



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,515	2.7% ▼
Open Interest (OI)	2,32,87,550	3.5% ▲
Change in OI (abs)	2,32,87,550	7,78,180 ▲
Premium / Discount (Abs)	2	24 ▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	51,496	3.8% ▼
Open interest (OI)	33,03,120	3.2% ▲
Change in OI (abs)	33,03,120	1,01,400 ▲
Premium / Discount (Abs)	58	69 ▼
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	26.73	3.92 ▲
Nifty ATM IV (%)	34.24	10.92 ▲
Bank Nifty ATM IV (%)	38.73	11.76 ▲
PCR (Nifty)	0.84	0.09 ▼
PCR (Bank Nifty)	0.74	0.06 ▼

The FII Long Ratio in Index Futures **Jump** to **14.7%**, **Up** from **14.4 %** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
INFY	8,24,16,000	3.8%	1247.4	0.1%
PREMIERENE	1,38,20,700	3.7%	867.35	2.7%
HCLTECH	3,42,44,350	3.2%	1348.3	1.4%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
OBEROIRLTY	99,72,550	15.2%	1409.5	-2.4%
PGEL	1,75,85,450	14.3%	469.35	-6.7%
MUTHOOTFIN	36,97,375	11.4%	3096	-6.1%
BPCL	6,67,84,625	9.9%	271.1	-6.1%
JSWENERGY	3,00,23,000	7.6%	481.4	-5.1%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
POWERGRID	7,92,56,600	-2.5%	301	0.9%
COFORGE	2,47,85,625	-2.2%	1098.1	0.8%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
GODREJPROP	80,28,625	-6.1%	1494.8	-3.6%
POLYCAB	20,24,500	-5.2%	6787.5	-5.2%
DRREDDY	1,26,13,125	-3.9%	1252	-3.5%
MANAPPURAM	5,70,90,000	-3.6%	252.45	-2.8%
ANGELONE	3,92,17,500	-3.6%	218.68	-4.7%

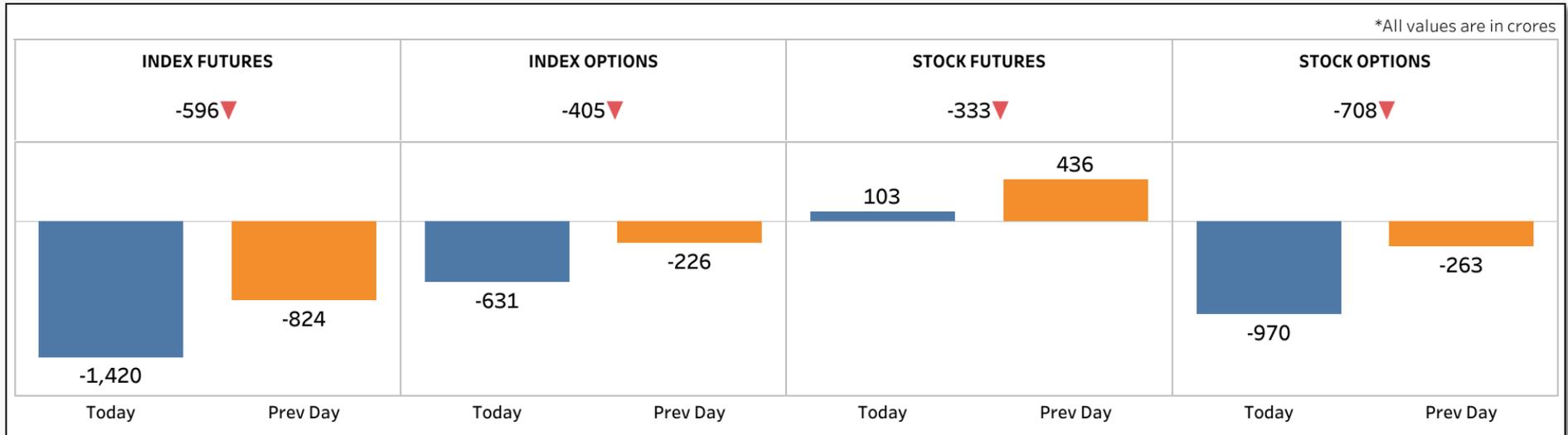
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

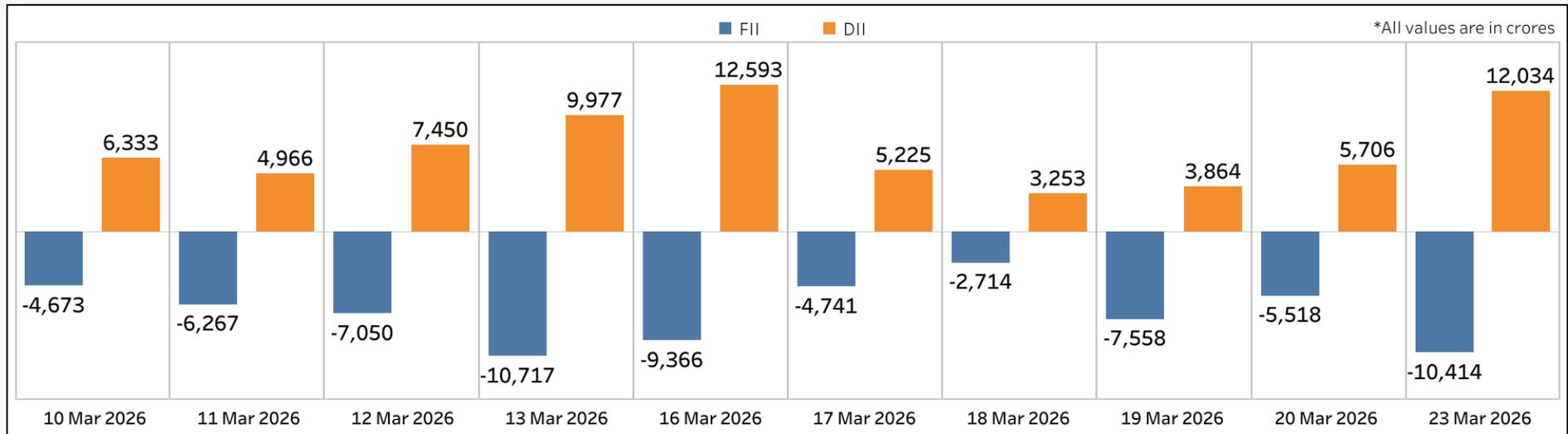
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
18,061 ▲	-3,897 ▼	-26,081 ▼	4,350 ▲	-165 ▼	14,224 ▲	-4,596 ▼	50,177 ▲
		25,655	385	55	12,161	604	25,610
-6,655	-9,453	-426	-3,965	220	-2,063	5,200	-24,567
-24,716	-5,556						
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-254,875	-243,961	439,270	1,002,693	2,468	61,812	32,004	-3,961,631
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day
Clients				Pro			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
34,611 ▲	5,204 ▲	75,330 ▲	-79,757 ▼	-52,508 ▼	-15,531 ▼	-44,655 ▼	25,230 ▲
49,552		31,268	32,127	9,556	10,969	13,208	21,635
14,941	1,854	-44,062	-47,630	-42,952	-4,562	-31,447	-3,595
	-3,350						
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
397,106	149,800	-529,766	2,479,970	-144,698	32,349	58,492	478,968
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day

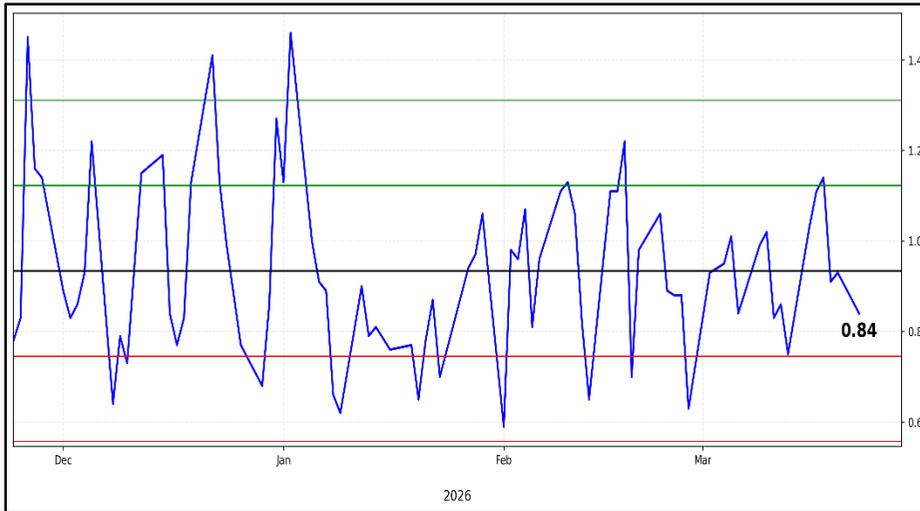
Daily Net Open Interest Change



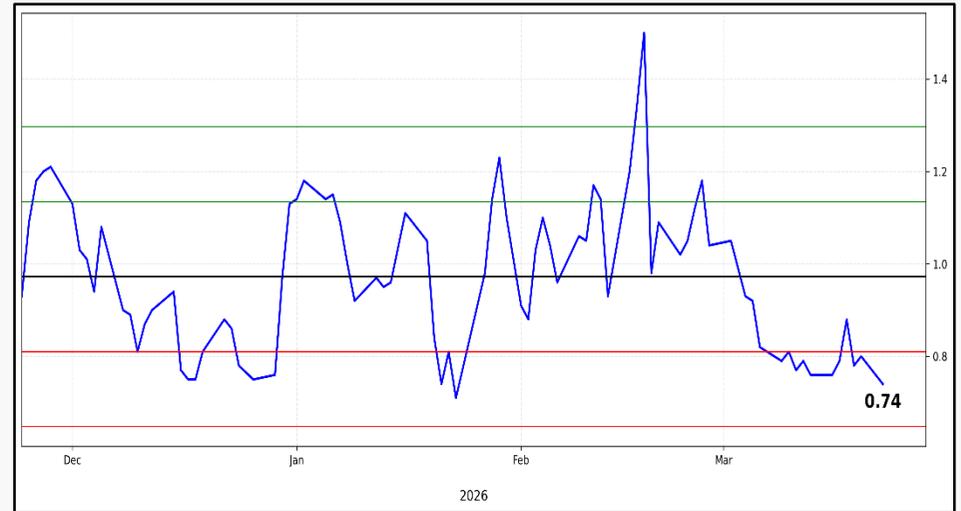
DII and FII Daily Cash Market Flows



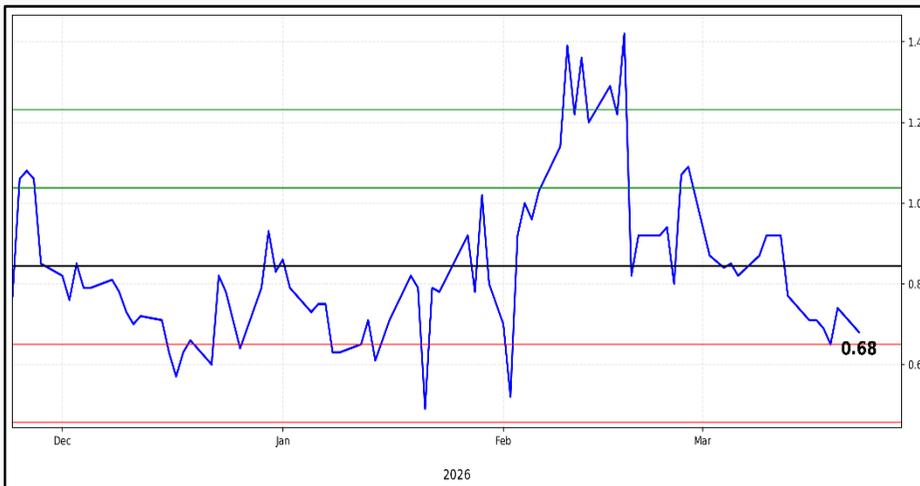
Nifty



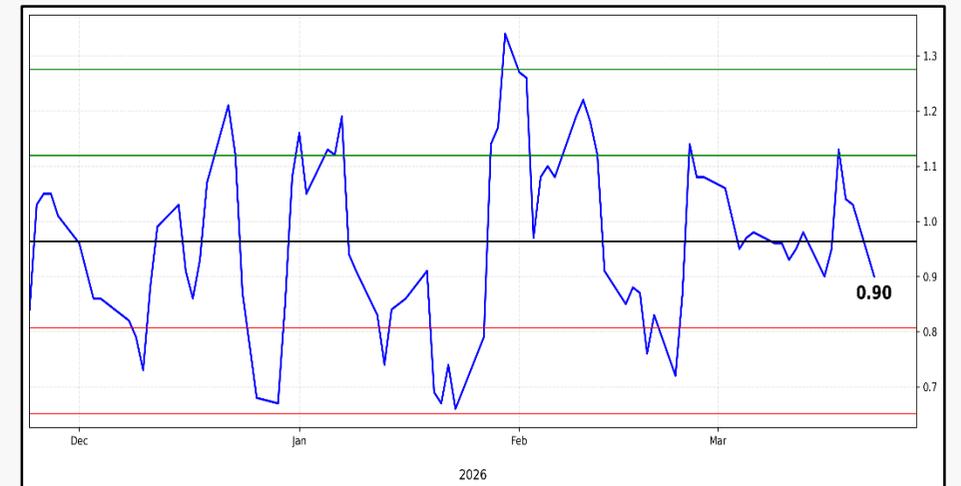
Bank Nifty



Fin Nifty



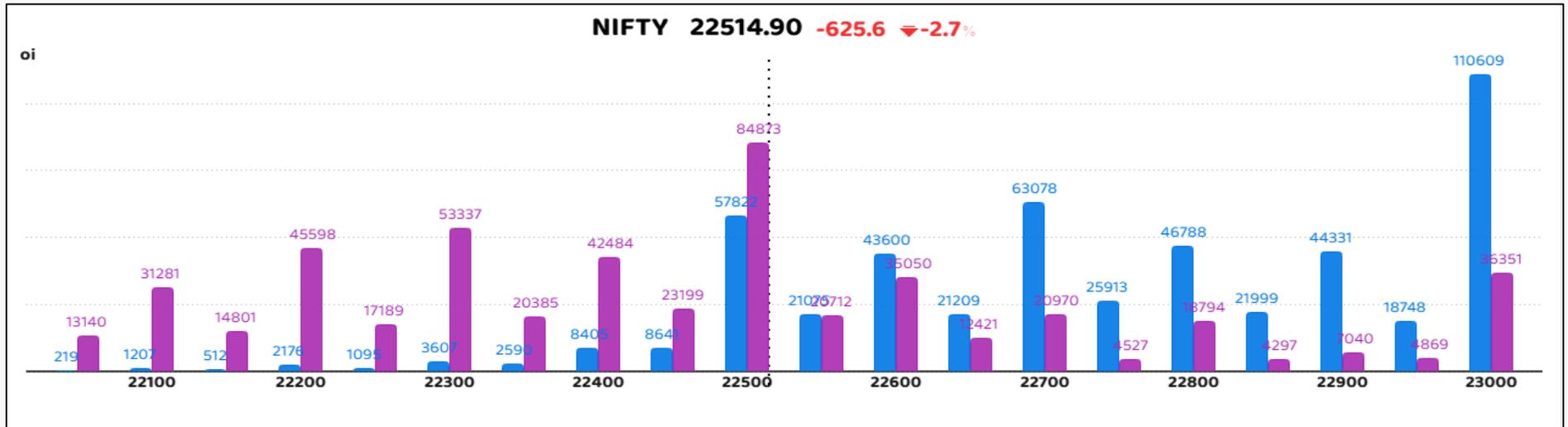
Midcap Select Nifty



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 23,000 Call and 22,500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 52,000 Call and the 51,000 Put saw the most amount of open interest.

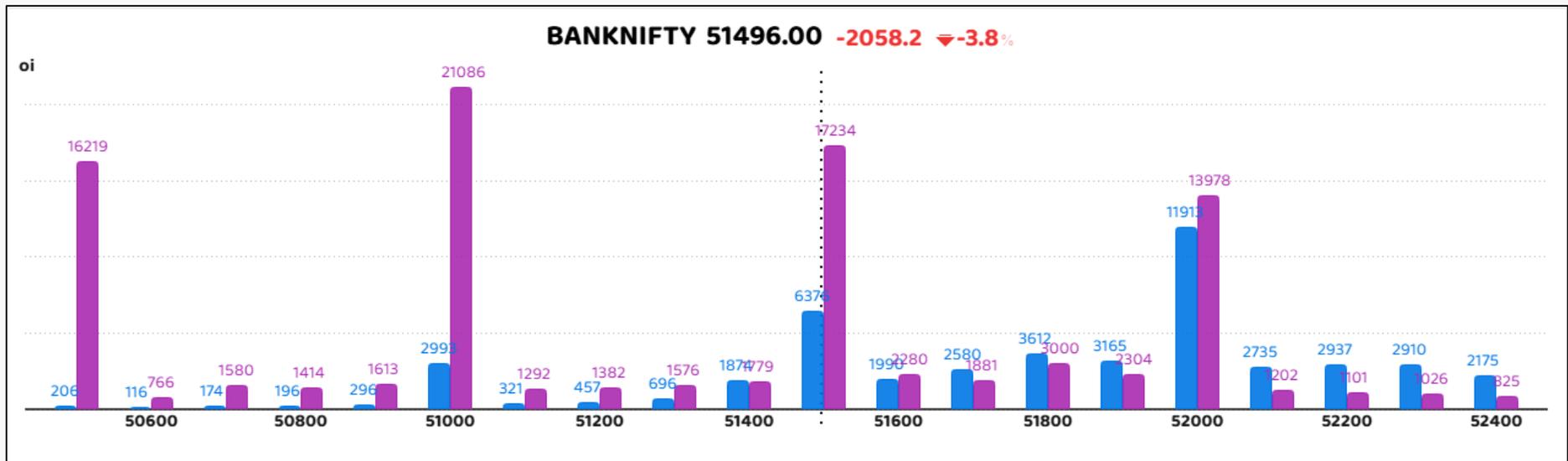
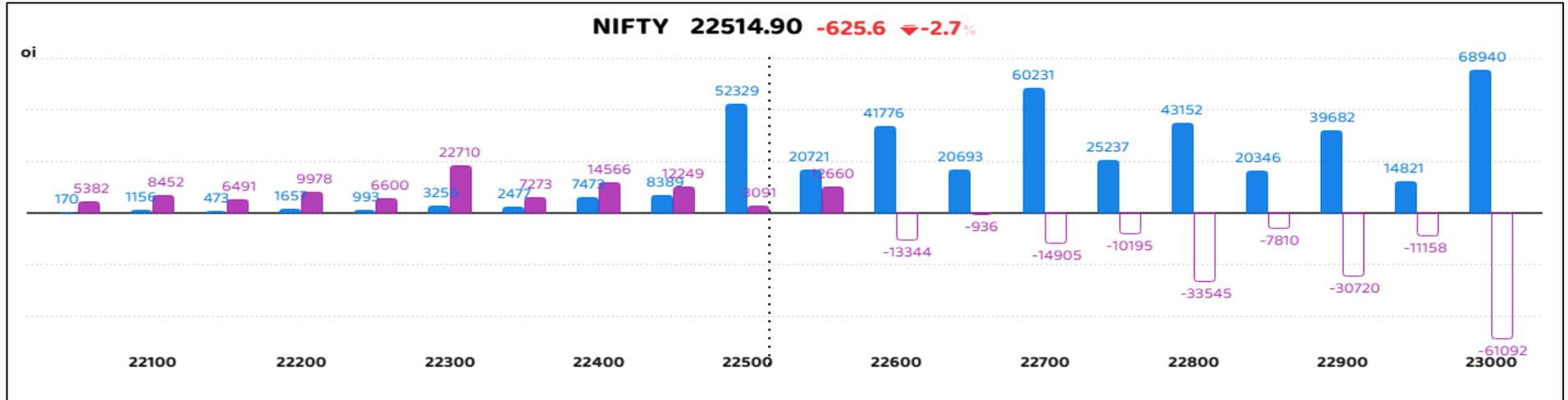


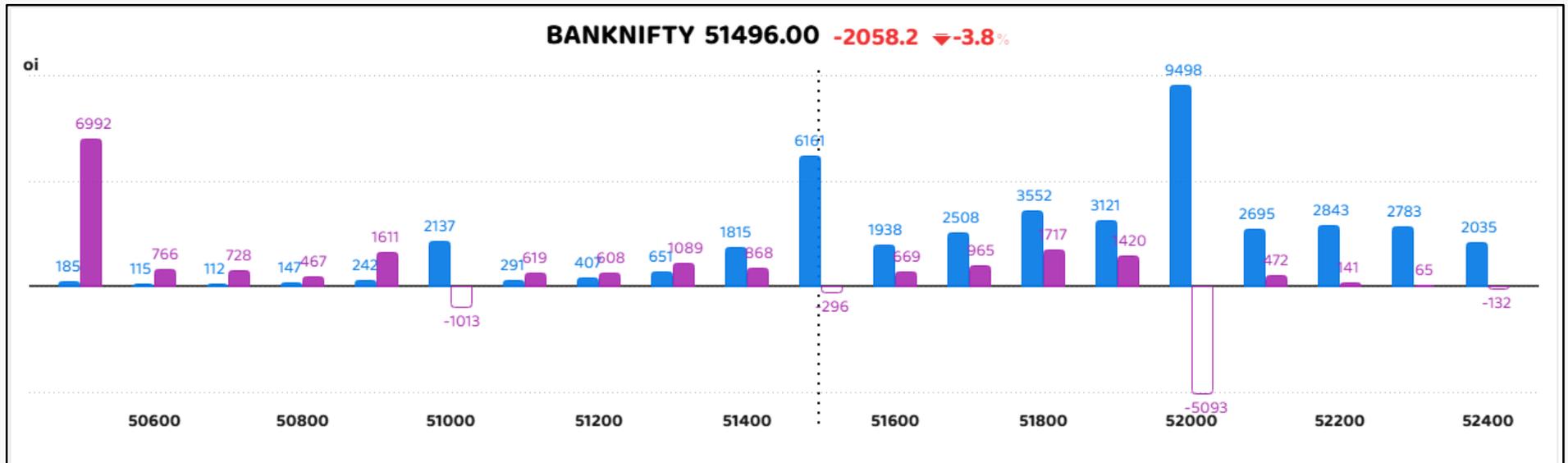
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23,000 Call and the 23,000 Put



For the Bank Nifty, the biggest open interest changes were seen at the 52,000 Call & the 52,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HDFC BANK LTD	744.2	-4.7	43.1	43.1	1.5	100.0
HINDUSTAN UNILEV	2,052.2	-1.5	29.6	29.6	0.8	100.0
LARSEN & TOUBRO	3,342.4	-2.7	44.6	44.6	14.2	100.0
MARUTI SUZUKI IN	12,355.0	-2.0	37.0	37.0	11.3	100.0
KOTAK MAHINDRA	356.6	-2.8	39.5	39.5	1.1	100.0

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
ADITYA BIRLA CAP	295.0	-5.2	43.7	658.6	8.2	5.5
HINDALCO INDS	840.3	-3.9	44.4	254.2	12.3	13.3
ASHOK LEYLAND	162.0	-4.1	119.9	734.8	18.5	14.1
CHOLAMANDALAM IN	1,380.9	-4.1	43.8	186.8	19.6	14.4
REC LTD	316.5	-4.3	42.9	244.9	8.0	14.7

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
HDFC BANK LTD	744.2	-4.7	43.1	43.1	1.5	100.0
HINDUSTAN UNILEV	2,052.2	-1.5	29.6	29.6	0.8	100.0
LARSEN & TOUBRO	3,342.4	-2.7	44.6	44.6	14.2	100.0
KOTAK MAHINDRA	356.6	-2.8	39.5	39.5	1.1	100.0
MARUTI SUZUKI IN	12,355.0	-2.0	37.0	37.0	11.3	100.0

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
STEEL AUTHORITY	143.0	-8.0	14.0	91.3	0.6	3.9
TATA CONSULTANCY	2,383.8	-0.3	13.8	44.6	1.6	4.1
ASTRAL LTD	1,556.3	-4.6	23.5	47.1	18.8	14.3
PI INDUSTRIES	2,762.6	-5.1	24.5	57.8	12.5	26.4
SUPREME INDS LTD	3,704.5	-3.4	33.0	49.9	17.6	55.1

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
NAUKRI	974.6	-0.4	8,909	2,829	3.1
BLUESTARCO	1,621.1	-5.1	5,227	1,732	3.0
BANKINDIA	143.8	-4.5	6,787	2,345	2.9
SUZLON	39.9	-4.8	23,773	8,261	2.9
BDL	1,158.5	-7.3	30,574	10,638	2.9

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
OBEROIRLTY	1,411.5	-2.4	4,560	7,960	1.7
MUTHOOTFIN	3,115.6	-6.0	29,481	46,894	1.6
KFINTECH	877.6	-4.0	1,808	2,581	1.4
HINDZINC	487.6	-5.3	26,605	37,674	1.4
BHARATFORG	1,648.6	-3.7	9,089	12,599	1.4

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
ABCAPITAL	295.0	-5.2	8,591	7,885	100.0
ADANIPOINTS	1,303.6	-4.5	21,925	21,057	100.0
ADANIGREEN	816.5	-5.4	17,447	16,809	100.0
GAIL	135.4	-5.2	14,587	14,261	100.0
HINDPETRO	319.2	-5.1	13,973	13,837	100.0

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
AMBUJACEM	395.4	-6.0	11,710	11,440	100.0
HDFCBANK	744.2	-4.7	1,22,498	1,18,174	100.0
GAIL	135.4	-5.2	14,579	14,304	100.0
BAJAJFINSV	1,675.5	-2.0	20,861	19,400	100.0
IDEA	8.7	-6.9	15,510	15,329	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
BAJAJFINSV	1,675.5	-2.0	60,927	51,443	100.0
HCLTECH	1,358.6	1.9	98,700	86,097	100.0
INDIGO	3,945.3	-4.9	1,29,789	1,02,392	100.0
TECHM	1,384.0	-0.1	85,490	52,995	100.0
VOLTAS	1,251.2	-5.5	34,482	41,523	83.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
LODHA	727.9	-8.7	17,760	13,970	100.0
PNBHOUSING	750.8	-5.2	6,018	5,137	100.0
VOLTAS	1,251.2	-5.5	30,105	19,800	100.0
VEDL	645.8	-3.9	53,261	43,284	100.0
YESBANK	17.6	-5.0	7,727	7,771	99.4

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
LODHA	727.9	-8.7	13,076	5,643	2.3
HDFCBANK	744.2	-4.7	2,78,385	1,37,185	2.0
SHRIRAMFIN	877.7	-6.5	25,324	13,345	1.9
BPCL	271.3	-5.7	19,450	10,597	1.8
INDIGO	3,945.3	-4.9	69,698	38,329	1.8

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
HDFCBANK	744.2	-4.7	1,22,498	75,237	1.6
PGEL	494.7	-3.5	8,531	5,247	1.6
HINDPETRO	319.2	-5.1	11,593	7,213	1.6
BLUESTARCO	1,621.1	-5.1	3,365	2,179	1.5
SHREECEM	22,725.2	-3.4	3,036	1,985	1.5

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
TECHM	1,384.0	-0.1	85,490	17,567	4.9
HCLTECH	1,358.6	1.9	98,700	25,509	3.9
INDIGO	3,945.3	-4.9	1,29,789	51,627	2.5
HDFCBANK	744.2	-4.7	4,49,904	1,84,609	2.4
LODHA	727.9	-8.7	13,871	5,727	2.4

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
MUTHOOTFIN	3,115.6	-6.0	46,894	10,481	4.5
PETRONET	238.0	-7.6	34,244	10,272	3.3
ADANIENSOL	947.0	-6.2	13,574	4,321	3.1
HCLTECH	1,358.6	1.9	52,486	16,794	3.1
360ONE	985.4	-5.3	3,003	973	3.1

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
ADANIEN	2000	1216842	9.1%	1833	2200	672075	20.0%	JIOFIN	260	6321500	15.0%	226	300	2737750	32.7%
ADANIPTS	1500	1074925	15.1%	1304	1500	729600	15.1%	JSWSTEEL	1300	926100	17.2%	1110	1100	241650	-0.9%
APOLLOHOSP	7800	207625	9.2%	7145	6800	93750	-4.8%	KOTAKBANK	380	3992000	6.6%	357	360	5074000	1.0%
ASIANPAINT	2400	536750	13.1%	2121	2000	714500	-5.7%	LT	4000	1510600	19.7%	3342	3500	377125	4.7%
AXISBANK	1200	3500625	2.5%	1171	1200	1091250	2.5%	M&M	3500	548800	18.4%	2956	3500	338800	18.4%
BAJAJ-AUTO	9000	202725	2.6%	8776	9100	66150	3.7%	MARUTI	14000	288950	13.3%	12355	12000	67750	-2.9%
BAJAJFINSV	1840	1077250	9.8%	1676	1920	429250	14.6%	MAXHEALTH	980	256200	2.4%	957	950	283500	-0.7%
BAJFINANCE	900	3144000	10.8%	813	800	1134000	-1.6%	NESTLEIND	1200	727000	2.8%	1167	1200	163000	2.8%
BEL	450	5030250	11.0%	406	430	2073375	6.0%	NTPC	390	20134500	4.7%	372	380	3478500	2.0%
BHARTIARTL	2000	2139875	11.4%	1796	1800	1298175	0.2%	ONGC	300	12321000	13.0%	265	260	4662000	-2.1%
CIPLA	1350	1703625	10.5%	1222	1260	363000	3.1%	POWERGRID	305	5339000	1.0%	302	300	2422500	-0.7%
COALINDIA	470	3708450	3.2%	455	410	2116800	-9.9%	RELIANCE	1400	10323000	-0.6%	1408	1400	4696000	-0.6%
DRREDDY	1350	1965625	7.7%	1253	1300	623125	3.7%	SBILIFE	2100	437250	14.6%	1832	1900	390000	3.7%
EICHERMOT	8000	249600	19.7%	6682	8500	108300	27.2%	SBIN	1080	4146000	4.7%	1032	1000	2326500	-3.1%
ETERNAL	250	11453275	10.2%	227	200	8720300	-11.9%	SHRIRAMFIN	900	2007225	2.5%	878	1000	1765500	13.9%
GRASIM	2860	380000	13.0%	2531	2500	127500	-1.2%	SUNPHARMA	1800	2270100	2.4%	1758	1800	399700	2.4%
HCLTECH	1380	1079400	1.6%	1359	1320	663600	-2.8%	TATACONSUM	1300	619300	27.0%	1024	1060	344300	3.6%
HDFCBANK	800	11907500	7.5%	744	800	2735700	7.5%	TMPV	400	4797600	31.0%	305	290	3167200	-5.0%
HDFCLIFE	750	1795200	26.7%	592	600	481800	1.3%	TATASTEEL	210	13458500	12.2%	187	190	8266500	1.5%
HINDALCO	920	2691500	9.5%	840	900	920500	7.1%	TCS	2700	1427475	13.3%	2384	2600	621250	9.1%
HINDUNILVR	2400	837300	16.9%	2052	2200	233100	7.2%	TECHM	1440	1677000	4.0%	1384	1340	1704600	-3.2%
ICICIBANK	1400	3607100	14.5%	1223	1400	2162300	14.5%	TITAN	4300	356300	11.6%	3853	3900	205975	1.2%
INDIGO	4100	1118700	3.9%	3945	4000	397800	1.4%	TRENT	4000	578900	19.2%	3357	3600	133600	7.2%
INFY	1400	4500800	11.4%	1257	1240	1672000	-1.3%	ULTRACEMCO	12000	92850	15.8%	10362	11000	21800	6.2%
ITC	310	23345600	6.7%	290	305	3689600	5.0%	WIPRO	200	10647000	6.6%	188	190	4785000	1.3%

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

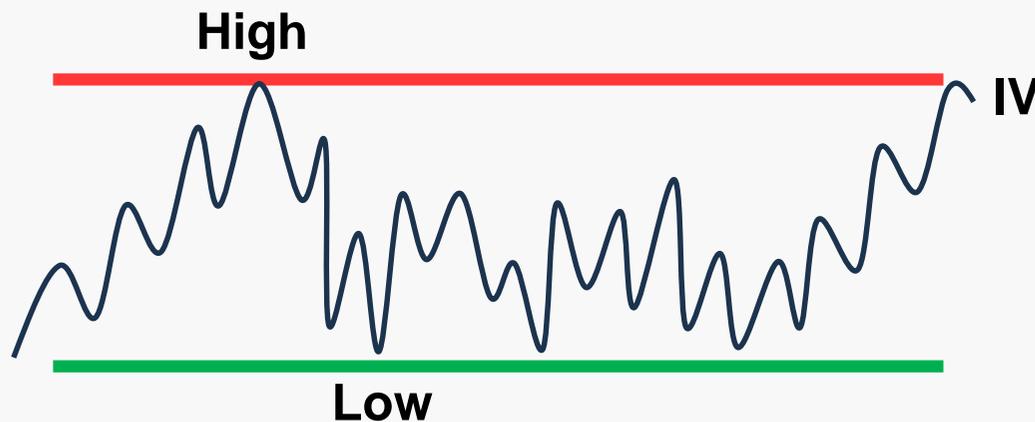
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

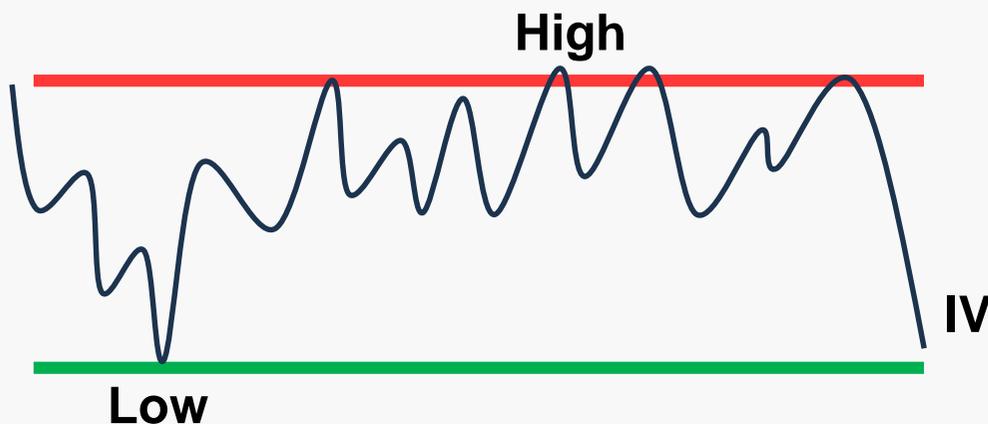
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

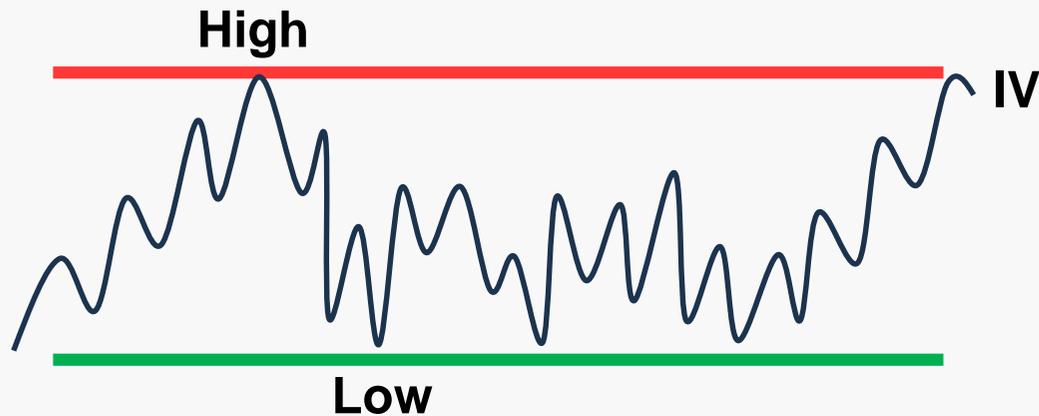


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

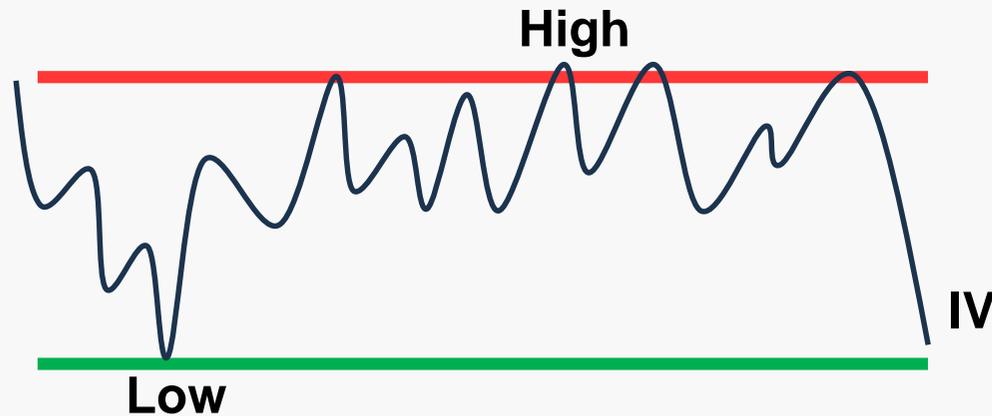


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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