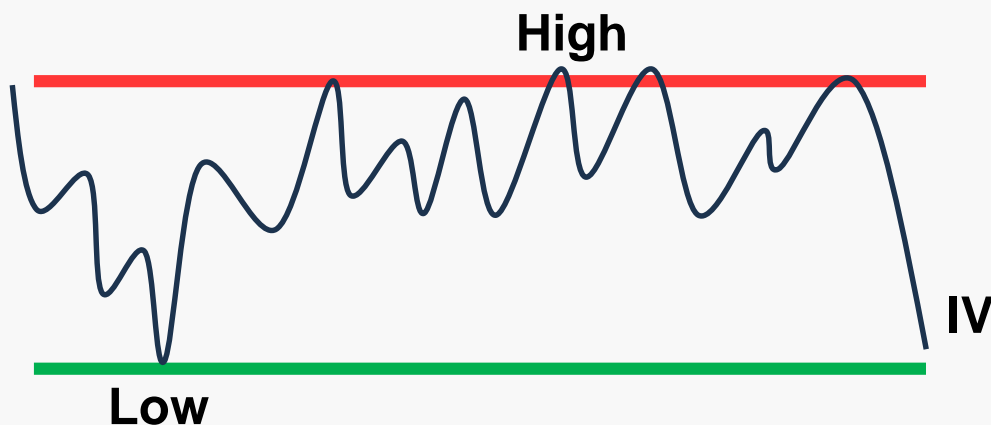
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

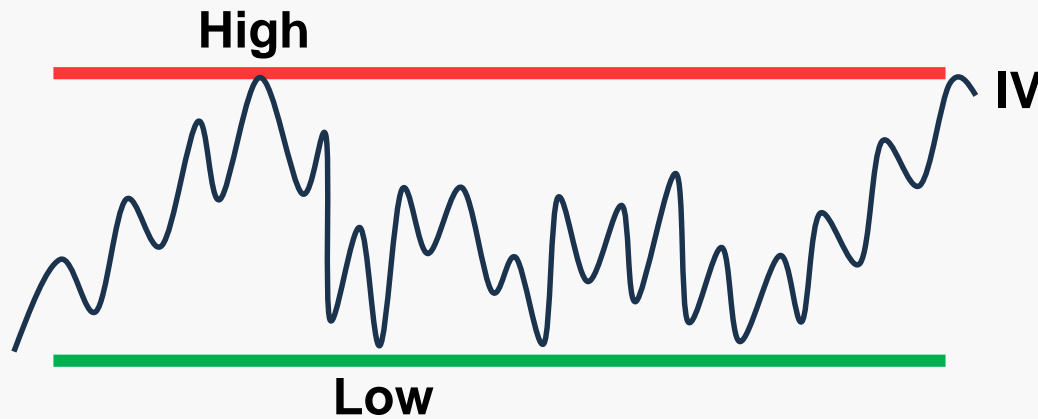


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

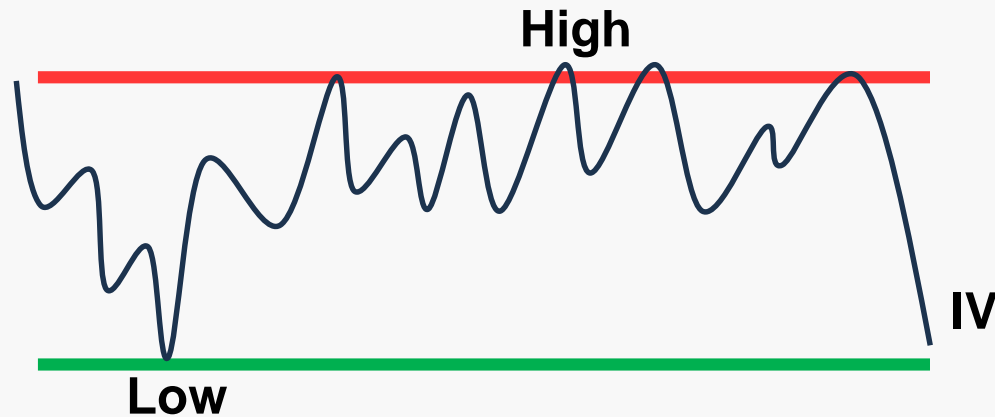


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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