



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	23,055	3.0% ▼
Open Interest (OI)	2,18,97,135	1.5% ▲
Change in OI (abs)	2,18,97,135	3,12,130 ▲
Premium / Discount (Abs)	53	54 ▲
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	53,604	3.3% ▼
Open interest (OI)	31,81,230	1.3% ▼
Change in OI (abs)	31,81,230	41,970 ▼
Premium / Discount (Abs)	153	63 ▲
Inference	Long Unwinding	

Volatility Insights

	Value	Change
India VIX Index	22.8	4.08 ▲
Nifty ATM IV (%)	24.45	7.20 ▲
Bank Nifty ATM IV (%)	26.93	7.30 ▲
PCR (Nifty)	0.91	0.23 ▼
PCR (Bank Nifty)	0.78	0.10 ▼

The FII Long Ratio in Index Futures **Jump** to **14.1%**, **Up** from **14.1 %** in the previous session.

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ONGC	12,61,62,000	4.8%	269.25	1.4%
OIL	2,40,88,400	4.0%	476.1	0.9%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
IRFC	7,85,61,250	10.8%	94.43	-4.2%
POLICYBZR	85,48,750	10.6%	1488.2	-3.1%
BPCL	5,80,80,800	9.7%	286.2	-6.0%
DIXON	31,42,250	8.0%	10136	-5.4%
LTF	7,22,56,500	7.8%	255.4	-4.6%

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 (%)
360ONE	26,56,000	-8.6%	1039.4	-2.9%
MUTHOOTFIN	33,15,675	-5.5%	3299.1	-3.8%
ETERNAL	25,35,41,025	-4.3%	228.75	-5.6%
AMBER	12,43,500	-3.5%	6665	-2.6%
ANGELONE	4,12,30,000	-3.5%	230.56	-2.0%

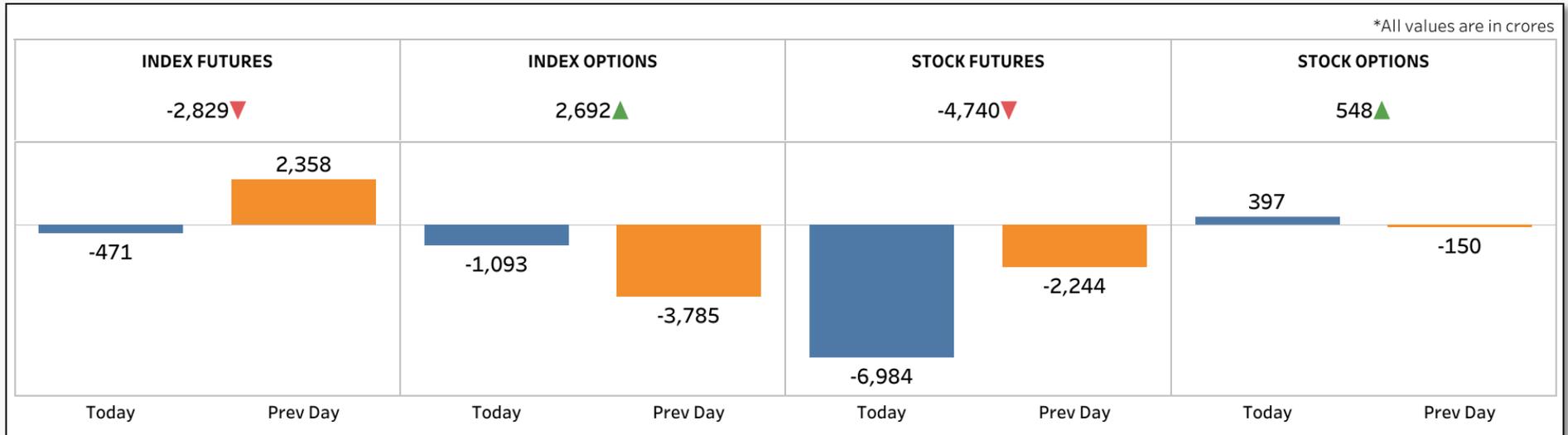
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

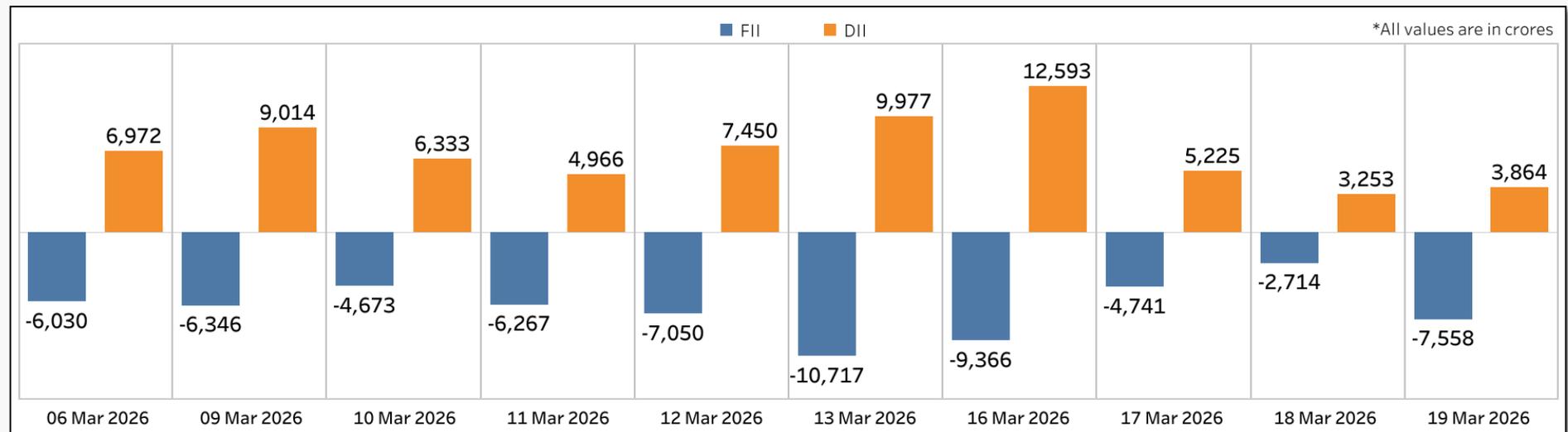
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-37,730 ▼	-18,133 ▼	54,089 ▲	-88,808 ▼	2,152 ▲	2,100 ▲	951 ▲	51,049 ▲
-48,293	-10,563	39,693	-126,338	2,205	-2,623	2,500	97,503
	-3,155	14,978	-37,530	53	-4,723	1,549	46,454
		-14,396					
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-223,504	-228,952	414,041	1,006,273	2,193	51,714	26,200	-3,962,674
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
90,915 ▲	28,688 ▲	-133,179 ▼	1,803 ▲	-55,334 ▼	-12,655 ▼	78,141 ▲	35,956 ▲
72,035	22,026	-141,503	3,003	-25,946	-16,248	99,311	25,832
	-18,880	-8,324	1,200	29,388	-3,593	21,170	-10,124
	-6,662						
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
332,613	151,296	-516,972	2,495,473	-111,302	25,942	76,731	460,928
Today	Today	Today	Today	Today	Today	Today	Today
Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day	Prev Day

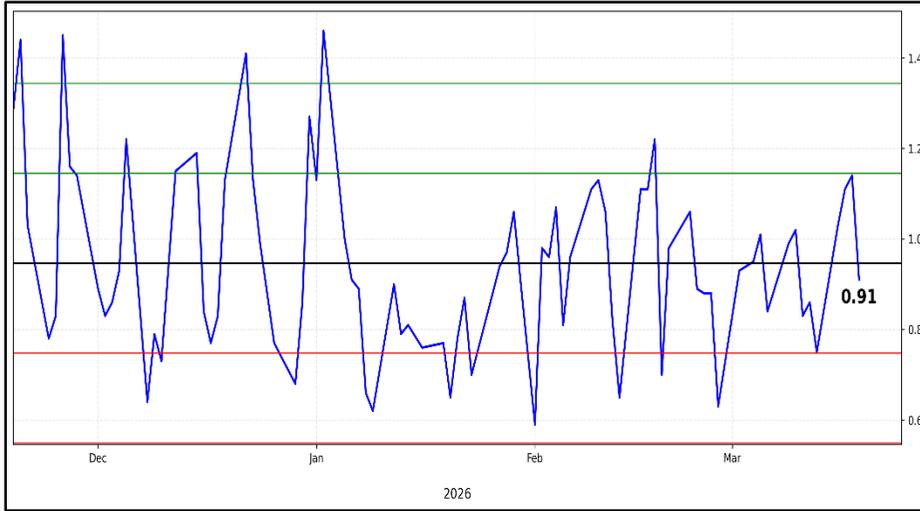
Daily Net Open Interest Change



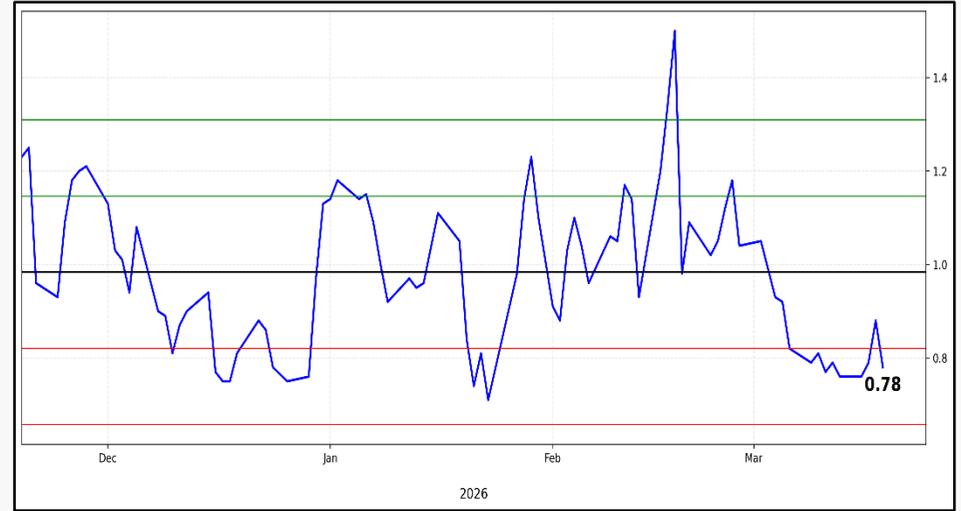
DII and FII Daily Cash Market Flows



Nifty



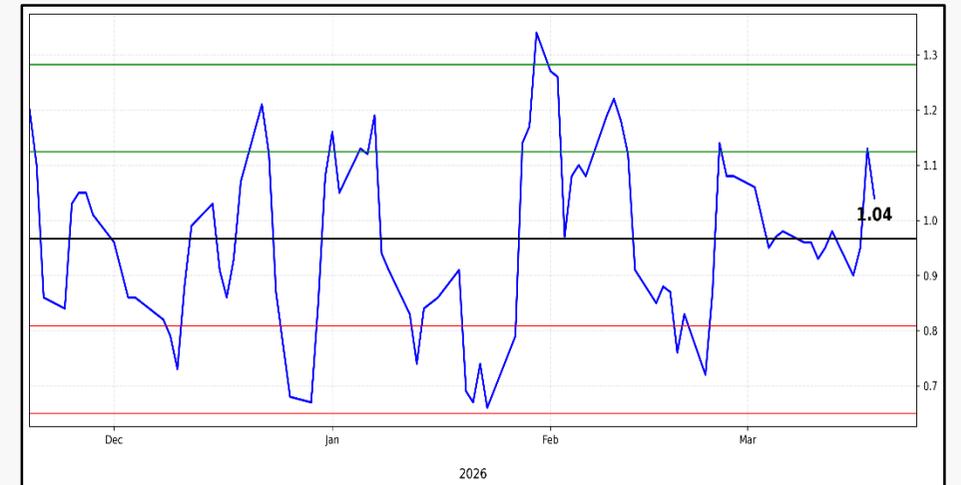
Bank Nifty



Fin Nifty

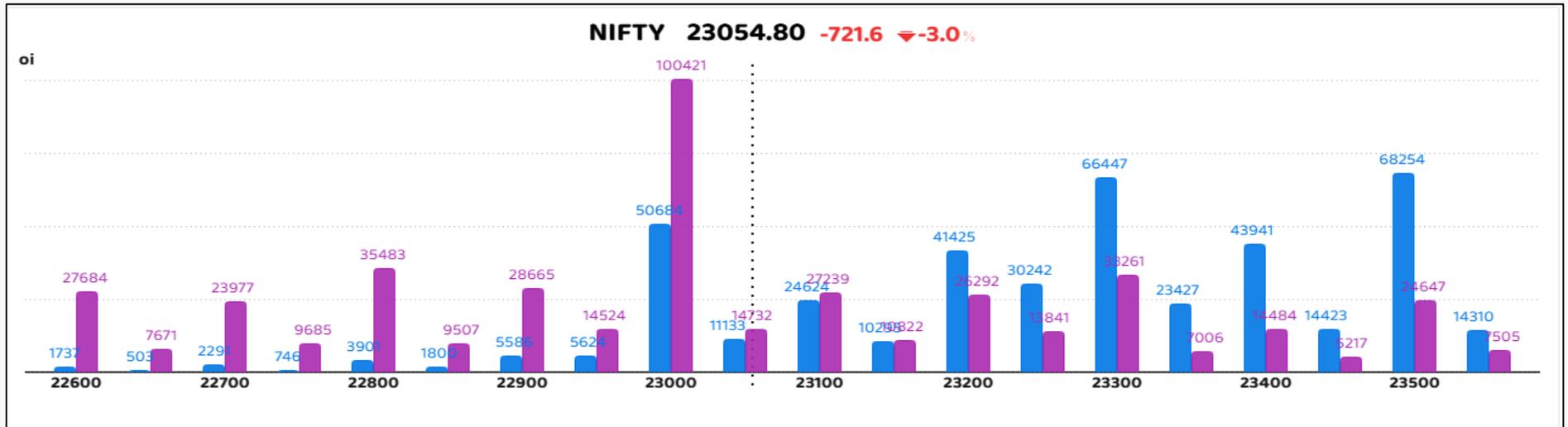


Midcap Select Nifty



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

Call ■ Put ■



For Nifty, the 23,500 Call and 23,000 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 54,000 Call and the 54,000 Put saw the most amount of open interest.

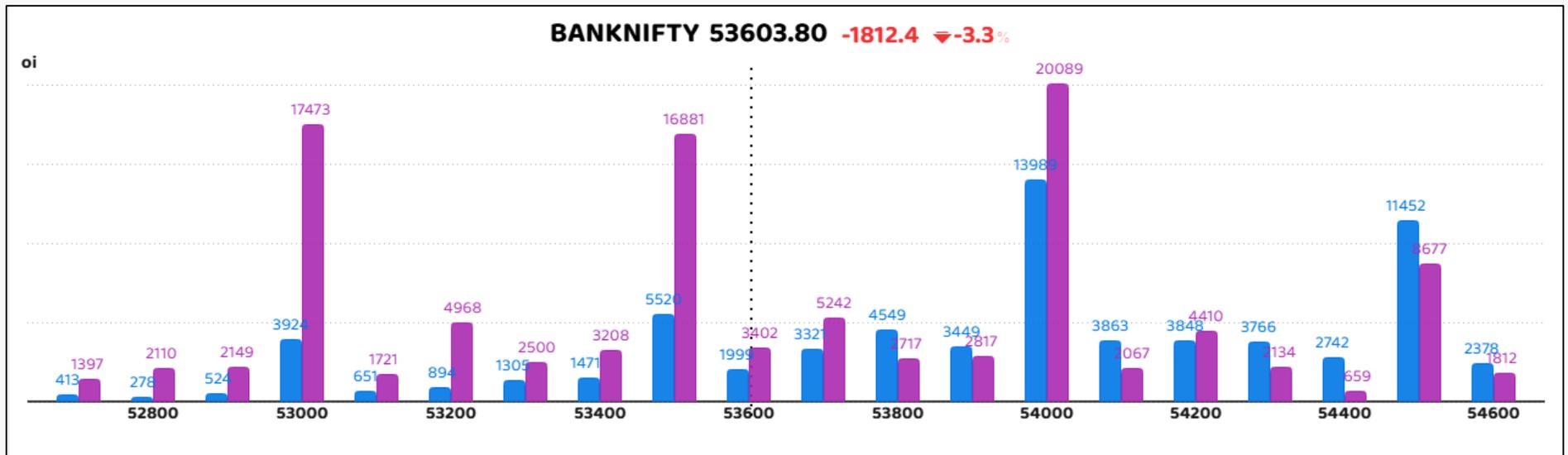
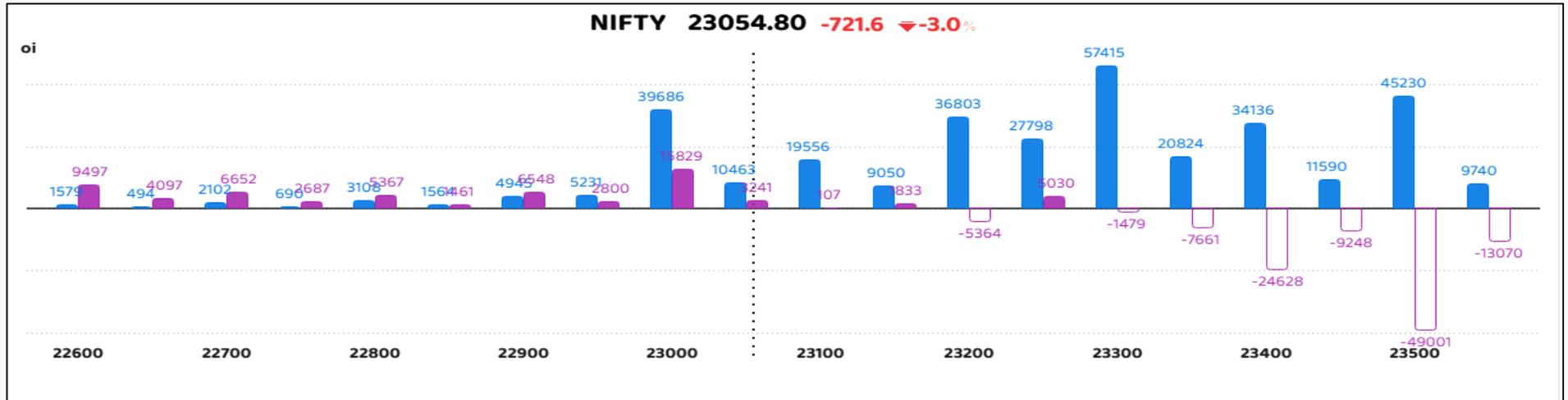


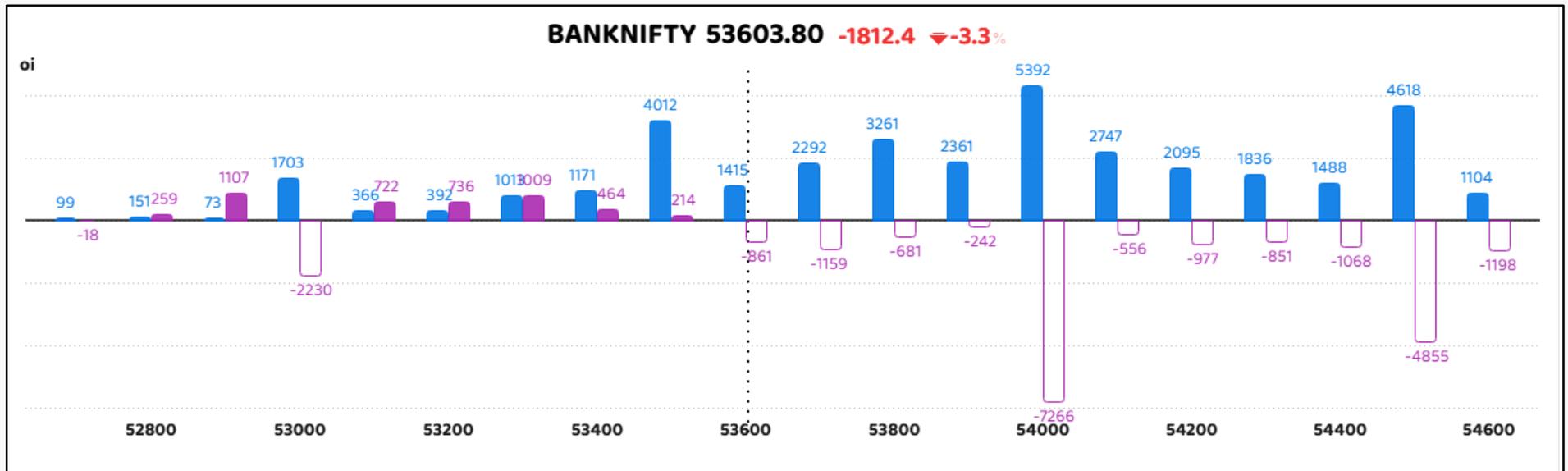
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 23,300 Call and the 23,500 Put



For the Bank Nifty, the biggest open interest changes were seen at the 54,000 Call & the 54,000 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
HDFC BANK LTD	798.2	-5.2	33.1	33.1	1.5	100.0
HINDUSTAN UNILEV	2,077.3	-2.7	27.1	27.1	0.8	100.0
INDIAN OIL CORP	142.7	-3.7	42.2	42.2	17.9	100.0
ORACLE FINANCIAL	6,368.5	-3.4	55.9	55.9	12.1	100.0
HINDUSTAN PETRO	324.8	-2.7	53.9	53.9	22.8	100.0

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
OBEROI REALTY	1,445.8	-1.8	20.4	50.6	20.4	0.0
ASHOK LEYLAND	168.6	-5.6	42.7	734.8	18.5	3.4
ADITYA BIRLA CAP	312.3	-4.9	38.7	658.6	8.2	4.7
HINDALCO INDS	897.1	-3.9	38.5	254.2	12.3	10.8
CHOLAMANDALAM IN	1,455.1	-4.5	40.0	186.8	19.6	12.2

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
HDFC BANK LTD	798.2	-5.2	33.1	33.1	1.5	100.0
HINDUSTAN UNILEV	2,077.3	-2.7	27.1	27.1	0.8	100.0
INDIAN OIL CORP	142.7	-3.7	42.2	42.2	17.9	100.0
HINDUSTAN PETRO	324.8	-2.7	53.9	53.9	22.8	100.0
ORACLE FINANCIAL	6,368.5	-3.4	55.9	55.9	12.1	100.0

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
OBEROI REALTY	1,445.8	-1.8	20.4	50.6	20.4	0.0
SHREE CEMENT	23,335.0	-2.5	14.2	31.5	7.9	0.9
TATA CONSULTANCY	2,356.0	-3.5	10.7	44.6	1.6	3.3
STEEL AUTHORITY	152.6	-1.2	13.4	91.3	0.6	3.5
PI INDUSTRIES	2,890.9	-1.3	19.8	57.8	12.5	4.0

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
CROMPTON	242.4	-3.1	5,143	1,060	4.9
IRFC	95.0	-3.3	13,460	3,609	3.7
ONGC	269.1	1.5	96,447	26,827	3.6
OIL	477.0	1.4	45,191	12,946	3.5
COLPAL	1,889.7	-2.7	26,208	7,636	3.4

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
OBEROIRLTY	1,445.8	-1.8	2,255	4,532	2.0
PAGEIND	31,224.6	-1.6	5,838	11,086	1.9
IOC	142.8	-3.7	15,998	19,948	1.2
PETRONET	270.8	-7.1	15,900	19,658	1.2
BPCL	286.0	-5.8	27,225	33,037	1.2

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
ABCAPITAL	312.3	-4.9	7,443	7,340	100.0
ADANIPOINTS	1,356.0	-3.3	20,977	20,921	100.0
APLAPOLLO	1,929.8	-4.2	5,978	5,841	100.0
ADANIGREEN	854.9	-4.1	16,712	16,640	100.0
HINDPETRO	324.8	-7.0	13,146	11,669	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	420.0	-4.8	11,440	11,263	100.0
FEDERALBNK	265.9	-2.1	8,340	8,223	100.0
HINDPETRO	324.8	-7.0	10,916	9,035	100.0
BPCL	286.0	-5.8	12,253	9,663	100.0
BANKINDIA	145.8	-4.4	4,686	4,460	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
BPCL	286.0	-5.8	27,225	27,030	100.0
DALBHARAT	1,831.9	-4.4	9,853	9,677	100.0
HINDPETRO	324.8	-7.0	30,422	21,082	100.0
HDFCBANK	798.3	-5.3	6,11,044	2,52,274	100.0
MANAPPURAM	264.2	-2.2	17,613	18,418	95.6

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
HINDPETRO	324.8	-7.0	32,261	23,305	100.0
HDFCBANK	798.3	-5.3	4,62,533	1,56,957	100.0
PIDILITIND	1,308.9	-5.5	4,202	3,436	100.0
VEDL	665.4	-2.0	40,193	43,284	92.9
IOC	142.8	-3.7	19,948	22,491	88.7

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
INDIGO	4,154.4	-4.7	61,511	34,243	1.8
HINDPETRO	324.8	-7.0	13,146	7,556	1.7
BPCL	286.0	-5.8	16,909	9,819	1.7
LODHA	818.0	-4.2	9,004	5,307	1.7
BLUESTARCO	1,733.5	-4.7	6,140	3,710	1.7

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
HINDPETRO	324.8	-7.0	10,916	6,686	1.6
BPCL	286.0	-5.8	12,253	7,691	1.6
SHREECEM	23,335.0	-2.5	2,977	1,884	1.6
PGEL	504.6	-6.0	7,890	5,013	1.6
BOSCHLTD	30,136.0	-2.8	5,866	3,750	1.6

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
HDFCBANK	798.3	-5.3	6,11,044	1,39,119	4.4
MANAPPURAM	264.2	-2.2	17,613	5,619	3.1
DALBHARAT	1,831.9	-4.4	9,853	3,750	2.6
HINDPETRO	324.8	-7.0	30,422	11,900	2.6
NUVAMA	1,151.0	-2.3	6,894	2,761	2.5

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
HDFCBANK	798.3	-5.3	4,62,533	84,888	5.4
POLICYBZR	1,488.7	-3.3	20,018	5,576	3.6
TATATECH	522.5	-4.8	6,833	2,038	3.4
PIDILITIND	1,308.9	-5.5	4,202	1,442	2.9
HINDPETRO	324.8	-7.0	32,261	11,317	2.9

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	2200	1251759	13.6%	1937	2200	764466	13.6%	JIOFIN	260	6652850	8.6%	239	250	3099650	4.4%
ADANIPTS	1500	1209825	10.6%	1356	1500	755250	10.6%	JSWSTEEL	1300	994950	15.0%	1131	1100	290250	-2.7%
APOLLOHOSP	7700	159375	6.2%	7252	6900	146750	-4.9%	KOTAKBANK	380	5332000	3.2%	368	360	5208000	-2.2%
ASIANPAINT	2400	506500	9.8%	2186	2000	709000	-8.5%	LT	4000	1592500	16.5%	3435	3500	591500	1.9%
AXISBANK	1240	4786250	2.7%	1207	1200	1117500	-0.6%	M&M	3500	593000	14.9%	3045	3500	342800	14.9%
BAJAJ-AUTO	9000	205500	1.5%	8869	9000	83625	1.5%	MARUTI	13000	287600	3.2%	12599	12000	97550	-4.8%
BAJAJFINSV	1840	1072500	7.3%	1715	1920	429750	12.0%	MAXHEALTH	980	275625	2.8%	953	950	179025	-0.3%
BAJFINANCE	900	3084000	8.1%	832	960	1233000	15.4%	NESTLEIND	1260	448000	6.2%	1186	1200	210000	1.2%
BEL	470	5169900	9.1%	431	450	2344125	4.5%	NTPC	390	20265000	4.3%	374	380	3631500	1.6%
BHARTIARTL	2000	2547900	9.5%	1827	1800	1375125	-1.5%	ONGC	300	12840750	11.5%	269	265	4621500	-1.5%
CIPLA	1350	1746750	8.9%	1239	1260	364125	1.7%	POWERGRID	305	8312500	2.8%	297	300	2492800	1.1%
COALINDIA	500	4137750	10.1%	454	450	2178900	-0.9%	RELIANCE	1400	10876000	1.1%	1385	1400	3423500	1.1%
DRREDDY	1350	1851875	5.9%	1275	1300	570000	2.0%	SBILIFE	2100	690750	10.3%	1903	1900	773625	-0.2%
EICHERMOT	8000	295000	17.8%	6793	8500	108400	25.1%	SBIN	1200	4545750	14.4%	1049	1000	2545500	-4.7%
ETERNAL	250	11744275	9.3%	229	200	9171350	-12.6%	SHRIRAMFIN	1100	1632675	15.8%	950	1000	2407350	5.3%
GRASIM	2860	393500	9.7%	2608	2500	273750	-4.1%	SUNPHARMA	1800	2320150	3.2%	1744	1800	414750	3.2%
HCLTECH	1500	845600	14.3%	1312	1300	344750	-0.9%	TATACONSUM	1300	619300	24.4%	1045	1060	344850	1.5%
HDFCBANK	850	9915400	6.5%	798	800	6309600	0.2%	TMPV	400	5068000	29.3%	309	300	3044800	-3.0%
HDFCLIFE	750	1849100	18.4%	634	620	591800	-2.1%	TATASTEEL	220	14575000	15.5%	191	190	8420500	-0.3%
HINDALCO	920	2609600	2.6%	897	900	1495200	0.3%	TCS	2700	1573600	14.6%	2356	2600	678650	10.4%
HINDUNILVR	2160	907500	4.0%	2077	2100	299100	1.1%	TECHM	1440	1678200	7.4%	1341	1340	1732800	0.0%
ICICIBANK	1400	4059300	12.0%	1250	1400	2303700	12.0%	TITAN	4760	359275	17.9%	4038	4000	252525	-0.9%
INDIGO	4300	1268400	3.5%	4154	4000	676350	-3.7%	TRENT	4000	635800	14.9%	3482	3600	153600	3.4%
INFY	1400	5069200	14.7%	1221	1400	1540000	14.7%	ULTRACEMCO	11400	91250	5.4%	10814	10900	32550	0.8%
ITC	310	23056000	4.0%	298	305	3888000	2.3%	WIPRO	200	9909000	6.2%	188	190	4257000	0.8%

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

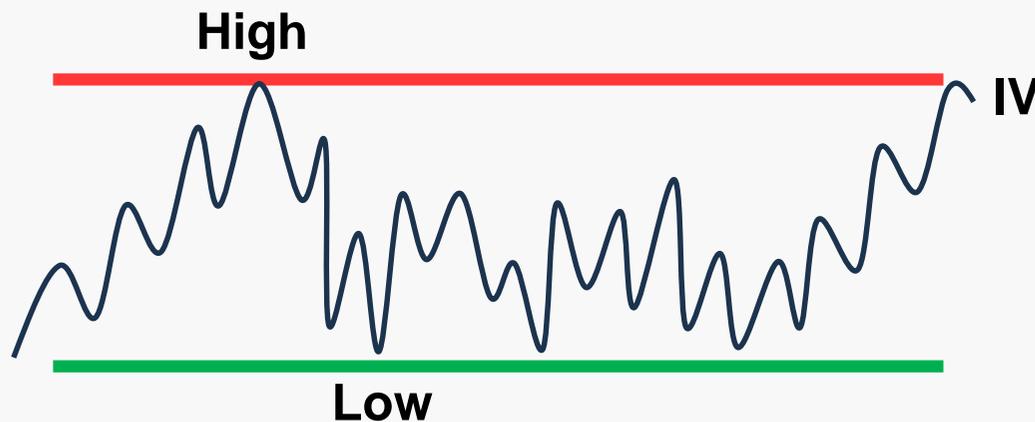
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

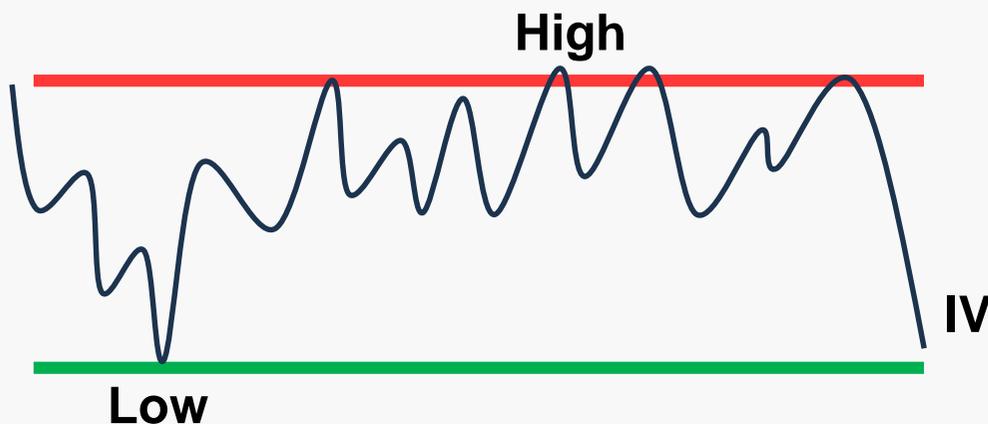
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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

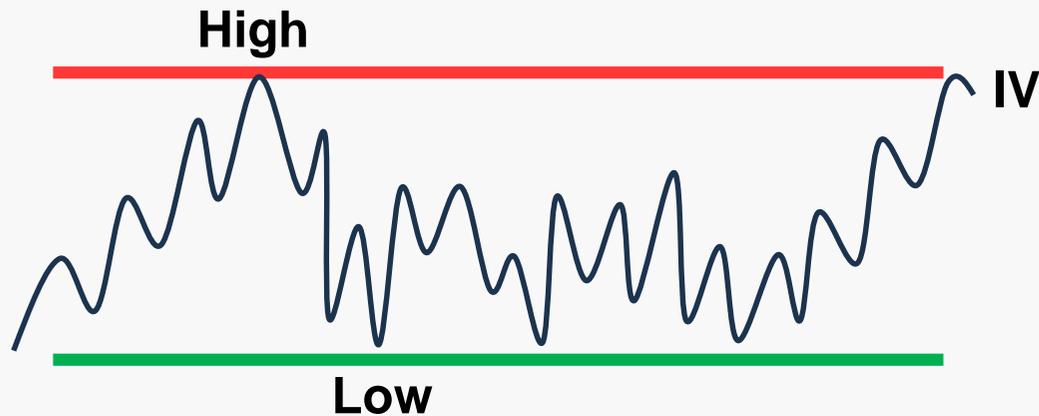


Assume the wavy line is IV over the last one year. Notice that today's IV is close to the highest high seen in the last one year. This means that IV for this option is expensive compared to where it's been in the last 12 months.

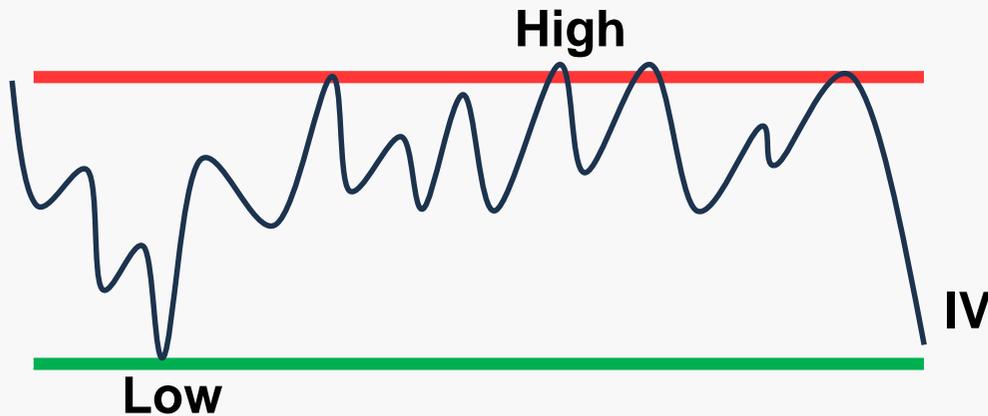


In this chart, notice that today's IV is close to the lowest low seen in the last 12 months. This means that IV for this option is cheap today compared to where it has traded over the last one year.

- **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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Compliance Officer Details: Name – Mr Rajiv Kejriwal, Tel No. – 022-68555574, Email id – compliance.officer@axisdirect.in ;

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