



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	22,426	2.1%▼
Open Interest (OI)	2,32,23,655	43.2%▲
Change in OI (abs)	2,52,23,655	70,06,480▲
Premium / Discount (Abs)	95	98▲
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	50,631	2.7%▼
Open interest (OI)	31,01,730	8.3%▲
Change in OI (abs)	31,01,730	2,50,380▲
Premium / Discount (Abs)	356	26▼
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	27.89	1.09▲
Nifty ATM IV (%)	28.42	3.21▲
Bank Nifty ATM IV (%)	33.62	2.57▲
PCR (Nifty)	0.92	0.02▼
PCR (Bank Nifty)	0.85	0.02▲

The FII Long Ratio in Index Futures **Jump** to **15.3%**, **Up** from **15.3 %** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
SAMMAANCAP	11,18,38,700	2.5%	150.15	0.5%

Short Buildup (Open Interest Higher + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
RBLBANK	7,23,04,275	5.0%	291.3	-2.0%
PERSISTENT	54,10,100	4.3%	4695.4	-1.2%
SOLARINDS	7,40,750	2.3%	12123	-2.8%
HDFCBANK	35,80,21,950	1.5%	735.9	-3.2%
APLAPOLLO	47,11,000	1.2%	1946.8	-2.5%

Short Covering (Open Interest Lower + Price Higher)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
ONGC	9,58,07,250	-27.5%	284.75	0.5%
OIL	2,26,70,200	-19.1%	475.1	0.9%
COALINDIA	5,13,35,100	-15.1%	450.85	1.2%
RVNL	5,16,76,150	-12.6%	241.45	1.4%
HINDALCO	4,64,47,100	-10.4%	887.9	2.0%

Long Unwinding (Open Interest Lower + Price Lower)

Symbol	Open Interest	Chg (%)	Price	Chg (%)
KPITTECH	63,24,000	-23.7%	636.7	-3.9%
360ONE	25,84,000	-22.8%	943	-4.0%
HUDCO	3,07,10,925	-21.6%	160.37	-5.2%
SUNPHARMA	1,70,82,450	-20.8%	1765.5	-1.9%
LUPIN	59,24,500	-20.5%	2316.8	-1.2%

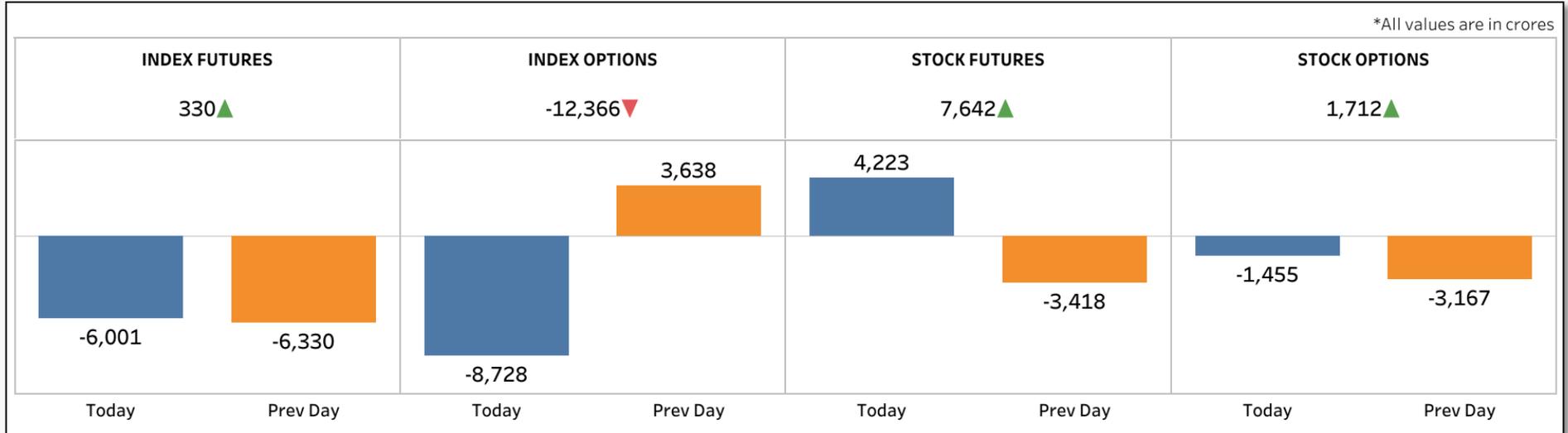
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

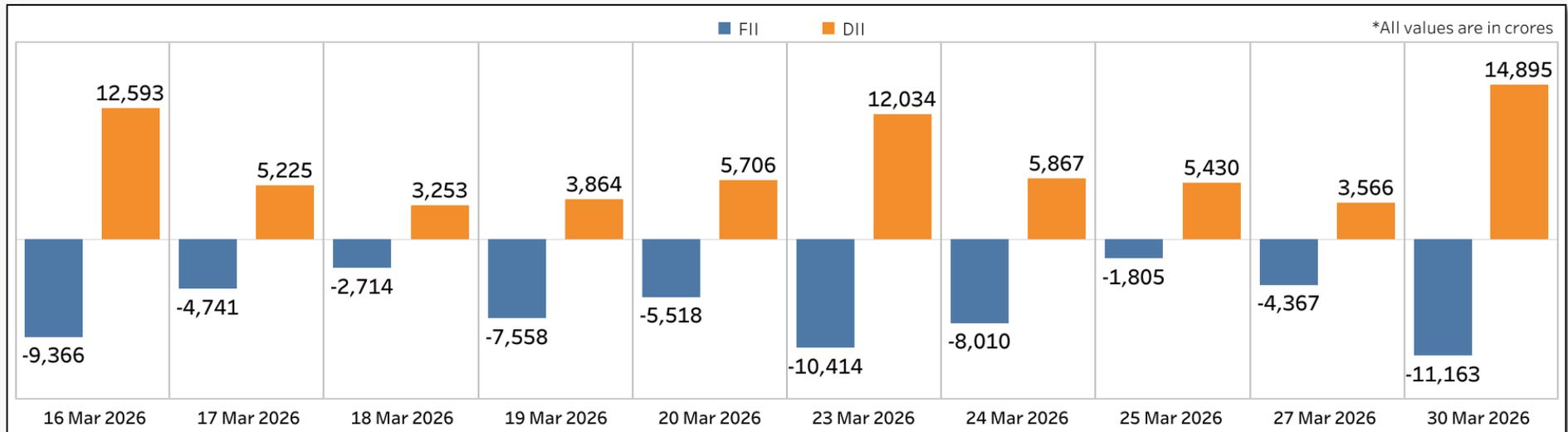
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-32,827 ▼	56,762 ▲	-51,307 ▼	118,055 ▲	-522 ▼	-1,526 ▼	-417 ▼	-59,616 ▼
			59,924				36,930
10,936	15,421		6,400				
-21,891				165	2,390	3,916	
	-41,341	-44,907		-357		-52	
			-58,131				-22,686
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-232,437	-264,046	363,572	982,670	2,854	73,841	27,417	-3,843,872
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
10,261 ▲	-15,568 ▼	177,827 ▲	-103,646 ▼	23,087 ▲	-39,668 ▼	-126,103 ▼	45,207 ▲
		107,190					63,872
25,876	15,615	15,207	30,775				63,064
			3,344				17,857
		-70,637		-3,629	-26,716	-33,018	
			-100,302				-62,231
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
336,940	180,743	-425,403	2,359,619	-107,358	9,462	34,414	501,583
Today	Prev Day	Today	Prev Day	Today	Prev Day	Today	Prev Day

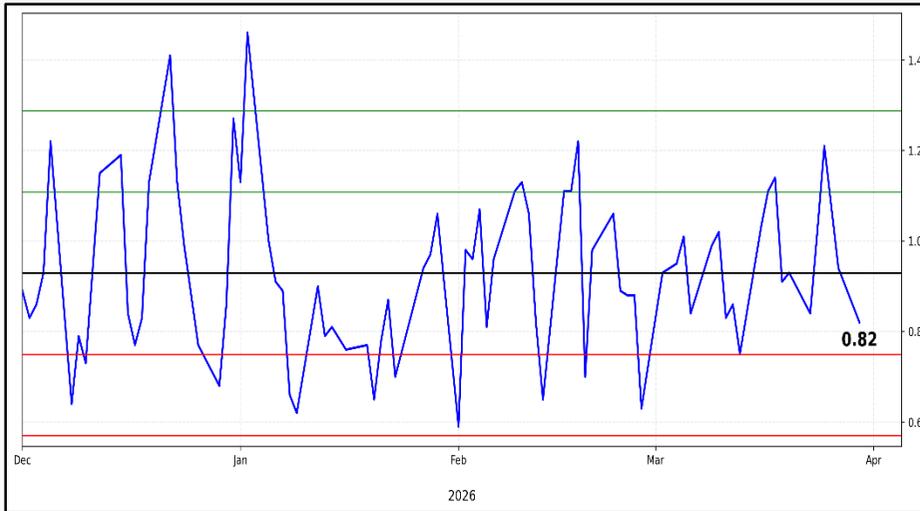
Daily Net Open Interest Change



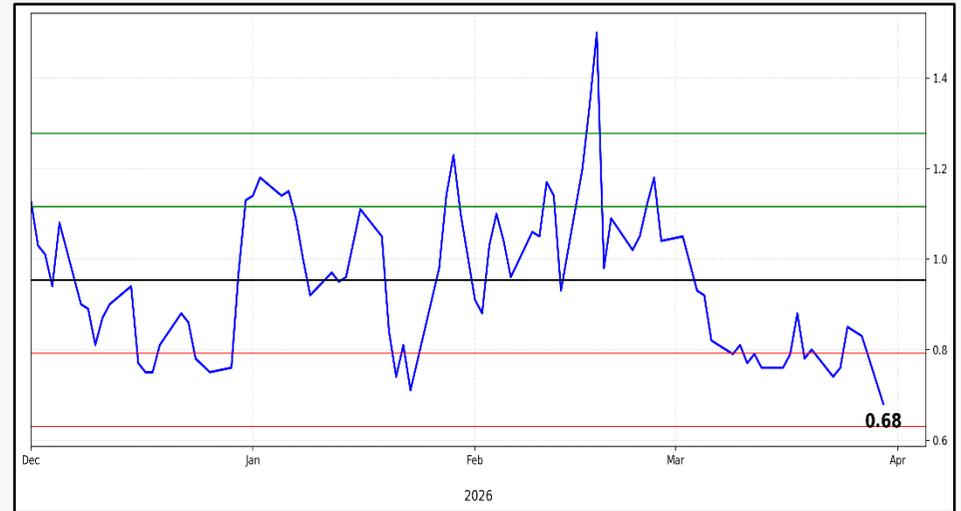
DII and FII Daily Cash Market Flows



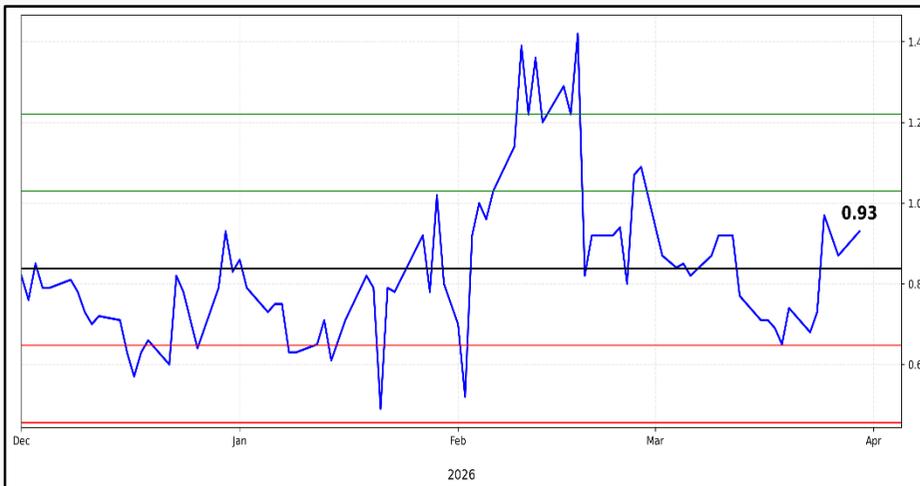
Nifty



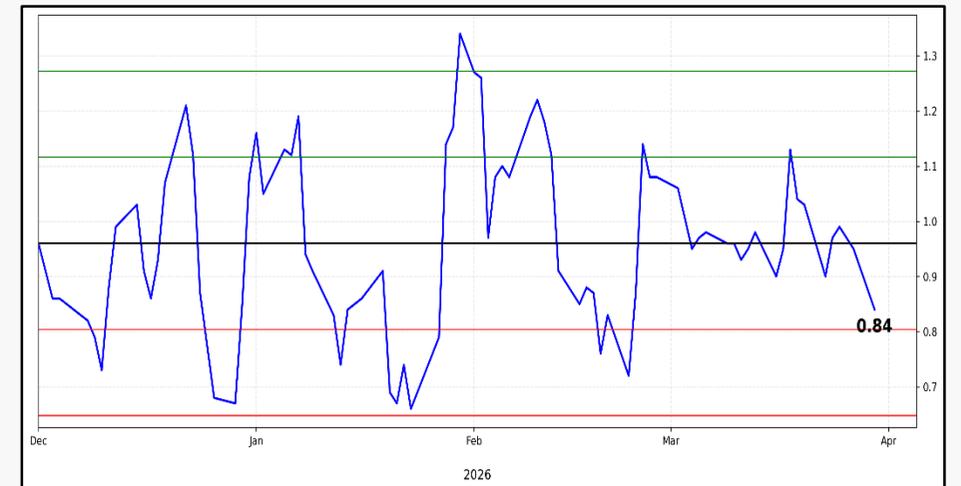
Bank Nifty



Fin Nifty



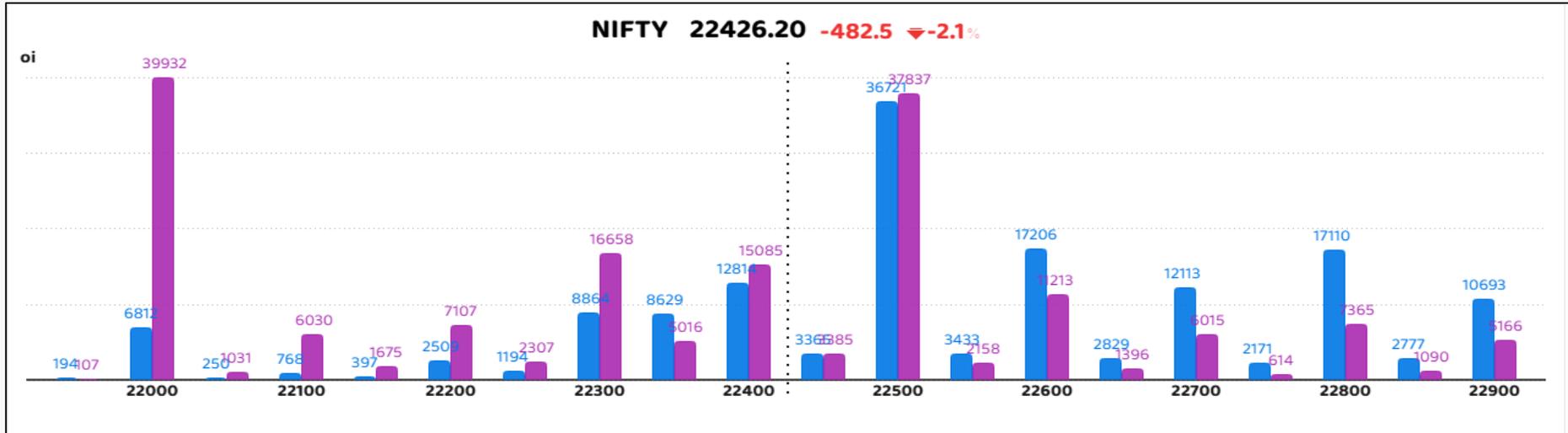
Midcap Select Nifty



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 53,000 Call and the 52,500 Put saw the most amount of open interest.

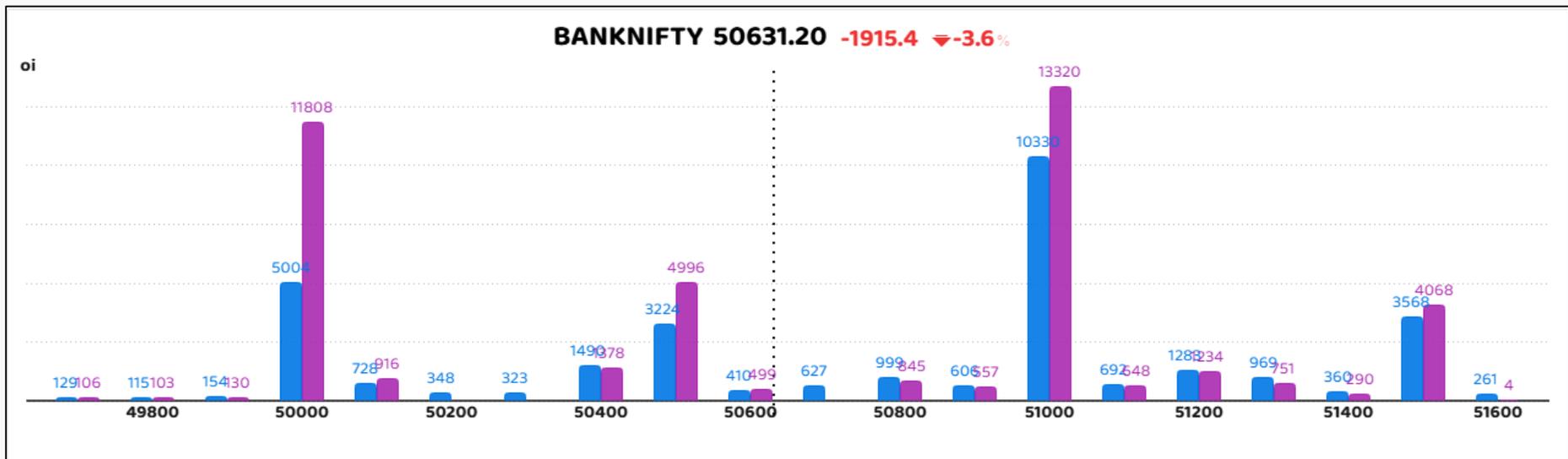
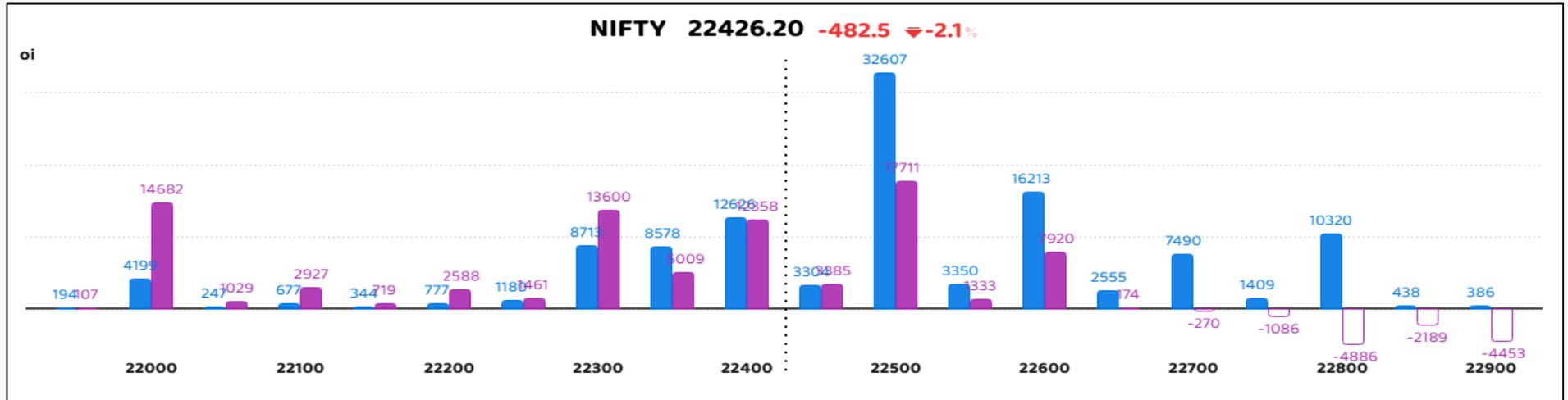


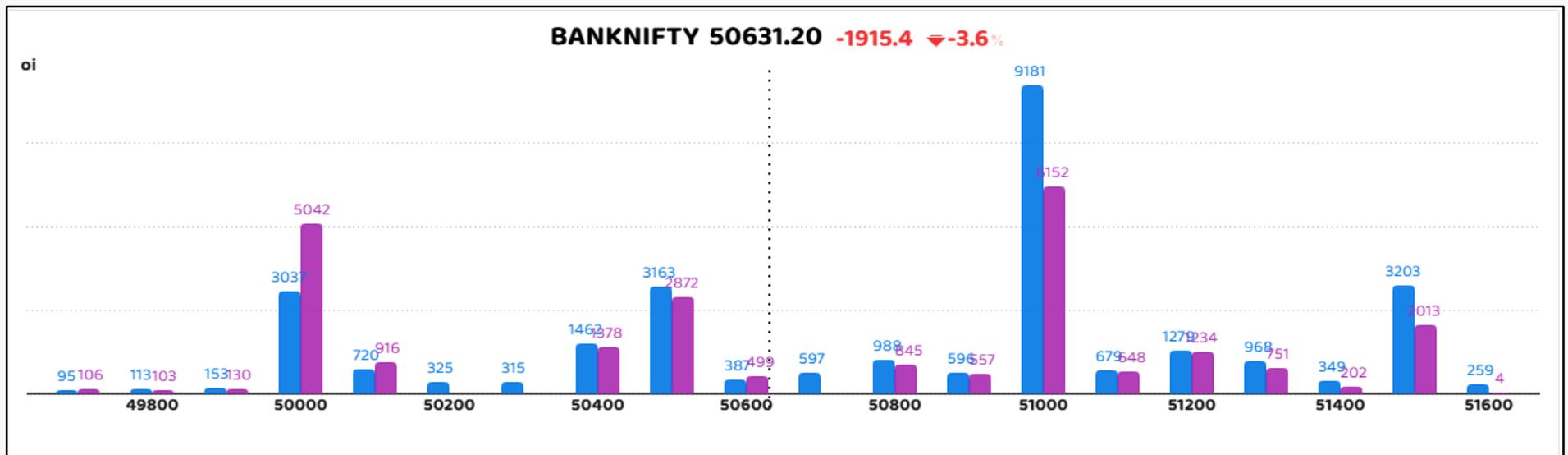
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23,000 Call and the 23,300 Put



For the Bank Nifty, the biggest open interest changes were seen at the 53,000 Call & the 52,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
STATE BANK IND	979.4	-3.93%	40.6	40.6	2.1	100
ULTRATECH CEMENT	10745	-2.75%	36.5	36.5	14.1	100
BAJAJ FINSERV LT	1631.8	-3.71%	40.3	40.3	13	100
NESTLE INDIA LTD	1174.8	-1.54%	30.7	30.7	12.2	100
SBI LIFE INSURAN	1777.3	-3.28%	32	32	12.5	100

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
TATA CONSULTANCY	2358.9	-1.29%	2.4	44.6	1.6	1.7
ASHOK LEYLAND	154.13	-5.49%	47.4	734.8	18.5	4
ADITYA BIRLA CAP	292.25	-4.42%	41.5	658.6	8.2	5.1
HINDALCO INDS	884.45	2.05%	39.2	254.2	12.3	11.1
NTPC LTD	370.65	-1.33%	27.7	116.6	14.9	12.5

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ULTRATECH CEMENT	10745	-2.80%	36.5	36.5	14.1	100
STATE BANK IND	979.4	-3.90%	40.6	40.6	2.1	100
BAJAJ FINSERV LT	1631.8	-3.70%	40.3	40.3	13	100
NESTLE INDIA LTD	1174.8	-1.50%	30.7	30.7	12.2	100
SBI LIFE INSURAN	1777.3	-3.30%	32	32	12.5	100

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
ALKEM LABORATORI	5299	-0.90%	26	34	13.7	65.6
ZYDUS LIFESCIENC	871.2	-2.80%	25.9	41.7	16.5	66.1
ASTRAL LTD	1599	-1.20%	30.3	47.1	18.8	71.9
KEI INDUS LTD	4038	-2.10%	36.8	85.2	20.9	72.8
PERSISTENT SYS	4877.2	-0.50%	37.7	61.7	24.7	73.4

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
BAJAJHLDNG	8,746.0	-4.4	6,021.0	1,250.0	4.8
OIL	475.4	-0.5	25,240.0	7,621.0	3.3
GLENMARK	2,131.8	-1.8	8,708.0	2,865.0	3.0
BOSCHLTD	28,744.8	-2.9	7,728.0	2,585.0	3.0
ONGC	284.6	1.0	84,797.0	32,471.0	2.6

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
SYNGENE	389.9	-6.2	1,959.0	5,786.0	3.0
HAVELLS	1,190.6	-3.3	3,827.0	10,556.0	2.8
AUBANK	842.7	-4.5	7,512.0	14,933.0	2.0
ALKEM	5,299.0	-0.9	2,085.0	3,982.0	1.9
PRESTIGE	1,126.5	-3.9	1,816.0	3,285.0	1.8

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
AMBUJACEM	401.2	-1.9	19,690.0	17,417.0	100.0
GAIL	137.7	0.4	17,117.0	15,229.0	100.0
LODHA	677.0	-3.3	16,785.0	15,851.0	100.0
KOTAKBANK	353.4	-3.5	25,313.0	23,266.0	100.0
IDEA	8.5	-4.0	38,995.0	34,421.0	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	401.2	-1.9	13,684.0	12,703.0	100.0
DMART	3,956.9	1.4	8,884.0	8,111.0	100.0
GAIL	137.7	0.4	17,559.0	15,205.0	100.0
LODHA	677.0	-3.3	9,822.0	8,739.0	100.0
INOXWIND	75.5	-4.8	10,642.0	7,717.0	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
VEDL	654.8	0.8	80,623.0	84,501.0	95.4
HINDALCO	884.4	2.0	97,546.0	121,421.0	80.3
YESBANK	17.2	-4.8	11,555.0	14,639.0	78.9
SAMMAANCAP	149.5	0.8	10,192.0	14,297.0	71.3
GAIL	137.7	0.4	16,369.0	23,255.0	70.4

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
AMBUJACEM	401.2	-1.9	10,230.0	9,152.0	100.0
HAVELLS	1,190.6	-3.3	10,556.0	7,477.0	100.0
IDEA	8.5	-4.0	13,988.0	11,505.0	100.0
YESBANK	17.2	-4.8	8,123.0	7,771.0	100.0
VEDL	654.8	0.8	47,394.0	53,261.0	89.0

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
LODHA	677.0	-3.3	16,785.0	7,562.8	2.2
SHRIRAMFIN	872.1	-3.5	24,024.0	16,399.7	1.5
PRESTIGE	1,126.5	-3.9	4,751.0	3,264.2	1.5
BPCL	281.0	-0.6	18,522.0	12,797.1	1.4
GAIL	137.7	0.4	17,117.0	11,924.5	1.4

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
LODHA	677.0	-3.3	9,822.0	5,876.8	1.7
ONGC	284.6	1.0	26,544.0	16,962.8	1.6
INOXWIND	75.5	-4.8	10,642.0	6,872.2	1.5
SAMMAANCAP	149.5	0.8	3,682.0	2,385.4	1.5
DMART	3,956.9	1.4	8,884.0	6,162.6	1.4

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
SAMMAANCAP	149.5	0.8	10,192.0	649.1	15.7
HINDALCO	884.4	2.0	97,546.0	38,235.3	2.6
PATANJALI	459.7	-3.5	6,230.0	2,772.0	2.2
SAIL	151.4	3.4	2,942.0	1,332.1	2.2
BAJAJHLDNG	8,746.0	-4.4	6,021.0	2,949.3	2.0

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SAMMAANCAP	149.5	0.8	5,145.0	496.7	10.4
NUVAMA	1,160.9	-2.9	2,575.0	751.6	3.4
HAVELLS	1,190.6	-3.3	10,556.0	3,143.8	3.4
ALKEM	5,299.0	-0.9	3,982.0	1,222.2	3.3
INOXWIND	75.5	-4.8	11,215.0	3,725.4	3.0

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
ADANIANT	2000	561762	13.7%	1759	2200	592044	25.1%	JIOFIN	300	3745900	33.9%	224	300	2683700	33.9%
ADANIPTS	1400	870200	6.7%	1313	1200	1302925	-8.6%	JSWSTEEL	1200	289575	6.9%	1123	1150	486000	2.4%
APOLLOHOSP	7500	48375	1.1%	7419	7000	82625	-5.6%	KOTAKBANK	370	4708000	4.7%	353	335	3106000	-5.2%
ASIANPAINT	2300	462750	6.2%	2165	2140	397500	-1.2%	LT	4000	632275	14.2%	3504	3600	404425	2.7%
AXISBANK	1300	606250	11.9%	1161	1100	522500	-5.3%	M&M	3200	527000	8.3%	2955	3000	364600	1.5%
BAJAJ-AUTO	9000	123900	2.5%	8782	8400	51375	-4.3%	MARUTI	14000	95550	13.8%	12306	12000	68950	-2.5%
BAJAJFINSV	1760	324000	7.9%	1632	1620	307500	-0.7%	MAXHEALTH	1100	184275	14.3%	962	1100	133350	14.3%
BAJFINANCE	800	1240500	-0.2%	802	800	1539750	-0.2%	NESTLEIND	1300	110000	10.7%	1175	1190	153000	1.3%
BEL	500	3415725	24.8%	401	400	2643375	-0.2%	NTPC	400	3013500	7.9%	371	380	1906500	2.5%
BHARTIARTL	1900	866875	6.6%	1782	1840	590425	3.2%	ONGC	300	4333500	5.4%	285	270	4261500	-5.1%
CIPLA	1300	292500	6.2%	1224	1160	507375	-5.2%	POWERGRID	320	3467500	8.1%	296	300	2342700	1.3%
COALINDIA	500	2143800	11.0%	450	450	1107000	-0.1%	RELIANCE	1400	5405500	4.2%	1344	1400	2308500	4.2%
DRREDDY	1300	173125	3.6%	1255	1200	279375	-4.4%	SBILIFE	2000	72750	12.5%	1777	1800	93000	1.3%
EICHERMOT	8000	136000	21.5%	6586	6900	105200	4.8%	SBIN	1100	3419250	12.3%	979	1100	2469750	12.3%
ETERNAL	240	4748150	4.8%	229	230	3428950	0.4%	SHRIRAMFIN	1000	1145925	14.7%	872	900	1074150	3.2%
GRASIM	2800	66250	9.5%	2558	2600	65000	1.7%	SUNPHARMA	1830	382900	4.1%	1757	1690	366800	-3.8%
HCLTECH	1400	475650	4.4%	1342	1400	421050	4.4%	TATACONSUM	1100	206800	8.4%	1015	1100	207350	8.4%
HDFCBANK	800	7957950	9.4%	732	800	2842950	9.4%	TMPV	380	2901600	28.3%	296	300	1870400	1.3%
HDFCLIFE	700	550000	18.5%	591	600	359700	1.6%	TATASTEEL	200	10626000	4.2%	192	190	6314000	-1.0%
HINDALCO	900	2083900	1.8%	884	900	644000	1.8%	TCS	2400	1212050	1.7%	2359	2400	1080450	1.7%
HINDUNILVR	2100	446100	2.2%	2055	2100	404700	2.2%	TECHM	1400	639600	1.2%	1384	1400	721800	1.2%
ICICIBANK	1220	1253000	1.2%	1206	1220	1277500	1.2%	TITAN	4200	105350	6.3%	3951	3700	100100	-6.4%
INDIGO	4400	321900	11.6%	3944	4200	231150	6.5%	TRENT	3500	291700	6.2%	3296	3300	162900	0.1%
INFY	1280	1839200	2.4%	1251	1280	1618400	2.4%	ULTRACEMCO	12000	63350	11.7%	10745	10000	32300	-6.9%
ITC	300	7320000	4.3%	288	300	4049600	4.3%	WIPRO	190	5784000	1.3%	188	190	5166000	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

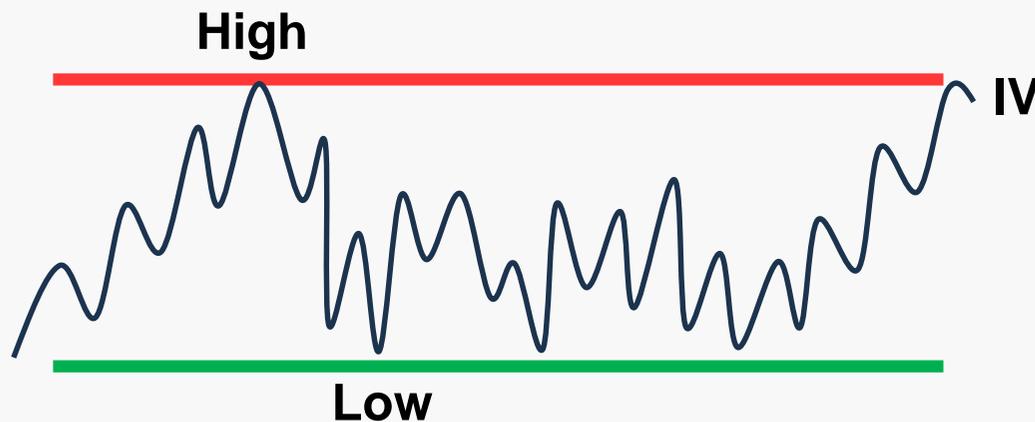
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

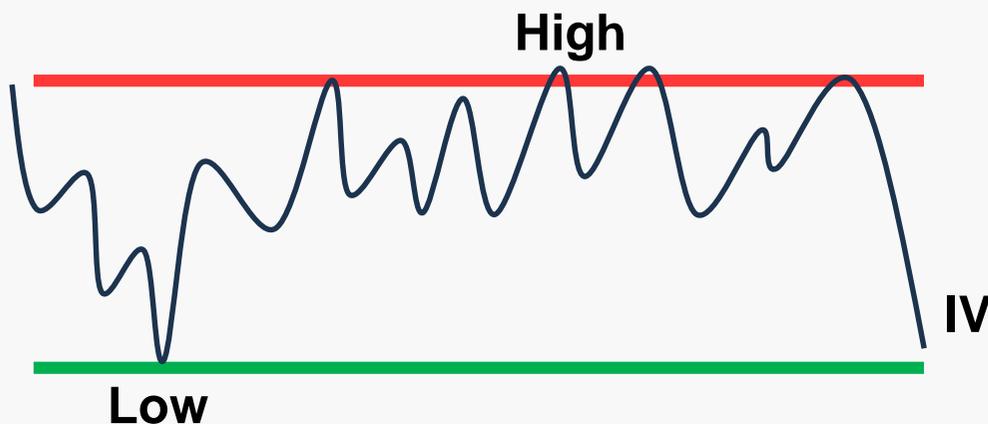
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

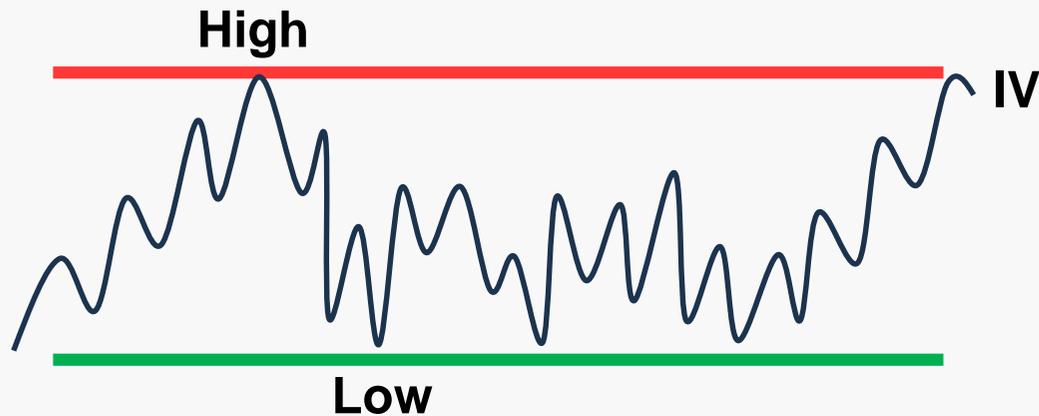


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

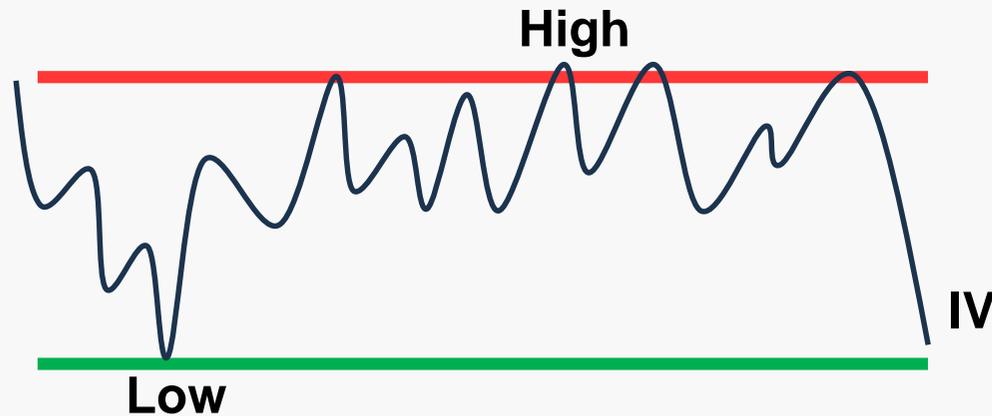


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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