



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	26,071	0.5%▲
Open Interest (OI)	1,96,53,875	2.8%▼
Change in OI (abs)	1,96,53,875	5,64,260▼
Premium / Discount (Abs)	18	20▼
Inference	Short Covering	

Bank Nifty Futures

	Value	Change
Most recent settlement	59,227	0.4%▲
Open interest (OI)	21,00,905	2.9%▲
Change in OI (abs)	21,00,905	59,425▲
Premium / Discount (Abs)	11	64▼
Inference	Long Build Up	

Volatility Insights

	Value	Change
India VIX Index	11.97	0.13▼
Nifty ATM IV (%)	10.73	0.3▼
Bank Nifty ATM IV (%)	11.55	0.4▼
PCR (Nifty)	1.29	0.27▲
PCR (Bank Nifty)	1.23	0.07▲

The FII Long Ratio in Index Futures **Jump** to 12.2 %, **Up** from 12 % in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
TECHM	2,33,08,800	11.4%	1438.6	1.0%
TITAGARH	73,44,250	9.1%	874.05	0.2%
BLUESTARCO	19,81,525	7.7%	1793.6	0.7%
SOLARINDS	9,80,950	6.5%	13804	0.1%
DALBHARAT	27,57,300	5.5%	2022.6	1.6%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
PGEL	1,25,51,900	12.1%	581.35	-0.6%
SAMMAANCAP	12,24,72,600	11.0%	160.13	-12.4%
TMPV	9,61,37,600	9.6%	361.7	-2.6%
IREDA	4,94,07,450	6.2%	147.36	-0.6%
SRF	42,78,200	6.1%	2794.7	-1.0%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
MAXHEALTH	1,73,33,400	-7.6%	1163.6	4.0%
NAUKRI	85,80,750	-4.9%	1359.5	2.8%
POWERGRID	8,08,16,500	-4.6%	275	0.2%
EICHERMOT	31,08,450	-4.4%	6889	1.1%
POLICYBZR	87,06,600	-3.2%	1853	2.7%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
BHEL	6,16,27,125	-3.2%	289	-0.1%
IGL	1,32,71,500	-2.6%	206.78	-1.2%
PIDILITIND	77,68,000	-2.5%	1475.8	-1.0%
GAIL	8,09,86,500	-2.2%	183.96	-0.3%
BIOCON	5,14,65,000	-2.1%	410.1	-3.0%

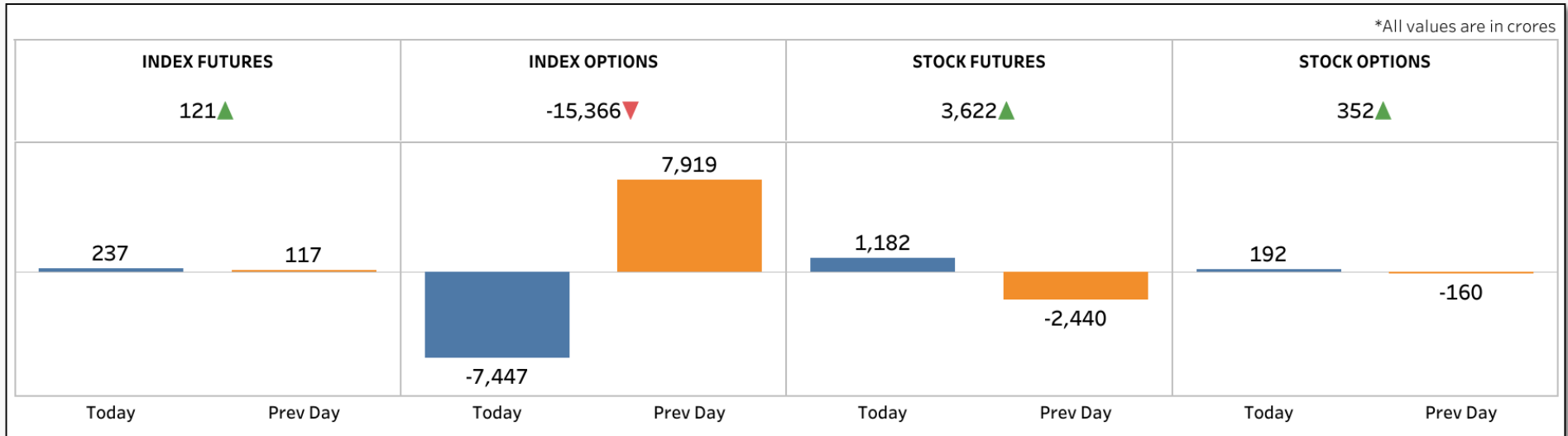
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

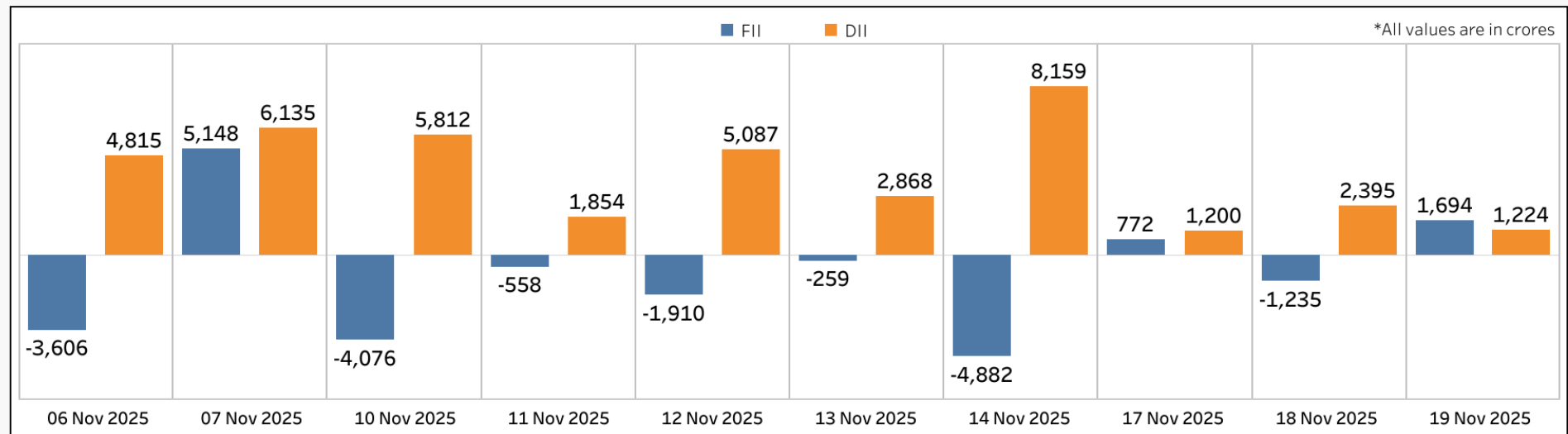
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
81,587 ▲	722 ▲	-73,822 ▼	49,337 ▲	0	-312 ▼	3,964 ▲	8,468 ▲
36,340	1,218 496		12,870				13,553
-45,247		-161	-36,467	0 0	92	0	5,085
		-73,983			-220	-3,964	
Net O/S 22,528 Today Prev Day	Net O/S -167,571 Today Prev Day	Net O/S 156,818 Today Prev Day	Net O/S 1,274,014 Today Prev Day	Net O/S 2,381 Today Prev Day	Net O/S 53,552 Today Prev Day	Net O/S 20,463 Today Prev Day	Net O/S -4,448,918 Today Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-206,206 ▼	-6,479 ▼	174,349 ▲	-51,844 ▼	124,619 ▲	6,069 ▲	-104,492 ▼	-5,961 ▼
66,130	443	105,135	51,606	103,736	5,038	73,339	
-140,076	-6,036	-69,214	-238	-20,883	-1,031	-31,153	-26,185 -20,224
Net O/S -112,918 Today Prev Day	Net O/S 100,335 Today Prev Day	Net O/S -248,251 Today Prev Day	Net O/S 2,690,228 Today Prev Day	Net O/S 88,009 Today Prev Day	Net O/S 13,684 Today Prev Day	Net O/S 70,969 Today Prev Day	Net O/S 484,676 Today Prev Day

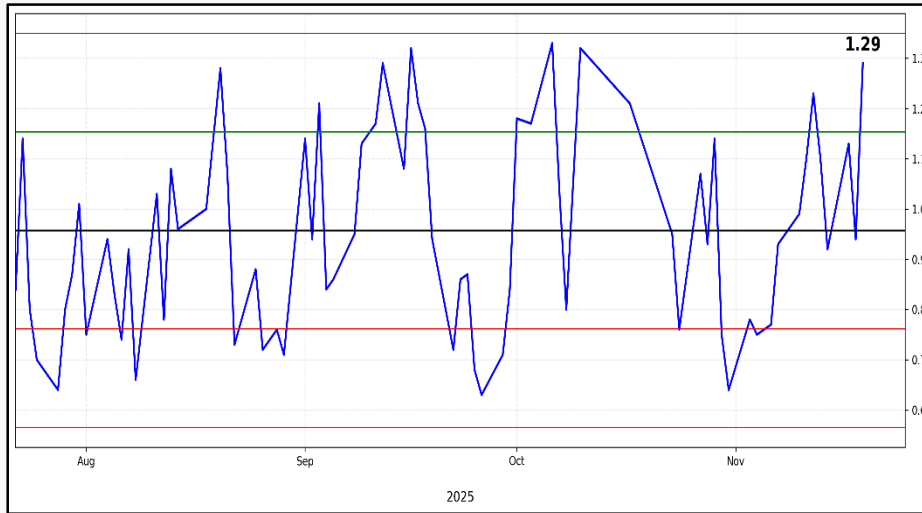
Daily Net Open Interest Change



DII and FII Daily Cash Market Flows



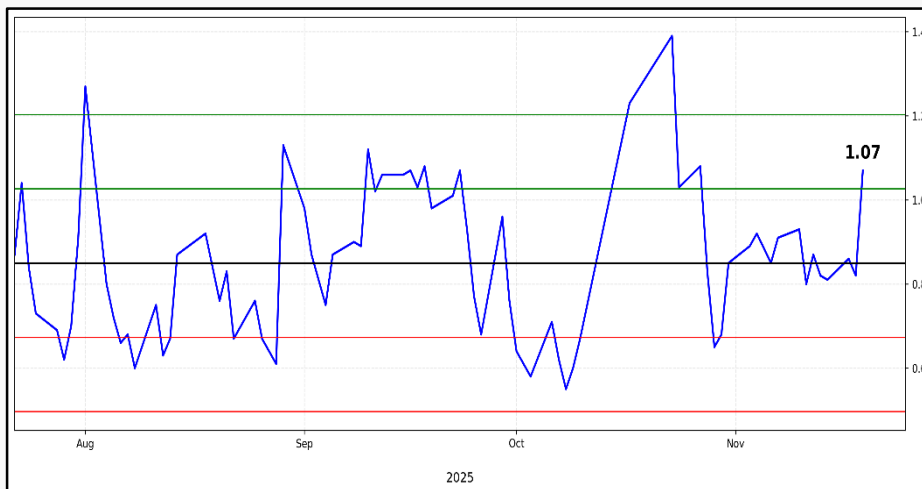
Nifty



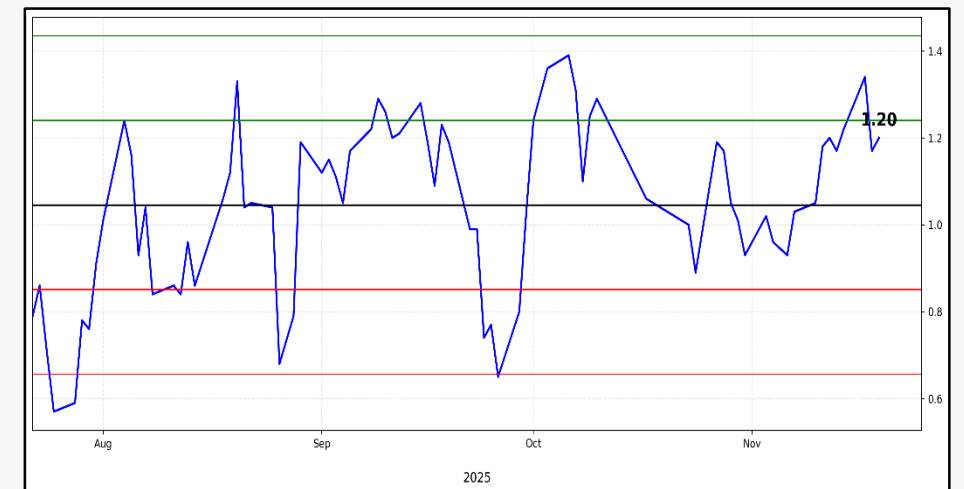
Bank Nifty



Fin Nifty

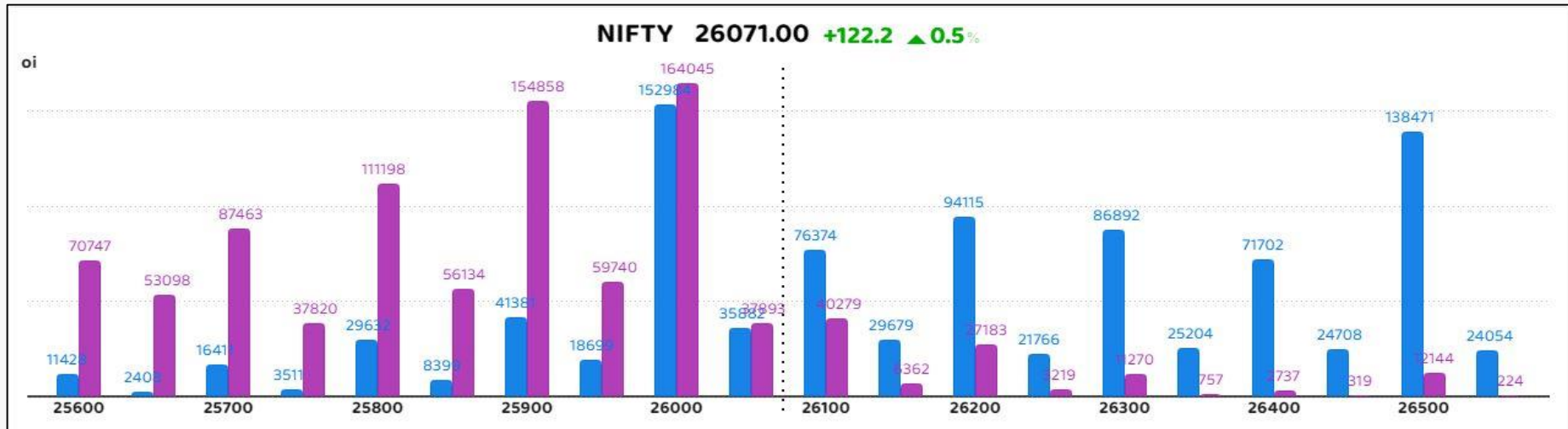


Midcap Select Nifty

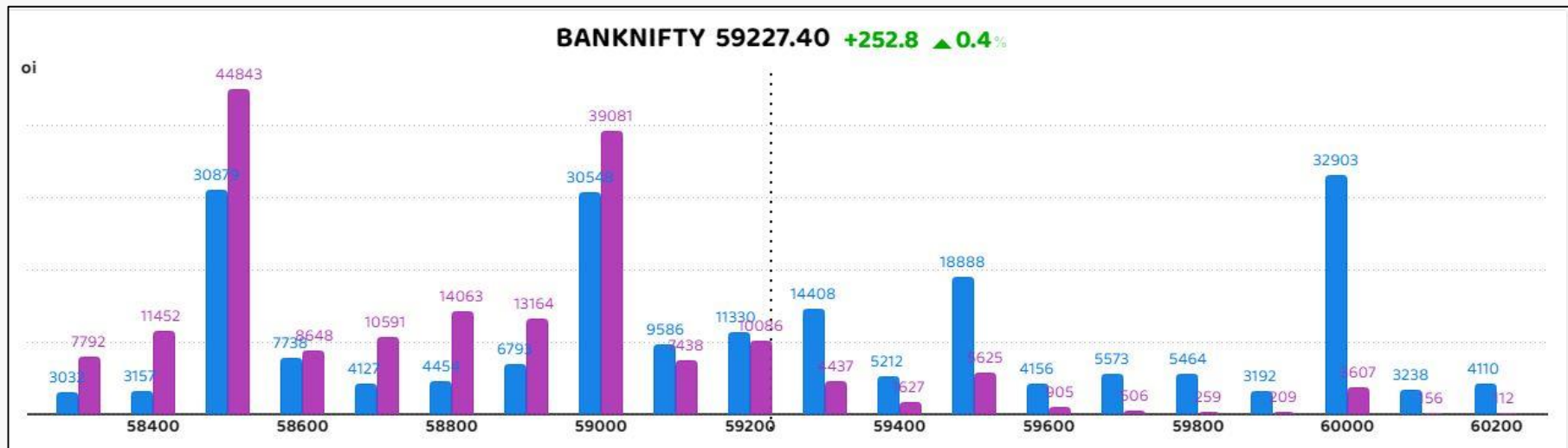


Positioning Stack by Strike (Nifty Current Week Expiry & BankNifty Monthly Expiry)

Call  Put 

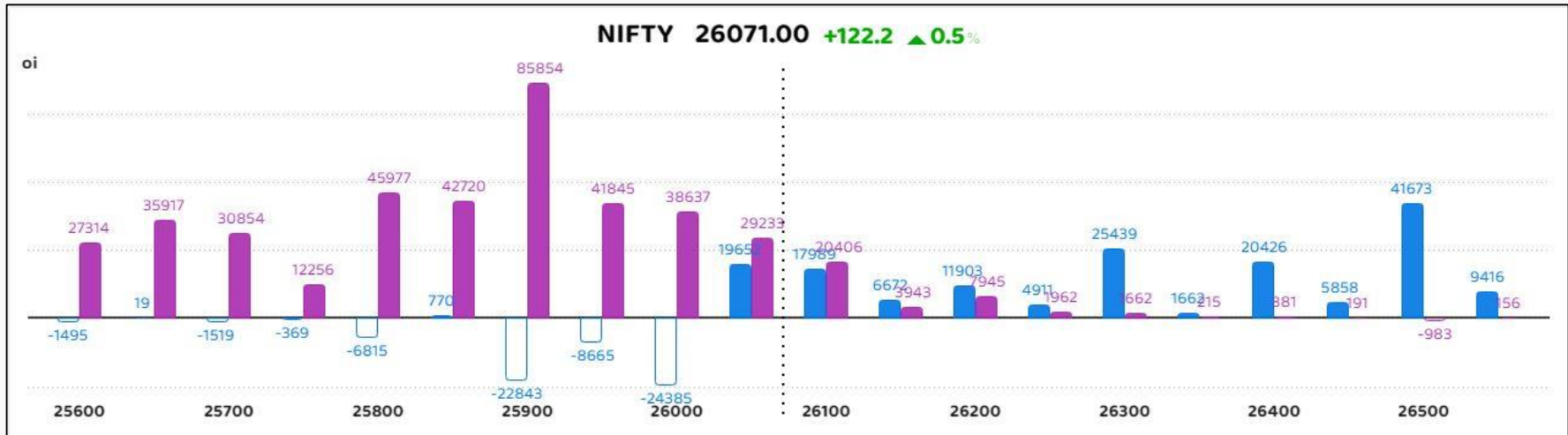


For Nifty, the 26,000 Call and 26,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 60,000 Call and the 58,500 Put saw the most amount of open interest.

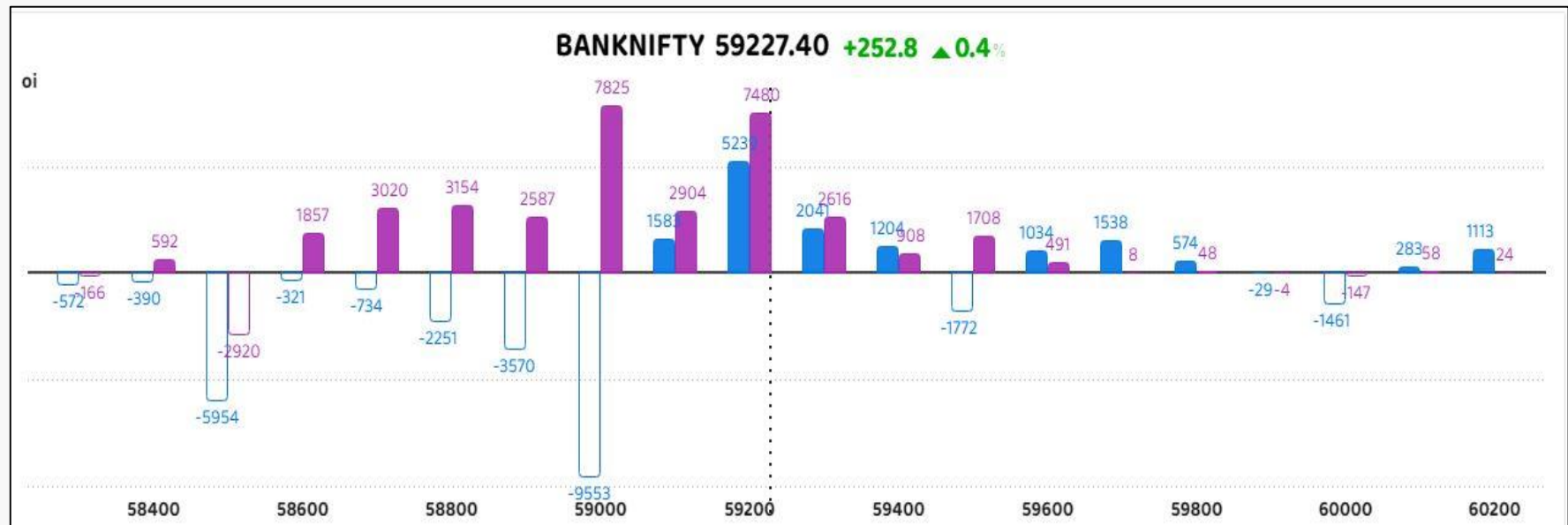


Open Interest Change (Nifty Current Week Expiry & BankNifty Monthly Expiry)

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 26,500 Call and the 25,900 Put



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

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
BOSCH LTD	36870.0	-0.5	22.9	36.2	2.1	60.9
VOLTAS LTD	1401.8	1.3	35.1	46.9	16.9	60.7
HDFC BANK LTD	994.6	0.2	16.1	28.0	1.5	55.2
SHREE CEMENT	26510.0	0.3	21.0	31.9	7.9	54.9
ICICI LOMBARD GE	2041.7	0.8	22.2	38.2	3.2	54.3

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HINDUSTAN UNILEV	2441.6	1.6	11.5	25.8	11.5	0.0
ABB INDIA LTD	5083.0	0.1	21.9	47.7	21.9	0.0
POWER FINANCE	373.7	-0.3	22.8	51.5	22.8	0.0
GAIL INDIA LTD	184.1	-0.1	21.9	91.4	21.9	0.0
GODREJ PROPERTIE	2130.4	-1.0	28.1	53.2	28.1	0.0

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
PERSISTENT SYS	6316.0	3.9	37.9	59.3	25.5	76.4
VOLTAS LTD	1401.8	1.3	35.1	46.9	16.9	68.8
RAIL VIKAS NIGAM	320.15	-0.3	38.6	50.3	22.9	55.3
STEEL AUTHORITY	139.99	0.8	33.7	91.3	8.4	48.0
BOSCH LTD	36870	-0.5	22.9	36.2	2.1	37.7

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
HINDUSTAN UNILEV	2441.6	1.6	11.5	25.8	11.5	0.0
POWER FINANCE	373.7	-0.3	22.8	51.5	22.8	0.0
ABB INDIA LTD	5083.0	0.1	21.9	47.7	21.9	0.0
GAIL INDIA LTD	184.1	-0.1	21.9	91.4	21.9	0.0
GODREJ PROPERTIE	2130.4	-1.0	28.1	53.2	28.1	0.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
SOLARINDS	13,809.0	0.3	52,462	8,366	6.3
PRESTIGE	1,717.3	-0.3	10,906	2,040	5.3
ALKEM	5,724.0	0.2	6,143	1,231	5.0
CROMPTON	274.3	0.4	8,355	1,726	4.8
NUVAMA	7,344.0	0.3	5,007	1,068	4.7

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
SAMMAANCAP	159.6	-12.7	69,465	66,635	1.0
PETRONET	274.2	-0.2	2,003	1,835	0.9
MUTHOOTFIN	3,701.7	0.2	19,553	17,474	0.9
ASIANPAINT	2,893.7	-0.4	50,280	43,181	0.9
BHARTIARTL	2,159.8	0.5	65,561	50,973	0.8

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
CROMPTON	274.3	0.4	15,585	15,559	100.0
GMRAIRPORT	102.9	-0.8	22,759	21,207	100.0
INOXWIND	139.7	-0.9	15,260	14,936	100.0
MANKIND	2,223.1	-0.2	6,802	6,769	100.0
NMDC	75.3	-0.6	22,623	22,303	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
CONCOR	517.6	-1.0	8,638	8,275	100.0
INOXWIND	139.7	-0.9	5,785	5,744	100.0
MAXHEALTH	1,164.4	4.3	7,116	6,685	100.0
PFC	373.6	-0.3	24,183	23,668	100.0
SAMMAANCAP	159.6	-12.7	10,928	9,967	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
MAXHEALTH	1,164.4	4.3	93,951	84,330	100.0
SAMMAANCAP	159.6	-12.7	69,465	71,171	97.6
TMPV	360.8	-2.8	2,20,306	2,87,427	76.6
KAYNES	5,974.0	1.4	1,15,272	1,52,734	75.5
360ONE	1,119.2	3.8	14,790	20,073	73.7

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
MAXHEALTH	1,164.4	4.3	40,645	28,774	100.0
SAMMAANCAP	159.6	-12.7	66,635	39,862	100.0
TMPV	360.8	-2.8	67,359	98,498	68.4
BIOCON	410.1	-2.7	19,788	36,345	54.4
ADANIENSOL	1,006.2	-2.0	14,078	30,956	45.5

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
GLENMARK	1,840.8	-0.1	26,036	8,579	3.0
SAMMAANCAP	159.6	-12.7	17,651	6,662	2.6
SOLARINDS	13,809.0	0.3	11,578	4,728	2.4
TMPV	360.8	-2.8	1,07,899	44,871	2.4
INOXWIND	139.7	-0.9	15,260	6,708	2.3

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
GMRAIRPORT	102.9	-0.8	14,348	6,170	2.3
HEROMOTOCO	5,876.5	1.3	24,206	10,602	2.3
GLENMARK	1,840.8	-0.1	11,570	5,214	2.2
MARICO	748.2	-1.1	4,923	2,356	2.1
ASIANPAINT	2,893.7	-0.4	42,779	20,613	2.1

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
SAMMAANCAP	159.6	-12.7	69,465	8,526	8.1
PERSISTENT	6,316.0	3.9	1,61,167	21,288	7.6
HCLTECH	1,662.6	4.2	1,93,741	28,146	6.9
MAXHEALTH	1,164.4	4.3	93,951	15,301	6.1
SONACOMS	507.0	3.8	48,005	8,090	5.9

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SAMMAANCAP	159.6	-12.7	66,635	3,291	20.2
MAXHEALTH	1,164.4	4.3	40,645	6,140	6.6
HCLTECH	1,662.6	4.2	78,356	15,182	5.2
PERSISTENT	6,316.0	3.9	60,314	12,337	4.9
LTIM	5,972.0	3.8	24,345	6,372	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	2520.65	1488144	3.6%	2433	2423.7	900117	-0.4%	JIOFIN	320	11338750	5.1%	304	310	5623550	1.8%
ADANIPTS	1500	2286650	1.1%	1484	1500	895850	1.1%	JSWSTEEL	1220	1142100	4.7%	1165	1150	630450	-1.3%
APOLLOHOSP	7500	284000	0.5%	7459	7000	98000	-6.2%	KOTAKBANK	2200	2118400	4.5%	2106	2100	1235600	-0.3%
ASIANPAINT	3000	1727500	3.7%	2894	2800	1407000	-3.2%	LT	4100	985775	2.0%	4020	4000	400925	-0.5%
AXISBANK	1300	2884375	2.3%	1270	1260	1356250	-0.8%	M&M	3800	697200	2.1%	3723	3600	485400	-3.3%
BAJAJ-AUTO	9000	352950	1.3%	8885	9000	134325	1.3%	MARUTI	16000	405900	1.5%	15768	15500	140950	-1.7%
BAJAJFINSV	2100	852000	2.4%	2050	1960	475500	-4.4%	MAXHEALTH	1200	897225	3.1%	1164	1120	513450	-3.8%
BAJFINANCE	1100	4138500	9.4%	1006	1000	1863000	-0.6%	NESTLEIND	1300	1691000	1.6%	1279	1300	188500	1.6%
BEL	430	13499025	1.6%	423	420	4617000	-0.8%	NTPC	335	7671000	2.6%	327	300	2842500	-8.1%
BHARTIARTL	2100	3096525	-2.8%	2160	2100	1686250	-2.8%	ONGC	254	15678000	2.0%	249	234	2409750	-6.0%
CIPLA	1600	1615125	4.8%	1527	1500	488250	-1.8%	POWERGRID	290	5707600	5.4%	275	270	2291400	-1.9%
COALINDIA	389.75	4504950	2.8%	379	439.75	2095200	16.0%	RELIANCE	1520	5087500	0.1%	1519	1500	3576000	-1.2%
DRREDDY	1300	2105000	4.0%	1250	1200	631875	-4.0%	SBILIFE	2020	2480625	0.8%	2005	2000	564375	-0.2%
EICHERMOT	7000	314825	1.5%	6897	6200	205275	-10.1%	SBIN	970	4740000	-1.3%	983	960	4048500	-2.3%
ETERNAL	330	11897050	7.6%	307	300	7444750	-2.2%	SHRIRAMFIN	820	1972575	0.2%	818	800	1895850	-2.2%
GRASIM	3000	1149250	9.3%	2745	2800	251500	2.0%	SUNPHARMA	1740	837200	-2.5%	1784	1760	411600	-1.4%
HCLTECH	1720	824950	3.5%	1663	1600	960750	-3.8%	TATACONSUM	1200	862400	3.3%	1162	1050	236500	-9.6%
HDFCBANK	1000	7395850	0.5%	995	950	2542100	-4.5%	TMPV	380	11520800	5.3%	361	370	2953600	2.5%
HDFCLIFE	820	1799600	7.7%	761	740	1191300	-2.8%	TATASTEEL	185	99478500	6.8%	173	175	12996500	1.0%
HINDALCO	800	2372300	1.1%	791	800	1739500	1.1%	TCS	3200	1420475	1.7%	3148	3000	760725	-4.7%
HINDUNILVR	2500	2014200	2.4%	2442	2500	583500	2.4%	TECHM	1500	1132200	4.6%	1434	1440	409200	0.4%
ICICIBANK	1400	5727400	1.2%	1383	1400	2289000	1.2%	TITAN	4000	432425	1.7%	3933	3700	379225	-5.9%
INDIGO	5900	553650	2.5%	5759	5500	160050	-4.5%	TRENT	4800	859100	10.1%	4359	4400	362000	0.9%
INFY	1600	3408400	3.8%	1541	1500	2396800	-2.7%	ULTRACEMCO	12000	215650	2.9%	11666	11800	67150	1.1%
ITC	420	9787200	4.1%	404	410	2908800	1.6%	WIPRO	250	11661000	1.6%	246	240	4833000	-2.5%

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

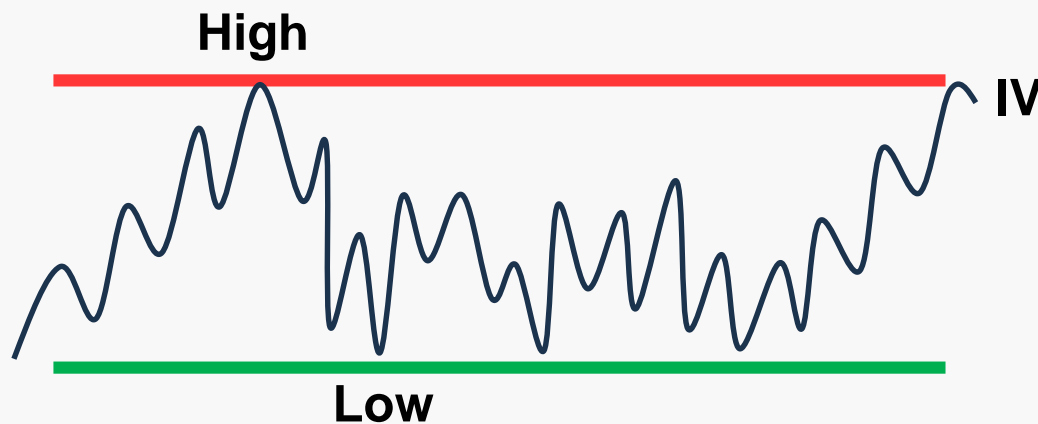
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

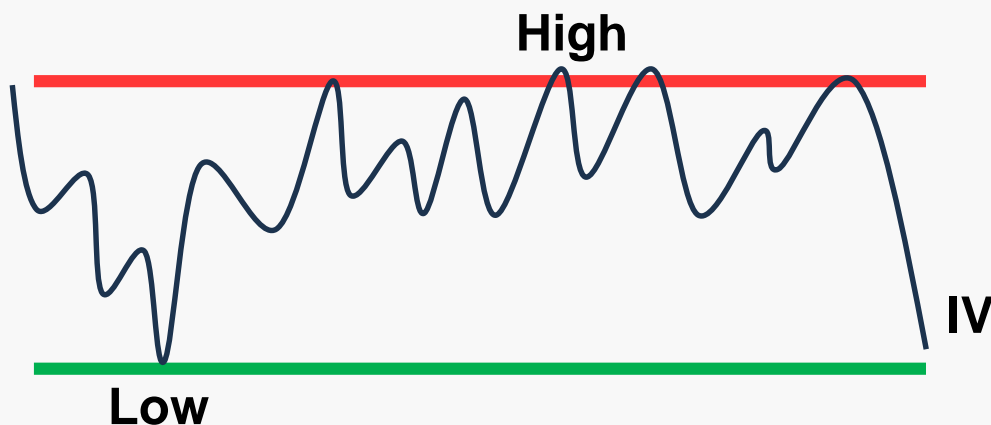
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

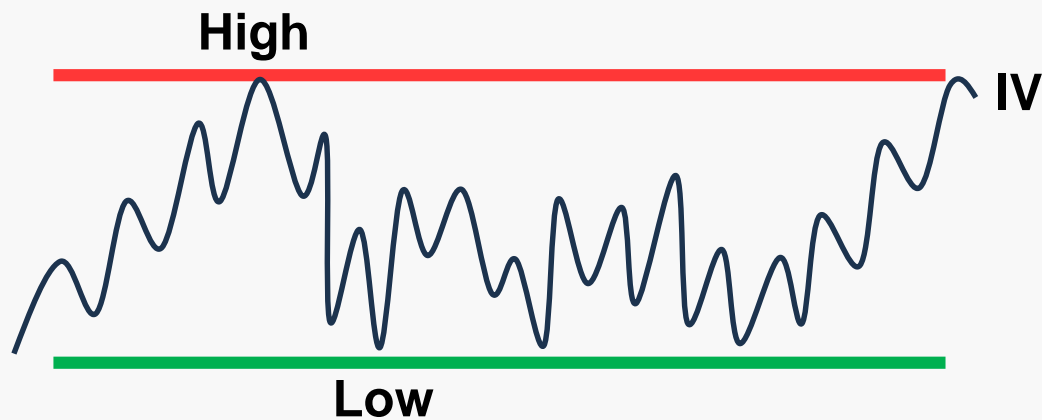


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

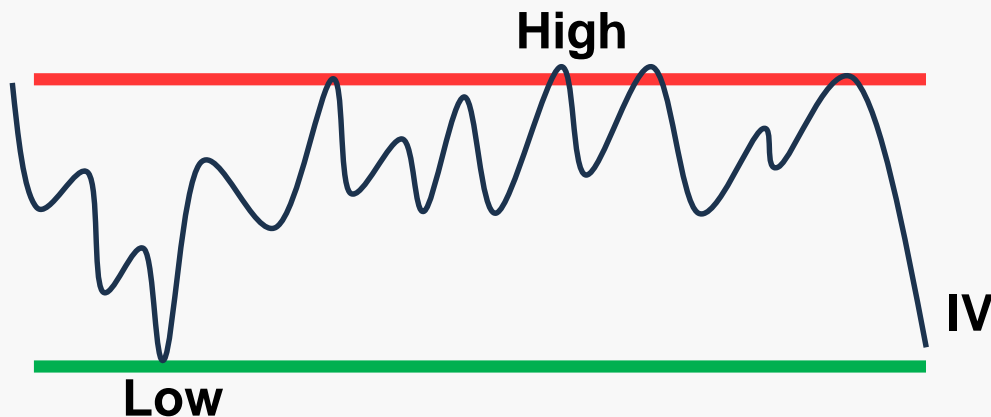


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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