



## Daily Derivatives Report

## Nifty Futures

	Value	Change
Most recent settlement	25,383	0.3%▲
Open Interest (OI)	1,74,26,435	2.6%▲
Change in OI (abs)	1,74,26,435	4,53,245▲
Premium / Discount (Abs)	207	100▼
<b>Inference</b>	<b>Long Build Up</b>	

## Bank Nifty Futures

	Value	Change
Most recent settlement	59,630	0.4%▲
Open interest (OI)	13,50,090	7.0%▲
Change in OI (abs)	13,50,090	94,290▲
Premium / Discount (Abs)	424	157▼
<b>Inference</b>	<b>Long Build Up</b>	

## Volatility Insights

	Value	Change
India VIX Index	13.53	0.92▼
Nifty ATM IV (%)	12.91	1.32▼
Bank Nifty ATM IV (%)	13.49	1.30▼
PCR (Nifty)	0.97	0.05▼
PCR (Bank Nifty)	1.14	0.02▲

The FII Long Ratio in Index Futures **jump** to 12.6 %, **up** from 11.8 % in the previous session.

## Single Stock Futures Movers

### Long Buildup (Open Interest Higher + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
SAMMAANCAP	9,62,29,700	19.7%	142.86	2.7%
OIL	1,44,57,800	13.7%	490.5	9.9%
TIINDIA	38,06,200	9.6%	2295.4	4.3%
POWERINDIA	2,95,100	9.5%	17803	5.9%
BEL	12,54,00,000	8.8%	455.95	9.2%

### Short Buildup (Open Interest Higher + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
HINDZINC	3,81,82,025	15.1%	706.35	-2.7%
ASIANPAINT	1,41,01,250	8.1%	2513.9	-4.4%
MARUTI	32,69,000	6.0%	14950	-2.6%
EICHERMOT	30,63,400	5.6%	7115.5	-1.0%
PHOENIXLTD	41,28,600	5.4%	1735.9	-0.2%

### Short Covering (Open Interest Lower + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
ZYDUSLIFE	87,86,700	-0.4%	900.45	0.1%
MCX	1,39,53,125	-5.2%	2605	6.9%
360ONE	29,14,500	-4.1%	1142.1	2.1%
APLAPOLLO	98,58,100	-4.1%	2098.5	1.4%
TECHM	1,83,69,000	-4.0%	1769.4	0.9%

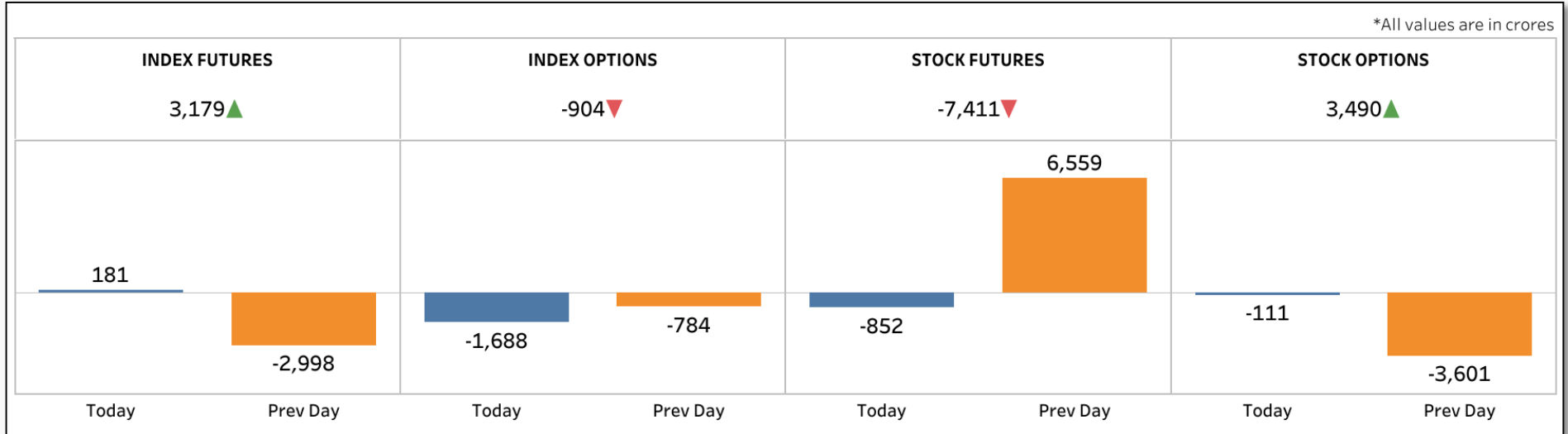
### Long Unwinding (Open Interest Lower + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
TATACONSUM	1,12,23,300	-3.2%	1136.1	-4.8%
AUBANK	2,29,85,000	-2.5%	967.6	-0.1%
LUPIN	63,93,700	-1.4%	2135.5	-1.1%
INFY	6,59,20,000	-1.3%	1673.2	-1.3%
ALKEM	12,43,750	-1.3%	5703	-0.8%

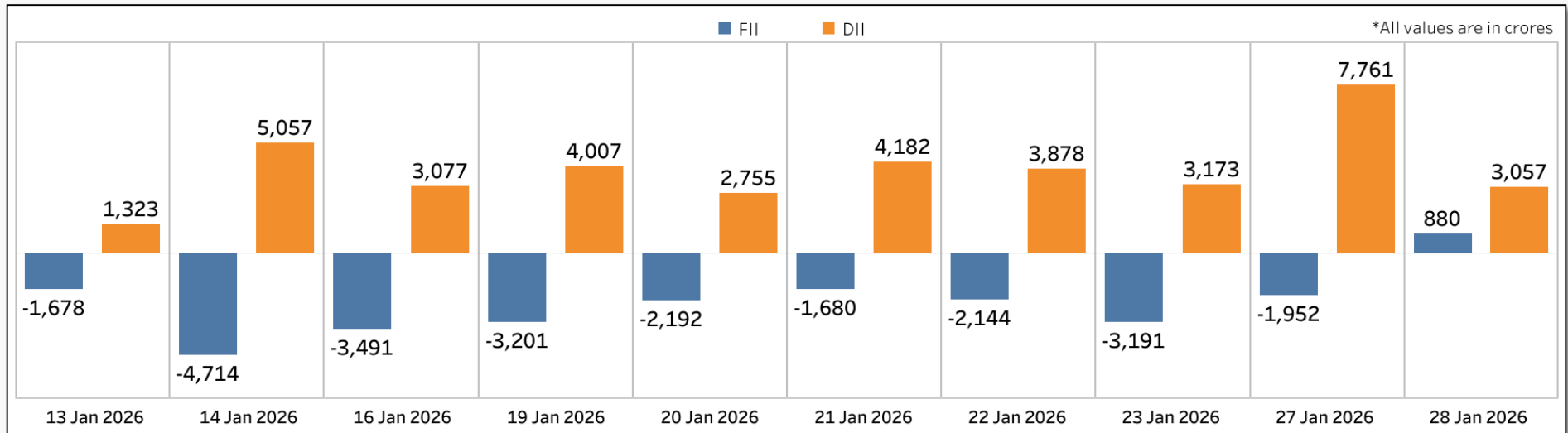
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix



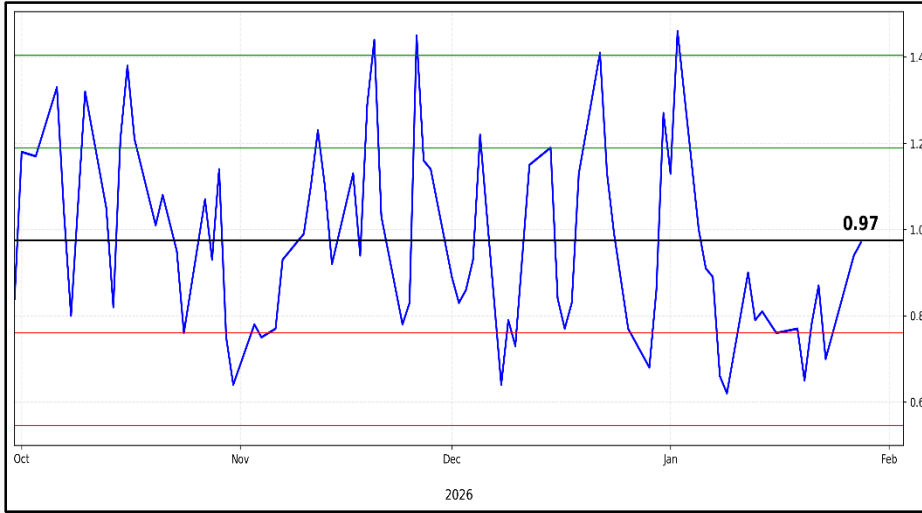
## Daily Net Open Interest Change



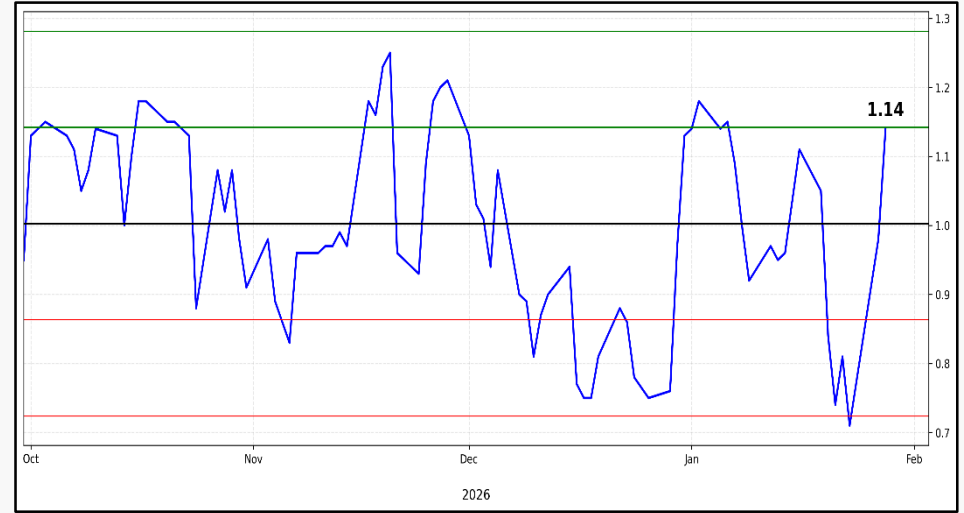
## DII and FII Daily Cash Market Flows



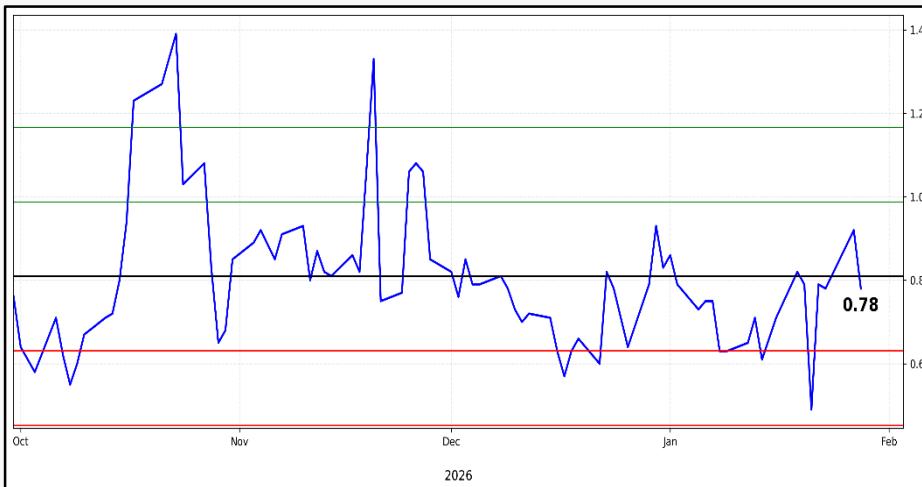
### Nifty



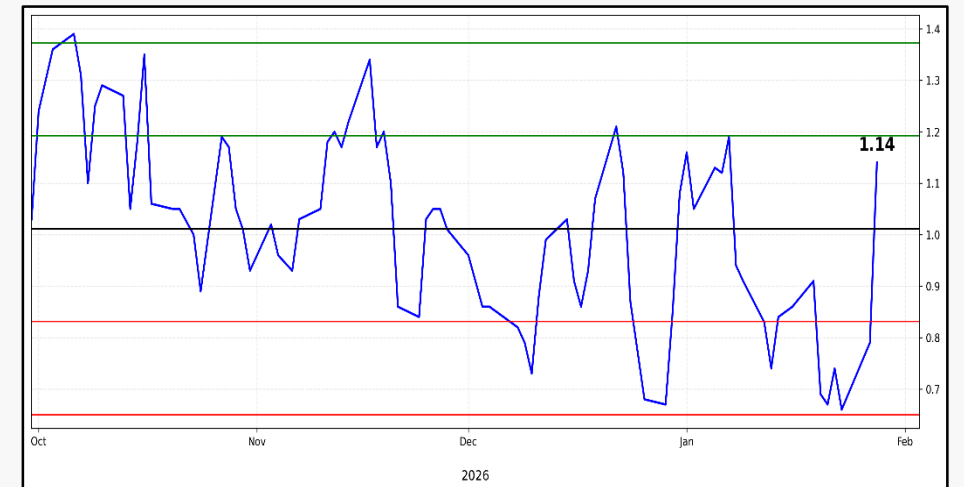
### Bank Nifty



### Fin Nifty



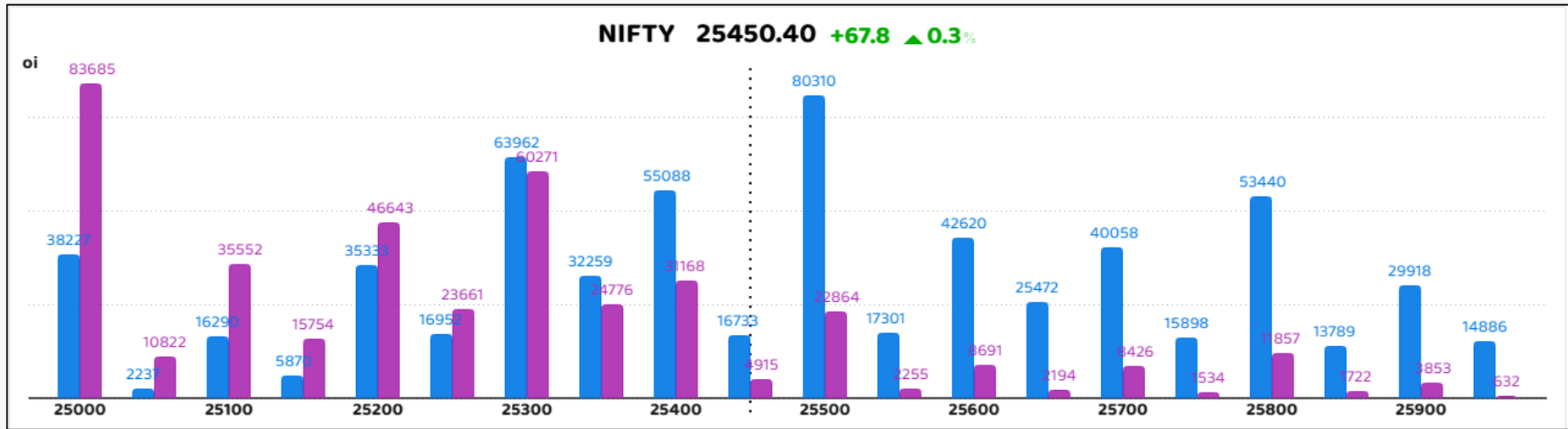
### Midcap Select Nifty



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 25,500 Call and 25,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 60,000 Call and the 60,000 Put saw the most amount of open interest.

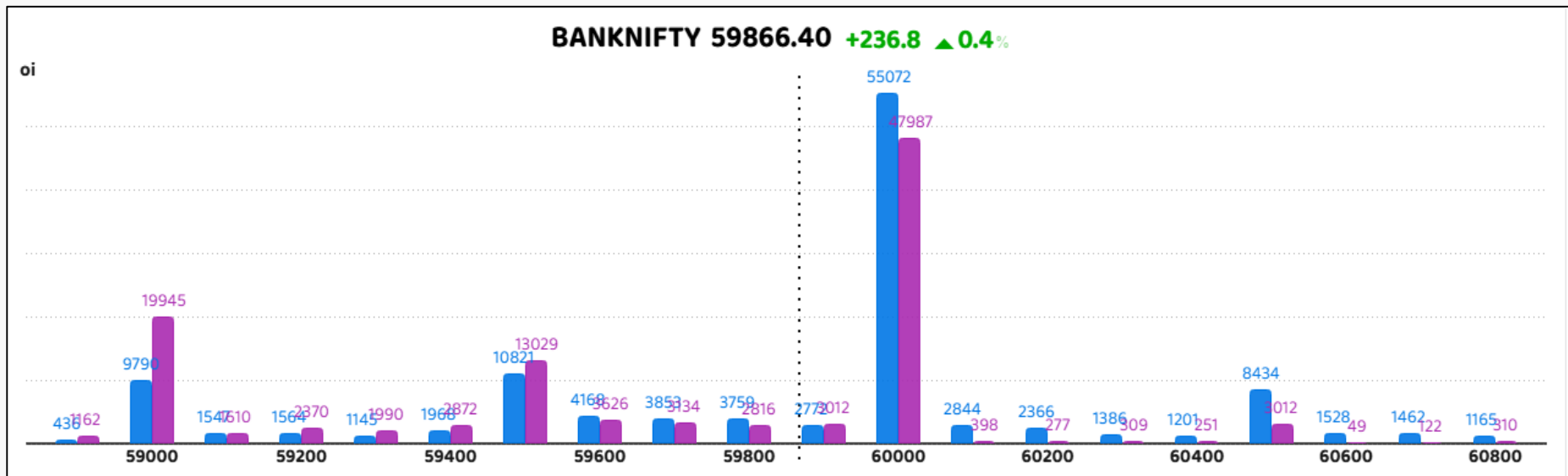
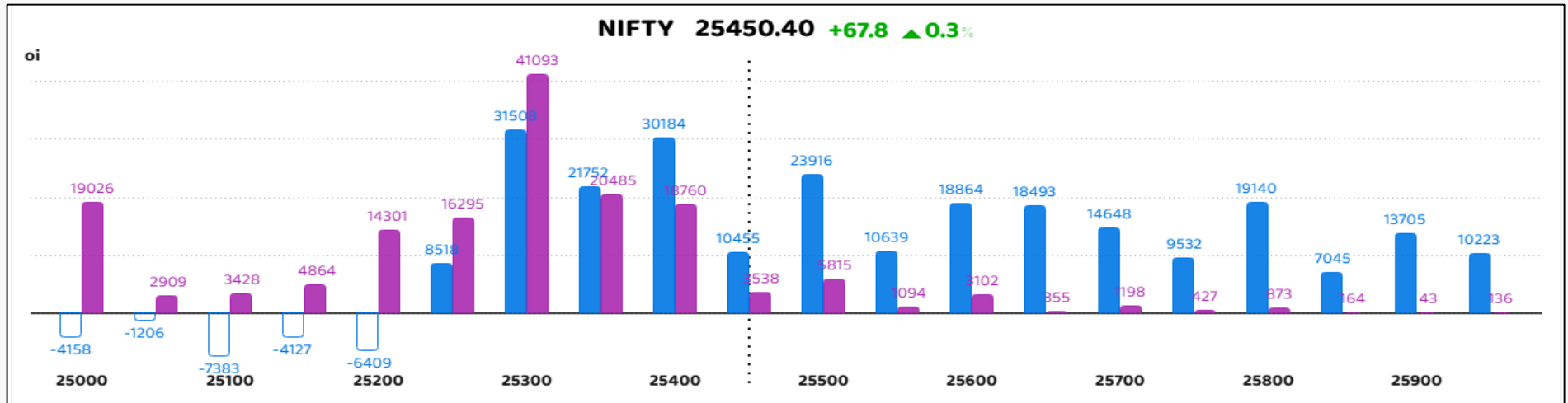


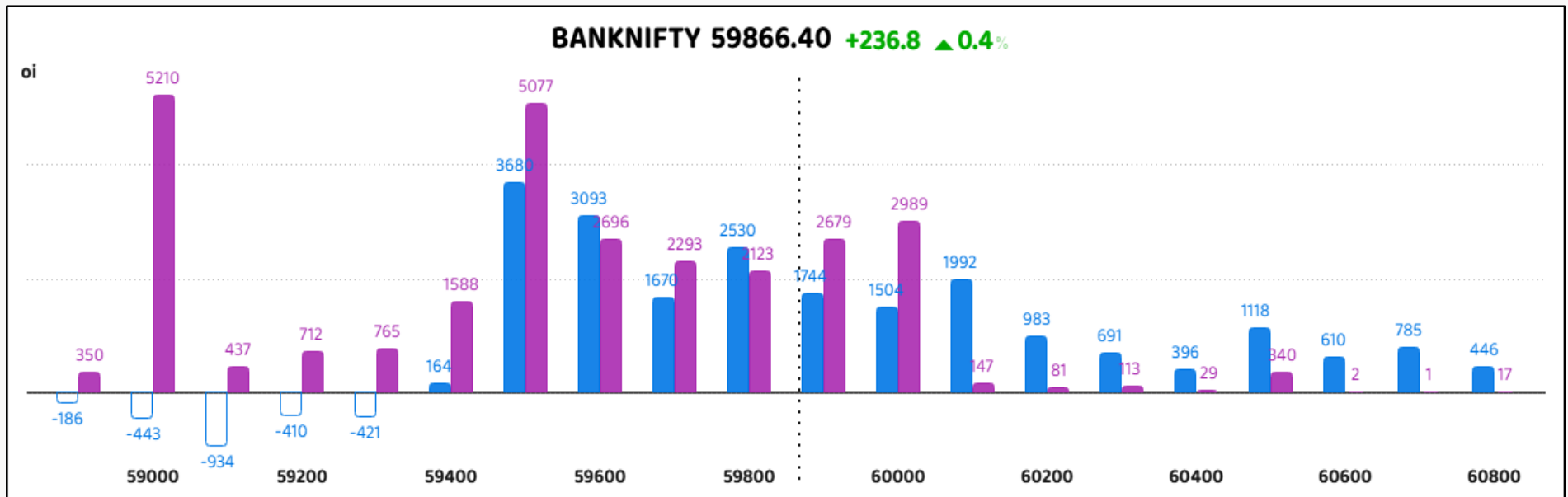
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 25,400 Call and the 25,300 Put



For the Bank Nifty, the biggest open interest changes were seen at the 59,500 Call & the 59,000 Put

## Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HINDUSTAN UNILEV	2,378.4	-0.9	23.7	25.3	0.8	93.6
DIXON TECHNOLOGI	10,279.0	0.9	47.0	53.1	9.2	86.0
BRITANNIA INDS	5,748.5	-2.3	27.9	30.3	15.9	82.9
MARUTI SUZUKI IN	14,877.0	-2.4	25.7	29.0	11.3	81.2
BAJAJ FINANCE LT	935.2	2.2	29.7	34.0	12.6	79.7

## Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
WIPRO LTD	237.4	1.1	21.6	93.6	19.1	3.3
HDFC LIFE INSURA	728.6	1.2	19.6	68.4	16.6	5.8
NTPC LTD	348.1	1.0	24.2	116.6	14.9	9.1
GAIL INDIA LTD	168.1	5.1	27.6	91.4	19.4	11.4
JSW STEEL LTD	1,218.7	-0.3	25.1	55.5	20.1	14.1

## Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
PIRAMAL PHARMA L	154.0	1.0	41.4	41.4	24.9	100.0
HINDUSTAN ZINC	708.2	-2.6	51.0	54.2	21.8	98.4
IIFL FINANCE LTD	544.6	4.4	56.4	89.2	6.4	98.4
BLUE STAR LTD	1,701.5	2.0	38.0	40.0	20.3	98.3
HINDUSTAN UNILEV	2,378.4	-0.9	23.7	25.3	0.8	98.2

## Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INFOSYS LTD	1,666.5	-1.0	14.4	60.8	2.3	3.6
TATA CONSULTANCY	3,200.1	1.3	17.1	36.2	1.6	5.5
ORACLE FINANCIAL	8,012.5	0.1	26.9	54.7	12.1	8.9
HCL TECH LTD	1,729.6	0.5	20.8	46.0	10.4	9.5
LTIMINDTREE LTD	6,015.5	1.3	24.7	43.3	6.8	10.8

### Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
SOLARINDS	13,917.2	9.0	27,362	4,792	5.7
MAZDOCK	2,505.7	7.3	38,762	7,542	5.1
GMRAIRPORT	93.9	1.3	7,365	1,537	4.8
BDL	1,570.0	6.8	27,596	6,149	4.5
RVNL	342.5	5.7	41,965	9,640	4.4

### Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
EICHERMOT	7,071.0	-1.3	25,007	32,066	1.3
BAJAJ-AUTO	9,433.6	-0.6	18,348	20,497	1.1
DALBHARAT	2,074.4	-1.6	1,068	1,192	1.1
SYNGENE	480.3	-1.9	7,195	7,208	1.0
DRREDDY	1,222.6	-1.4	6,620	6,612	1.0

## Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
BEL	453.0	8.9	33,658	65,741	51.2
GODREJPROP	1,550.3	2.1	13,690	27,021	50.7
HINDZINC	708.2	-2.6	26,979	54,022	49.9
JIOFIN	255.2	-0.3	23,132	48,465	47.7
LAURUSLABS	999.0	-0.1	8,210	18,211	45.1

## Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
SYNGENE	480.3	-1.9	4,308	5,772	74.6
LODHA	929.1	2.4	4,513	6,165	73.2
CONCOR	496.4	2.3	6,119	9,882	61.9
JIOFIN	255.2	-0.3	16,540	26,936	61.4
PPLPHARMA	154.0	1.0	2,675	4,363	61.3

**Call Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
BEL	453.0	8.9	2,74,822	2,44,424	100.0
TVSMOTOR	3,728.0	4.5	95,011	1,20,124	79.1
CGPOWER	582.0	9.7	66,704	1,03,433	64.5
ONGC	268.6	8.3	1,03,601	1,84,820	56.1
VEDL	737.1	4.5	1,45,549	2,77,327	52.5

**Put Volume Relative to Record High**

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
BEL	453.0	8.9	1,03,611	1,24,088	83.5
TVSMOTOR	3,728.0	4.5	36,795	62,403	59.0
OIL	490.5	9.4	12,465	26,440	47.1
CGPOWER	582.0	9.7	22,310	53,982	41.3
ONGC	268.6	8.3	35,811	89,436	40.0

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

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
SYNGENE	480.3	-1.9	6,454	5,093	1.3
TATACONSUM	1,131.8	-4.7	8,044	7,165	1.1
KALYANKJIL	368.0	-0.3	12,301	11,773	1.0
ASIANPAINT	2,511.8	-4.2	19,889	19,300	1.0
PAYTM	1,177.0	2.8	7,527	8,112	0.9

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

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
SYNGENE	480.3	-1.9	4,308	2,723	1.6
KALYANKJIL	368.0	-0.3	9,043	6,702	1.3
TATACONSUM	1,131.8	-4.7	6,267	5,166	1.2
PPLPHARMA	154.0	1.0	2,675	2,485	1.1
M&M	3,449.2	1.6	11,708	11,052	1.1

### Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
TVSMOTOR	3,728.0	4.5	95,011	18,798	5.1
TATACONSUM	1,131.8	-4.7	34,870	9,542	3.7
BEL	453.0	8.9	2,74,822	76,922	3.6
OIL	490.5	9.4	41,852	12,011	3.5
ABB	5,043.6	7.1	38,546	11,392	3.4

### Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
TATACONSUM	1,131.8	-4.7	27,152	3,594	7.6
MARICO	736.6	-1.2	11,166	2,127	5.2
SYNGENE	480.3	-1.9	7,208	1,444	5.0
TVSMOTOR	3,728.0	4.5	36,795	9,051	4.1
ASIANPAINT	2,511.8	-4.2	71,808	18,967	3.8

## 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	2200	751179	10.3%	1995	2200	743145	10.3%	JIOFIN	300	11390450	17.6%	255	250	4260550	-2.0%
ADANIPTS	1500	767600	8.5%	1382	1400	640775	1.3%	JSWSTEEL	1300	613575	6.7%	1219	1140	408375	-6.5%
APOLLOHOSP	7000	97000	1.8%	6878	6800	100625	-1.1%	KOTAKBANK	450	2782000	9.1%	412	400	2196000	-3.0%
ASIANPAINT	2800	695250	11.5%	2512	2500	339000	-0.5%	LT	4000	771400	5.4%	3794	3800	538650	0.2%
AXISBANK	1300	1400000	-1.5%	1320	1250	1490000	-5.3%	M&M	3600	278000	4.4%	3449	3400	337400	-1.4%
BAJAJ-AUTO	10000	70800	6.0%	9434	8800	61200	-6.7%	MARUTI	16000	254250	7.5%	14877	15000	137500	0.8%
BAJAJFINSV	2000	490500	3.1%	1940	1820	284500	-6.2%	MAXHEALTH	1000	352275	4.3%	959	1000	246225	4.3%
BAJFINANCE	950	1633500	1.6%	935	900	1237500	-3.8%	NESTLEIND	1300	417000	0.6%	1292	1300	308000	0.6%
BEL	460	7020975	1.5%	453	420	4314900	-7.3%	NTPC	350	3384000	0.6%	348	380	2242500	9.2%
BHARTIARTL	2000	928150	2.2%	1958	2000	569050	2.2%	ONGC	270	3978000	0.5%	269	230	2801250	-14.4%
CIPLA	1500	572625	12.9%	1328	1300	537375	-2.1%	POWERGRID	260	3342100	0.1%	260	240	2747400	-7.6%
COALINDIA	460	3824550	3.6%	444	420	2597400	-5.4%	RELIANCE	1500	5561000	7.4%	1397	1400	3086500	0.2%
DRREDDY	1300	530625	6.3%	1223	1200	348125	-1.8%	SBILIFE	2100	337125	2.3%	2053	2060	334500	0.3%
EICHERMOT	8000	147500	13.1%	7071	6800	160800	-3.8%	SBIN	1100	2226000	3.4%	1064	1020	2418000	-4.1%
ETERNAL	300	11729725	12.7%	266	240	4835450	-9.9%	SHRIRAMFIN	1000	1619475	-1.8%	1019	1000	740025	-1.8%
GRASIM	2900	108250	2.1%	2839	2800	172500	-1.4%	SUNPHARMA	1680	798000	4.3%	1611	1550	345450	-3.8%
HCLTECH	1760	367850	1.8%	1730	1620	286300	-6.3%	TATACONSUM	1200	893750	6.0%	1132	1020	699050	-9.9%
HDFCBANK	1000	4961550	7.2%	933	1000	2495900	7.2%	TMPV	400	2231200	17.5%	340	300	3228800	-11.9%
HDFCLIFE	740	1426700	1.6%	729	720	583000	-1.2%	TATASTEEL	200	11979000	3.2%	194	190	8195000	-2.0%
HINDALCO	1000	1166900	0.2%	998	900	882000	-9.8%	TCS	3200	509425	0.0%	3200	3000	402325	-6.3%
HINDUNILVR	2500	370200	5.1%	2378	2340	466200	-1.6%	TECHM	1960	579600	11.2%	1763	1620	379800	-8.1%
ICICIBANK	1400	2544500	2.4%	1368	1400	3000200	2.4%	TITAN	4200	400050	5.7%	3975	4000	533400	0.6%
INDIGO	4800	333300	1.1%	4749	4700	305400	-1.0%	TRENT	4000	278200	3.5%	3864	3800	202500	-1.7%
INFY	1700	1296400	2.0%	1667	1600	578400	-4.0%	ULTRACEMCO	13000	57650	1.8%	12767	12000	46300	-6.0%
ITC	350	12168000	9.0%	321	300	5843200	-6.6%	WIPRO	254	4578000	7.0%	237	234	3984000	-1.4%

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

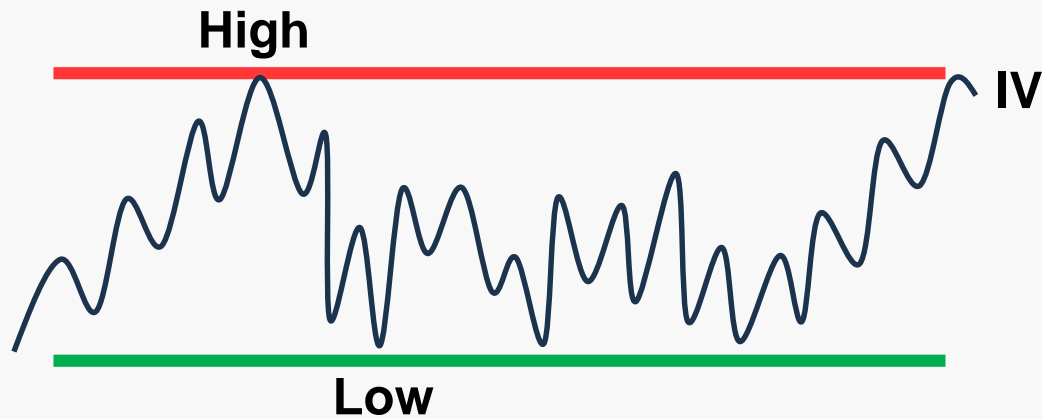


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

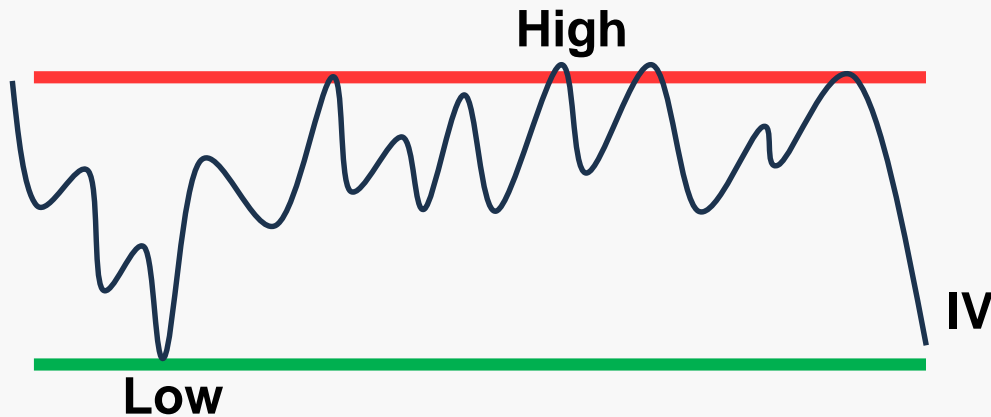


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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Registered Office Address – Axis Securities Limited, Unit No.002, Building- A, Agastya Corporate Park, Piramal Realty, Kamani Junction, Kurla (W), Mumbai – 400070.

Administrative office address: Axis Securities Limited, Aurum Q Parc, Q2 Building, Unit No. 1001, 10th Floor, Level – 6, Plot No. 4/1 TTC, Thane – Belapur Road, Ghansoli, Navi Mumbai, Pin Code – 400710.

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Sr. No	Name	Designation	E-mail
1	Rajesh Palviya	SVP Research (Head Technical & Derivatives)	rajesh.palviya@axissecurities.in
2	Hemang Gor	Derivative Analyst	hemang.gor@axissecurities.in
3	Rahil Vora	Derivative Analyst	rahil.vora@axissecurities.in