



Daily Derivatives Report

Nifty Futures

	Value	Change
Most recent settlement	25,036	0.4%▼
Open Interest (OI)	1,97,39,400	3.1%▲
Change in OI (abs)	1,97,39,400	6,01,650▲
Premium / Discount (Abs)	40	26▼
Inference	Short Build Up	

Bank Nifty Futures

	Value	Change
Most recent settlement	55,687	0.1%▼
Open interest (OI)	21,75,665	5.9%▲
Change in OI (abs)	21,75,665	1,27,020▲
Premium / Discount (Abs)	115	91▼
Inference	Short Build Up	

Volatility Insights

	Value	Change
India VIX Index	18.02	0.52▼
Nifty ATM IV (%)	20.79	4.1▼
Bank Nifty ATM IV (%)	24.46	6.2▼
PCR (Nifty)	0.76	0.06▼
PCR (Bank Nifty)	0.85	0.01▼

The Long Ratio for FII Index Futures **slide** at 28.8%, **down** from 31.3% in the **last session..**

Single Stock Futures Movers

Long Buildup (Open Interest Higher + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
LICI	82,22,050	46.9%	941.85	8.1%
INDIANB	62,87,450	10.1%	608.15	1.6%
HINDPETRO	4,76,15,850	6.2%	417.6	1.7%
MANAPPURAM	3,65,10,000	6.2%	232.57	0.4%
CYIENT	35,19,125	6.1%	1347.3	0.1%

Short Buildup (Open Interest Higher + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ITC	12,90,27,200	17.5%	420.95	-1.4%
IRCTC	1,71,72,750	12.5%	775.1	-2.4%
CHAMBLFERT	1,06,56,150	9.2%	583.9	-2.2%
CESC	2,03,11,100	8.3%	167.16	-0.7%
ABFRL	4,00,63,400	7.1%	87	-1.4%

Short Covering (Open Interest Lower + Price Higher)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
KEI	11,66,125	-12.5%	3633.8	2.8%
CAMS	18,22,900	-11.3%	3982.1	0.1%
HFCL	7,44,68,050	-10.3%	87.7	0.3%
IGL	1,97,69,750	-8.3%	213.27	3.3%
MARICO	1,95,32,400	-7.1%	717.85	0.3%

Long Unwinding (Open Interest Lower + Price Lower)				
Symbol	Open Interest	Chg (%)	Price	Chg (%)
ESCORTS	2,03,100	-60.2%	3370.2	-4.6%
MRF	24,300	-29.9%	142710	-0.9%
APOLLOTYRE	23,18,800	-28.5%	495.35	-0.1%
DEEPAKNTR	4,53,000	-28.4%	1999.6	-2.2%
RAMCOCEM	39,49,100	-14.0%	956.6	-1.7%

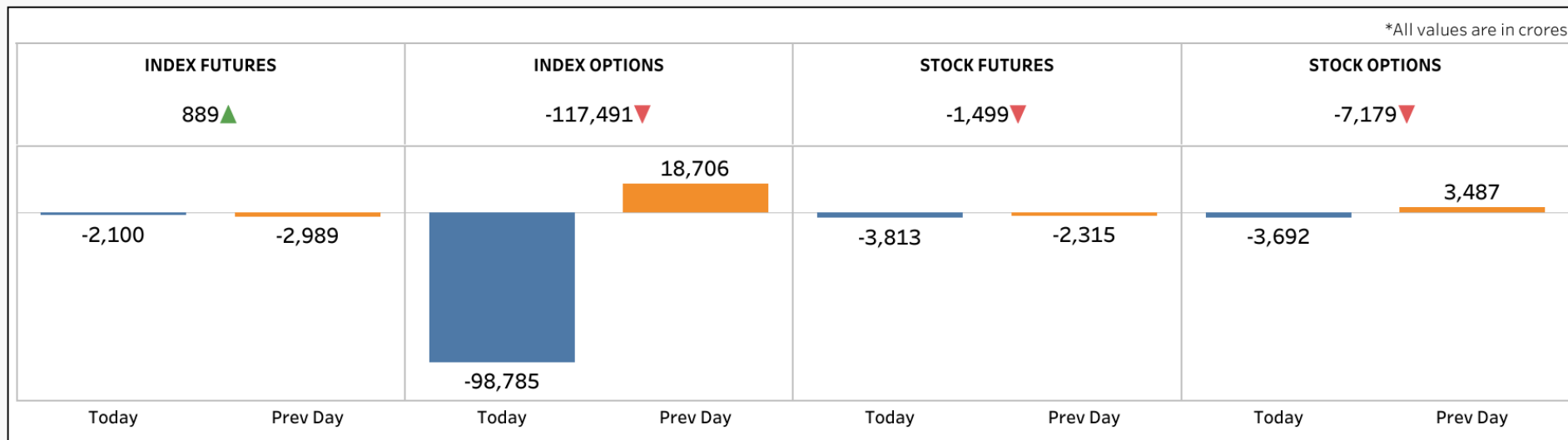
For an explanation of all the contents in this report, kindly click on the hyperlink at the top right which will take you to the end-of-report appendix

Open Interest Trends by Participant

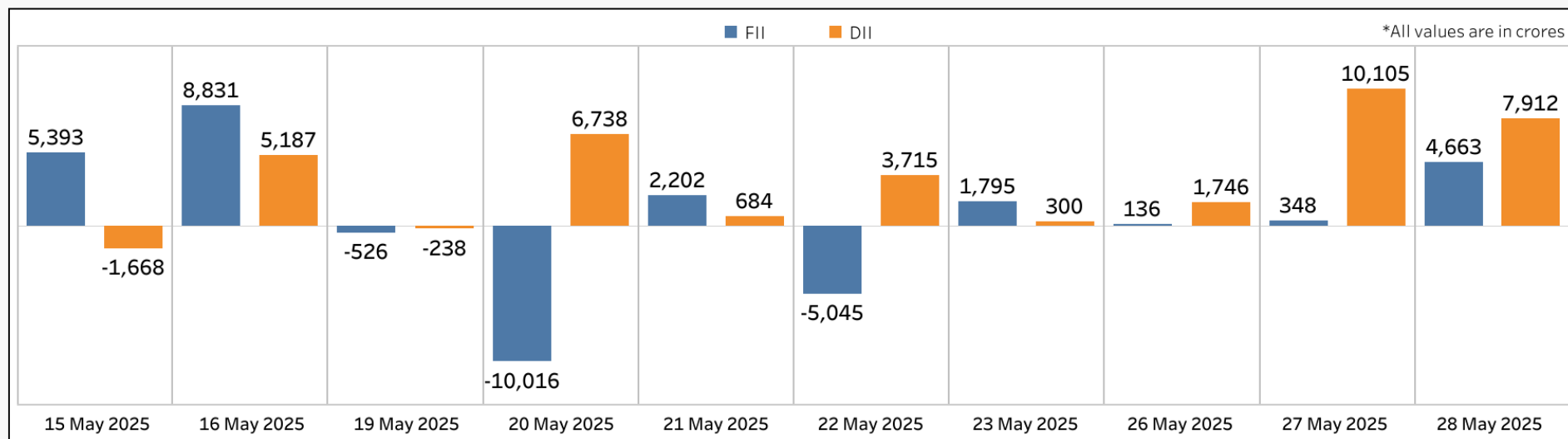
▲ and ▼ indicate positive and negative absolute changes, respectively

FII				DII			
INDEX CALL	INDEX FUT	INDEX PUT	STK FUT	INDEX CALL	INDEX FUT	INDEX PUT	STK FUT
-283,760 ▼	4,539 ▲	-371,230 ▼	-31,235 ▼	0	-20,152 ▼	293 ▲	58,140 ▲
20,877		86,390			22,838		16,833
-262,883	-11,568 -16,107	-284,840	-62,569 -31,334	0 0	2,686	0	-41,307
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
119,379	-78,987	163,025	1,705,430	70	12,475	45,335	-3,873,490
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	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
493,869 ▲	-862 ▼	541,017 ▲	-22,608 ▼	-210,109 ▼	16,475 ▲	-170,082 ▼	-4,297 ▼
442,607		393,817		30,385	2,250	61,104	3,795
-51,262	6,632 7,494	-147,200	46,238 68,846	-179,724	-14,225	-108,978	-502
Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S	Net O/S
-146,421	72,443	-226,845	1,907,871	26,972	-5,931	18,485	260,189
Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day	Today Prev Day

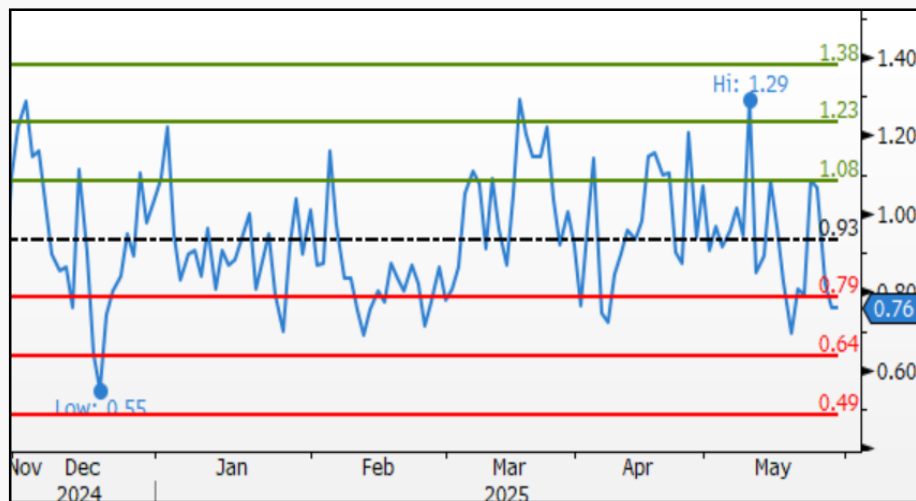
Daily Net Open Interest Change



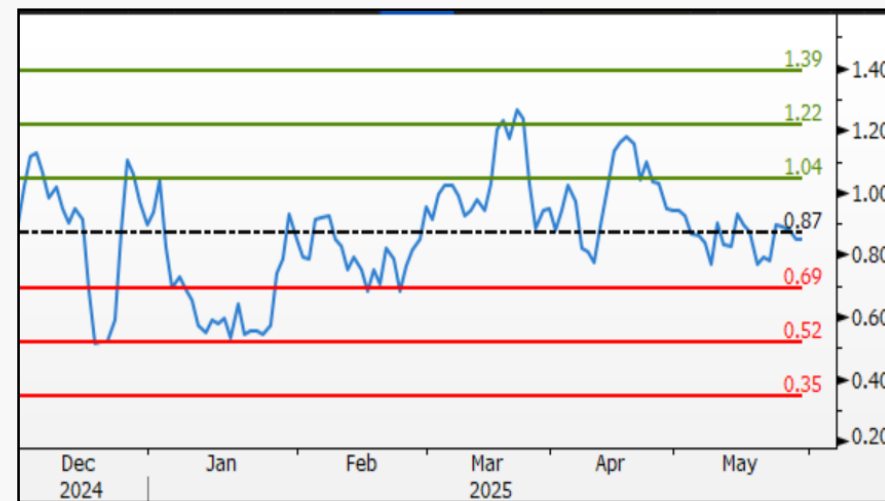
DII and FII Daily Cash Market Flows



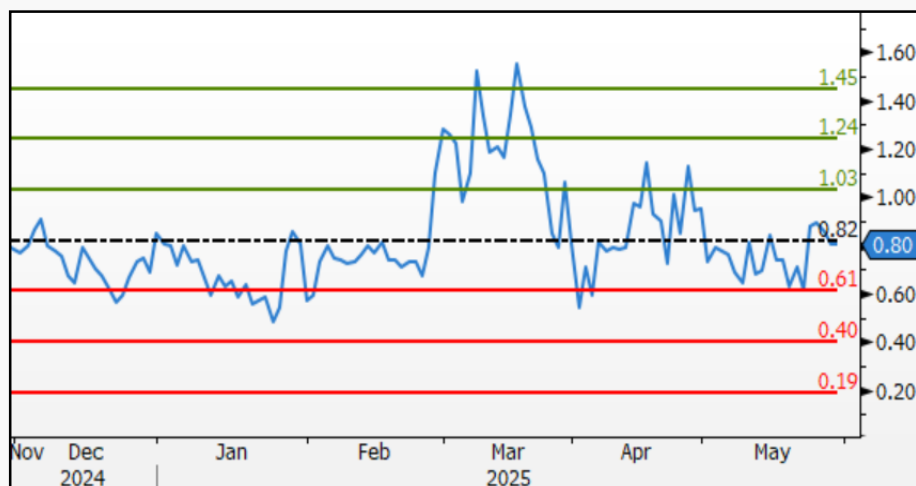
Nifty



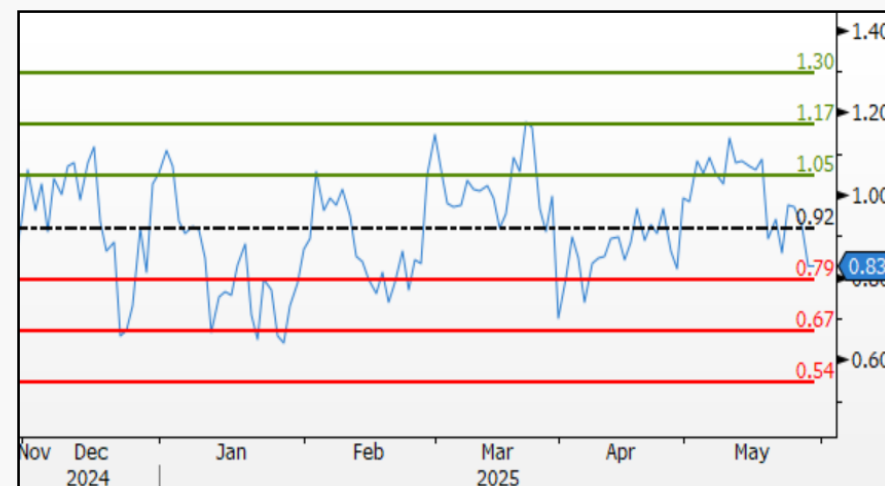
Bank Nifty



Fin Nifty

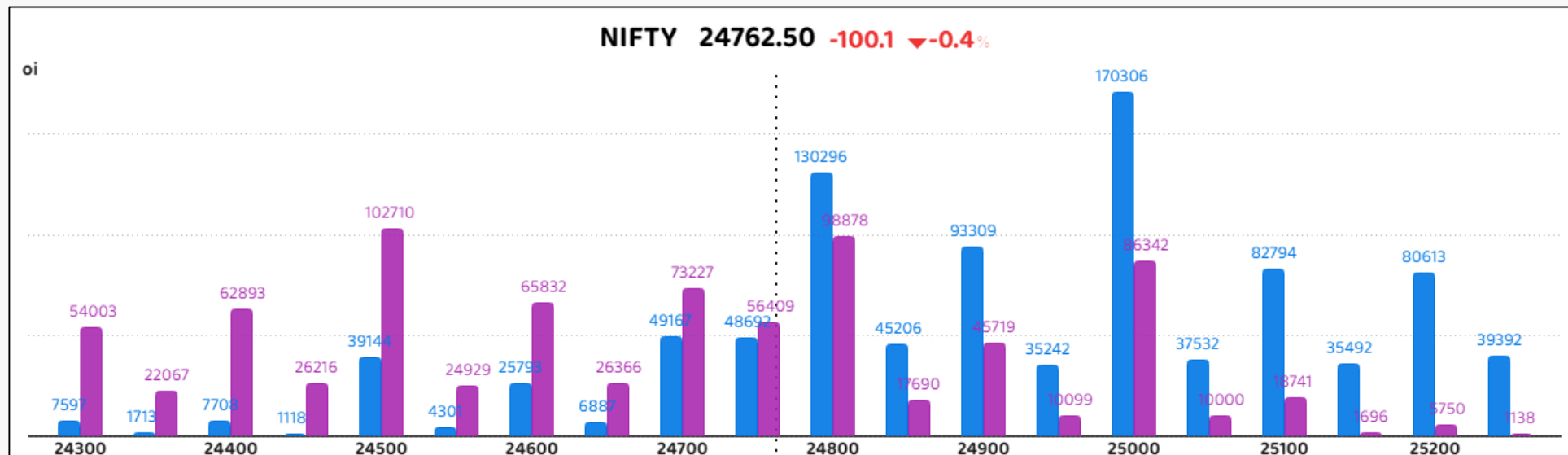


Midcap Select Nifty



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

Call  Put 



For the Nifty, the 25,000 Call and the 24,500 Put had the highest call and put concentration (contracts). For the Bank Nifty, the 56,000 Call and the 55,000 Put saw the most amount of open interest.

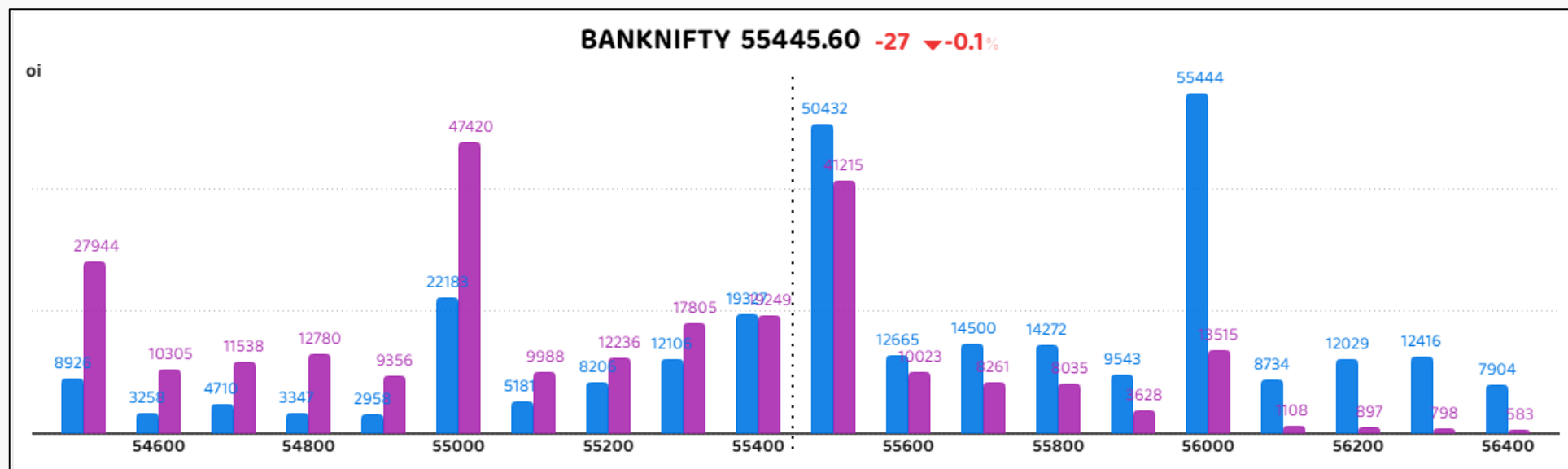
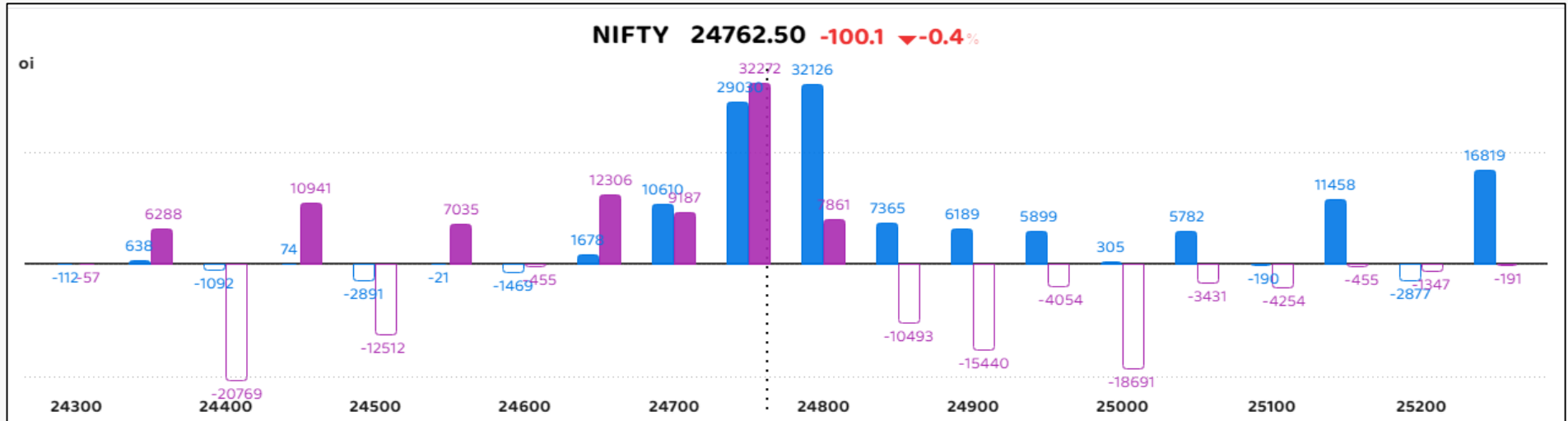


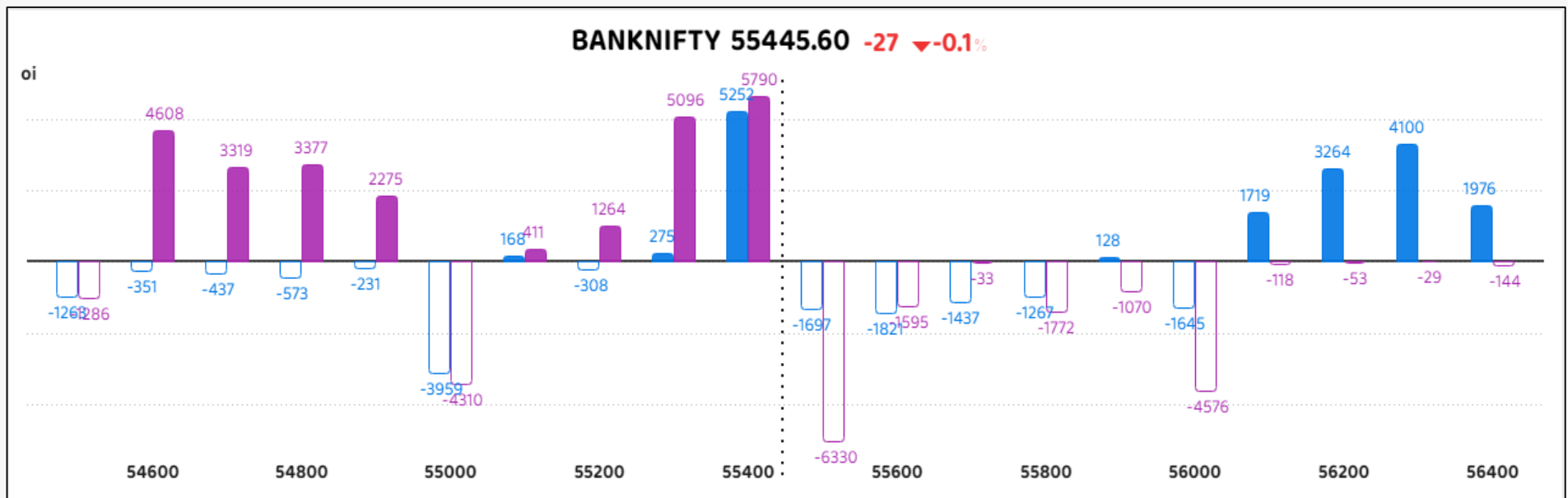
Chart quotes show front-month Nifty and Bank Nifty futures levels along with absolute and percentage change from prior trading session

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

Call ■ Put ■



The largest open interest changes (contracts) were seen at the 24,800 Call and the 24,750 Put



For the Bank Nifty, the biggest open interest changes were seen at the 55,400 Call & the 55,500 Put

Stocks with High IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
DEEPAK NITRITE	2000.1	-1.9	62.9	64.2	21.4	96.9
ESCORTS KUBOTA L	3373	-4.5	41.8	44.2	22.7	88.9
BAJAJ AUTO LTD	8849	-1.3	31.1	36.4	2.1	84.6
DIXON TECHNOLOGI	14816	-1.8	41.3	53.0	1.8	77.2
BIRLASOFT LTD	423.3	1.9	42.2	52.7	10.1	75.4

Stocks with Low IVR:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVR (1m/1y)
INDIAN RENEWABLE	173.6	-0.9	41.9	69.2	41.9	0.0
ADANI GREEN ENER	1001.85	-1.1	43.1	74.3	43.1	0.0
TATA STEEL LTD	161.24	-0.3	7.9	110.0	5.6	2.2
BANK OF BARODA	243.03	0.6	25.9	66.9	24.3	3.8
INDIAN OIL CORP	144.2	0.6	24.9	51.7	23.7	4.4

Stocks With High IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
DEEPAK NITRITE	2000.1	-1.9	62.9	64.2	21.4	100.0
ESCORTS KUBOTA L	3373	-4.5	41.8	44.2	22.7	99.1
ADITYA BIRLA FAS	87	-1.1	41.4	66.6	9.9	92.3
RBL BANK LTD	207.49	-1.6	53.3	79.2	13.3	92.0
BAJAJ AUTO LTD	8849	-1.3	31.1	36.4	2.1	90.7

Stocks With Low IVP:

Ticker	Last Px	Chg (%)	30d IV	30d IV High	30d IV Low	IVP (1m/1y)
INDIAN RENEWABLE	173.6	-0.9	41.9	69.2	41.9	0.0
ADANI GREEN ENER	1001.85	-1.1	43.1	74.3	43.1	0.0
TATA STEEL LTD	161.24	-0.3	7.9	110.0	5.6	0.7
MANAPPURAM FINAN	232.08	0.1	9.7	64.2	2.7	2.2
PAGE INDUSTRIES	46095	-1.5	17.4	39.9	13.0	3.7

Stocks With High Call Volume To Put Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Call to Put Vol
INDIAN BANK	608.15	1.8	14542	2816	5.2
SYNGENE INTERNAT	650.25	-0.6	5674	1195	4.8
ADITYA BIRLA FAS	87	-1.1	4735	1078	4.4
IRB INFRASTRUCTU	51.78	1.2	5337	1272	4.2
YES BANK LTD	21.11	-0.1	8432	2013	4.2

Stocks With High Put Volume To Call Volume

Ticker	Last Px	Chg (%)	Total Call Vol	Total Put Vol	Put to Call Vol
PHOENIX MILLS	1590.1	-1.5	2222	4113	1.9
PIDILITE INDS	3001	-0.9	1945	3162	1.6
SHREE CEMENT	29895	-3.4	35156	54815	1.6
IIFL FINANCE LTD	421.5	1.0	2532	3534	1.4
MAX FINANCIAL SE	1503.5	1.3	3945	5245	1.3

Call Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Call OI	Highest Call OI	Relative to Highest Call OI
CUMMINS INDIA	2976.1	0.1	16739	16739	100.0
LIC INSURANCE CO	942	8.1	24270	24270	100.0
TATA TECHNOLOGIE	757.6	-2.0	13053	13547	96.4
INDIAN BANK	608.15	1.8	4237	4436	95.5
VODAFONE IDEA LT	7.12	2.3	43640	47601	91.7

Put Open Interest Relative to Record High

Ticker	Last Px	Chg (%)	Total Put OI	Highest Put OI	Relative to Highest Put OI
TATA TECHNOLOGIE	757.6	-2.0	9029	9029	100.0
CENTRAL DEPOSITO	1519.3	3.6	19694	19694	100.0
JIO FINANCIAL SE	290.35	-0.4	24840	24840	100.0
TUBE INVESTMENTS	3016.2	-0.9	3617	3617	100.0
SBI LIFE INSURAN	1807.4	0.2	11828	11828	100.0

Call Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Call Vol	Highest CV	Relative to Highest CV
JIO FINANCIAL SE	290.35	-0.4	104205	104205	100.0
LIC INSURANCE CO	942	8.1	307626	307626	100.0

Put Volume Relative to Record High

Ticker	Last Px	Chg (%)	Total Put Vol	Highest PV	Relative to Highest PV
LIC INSURANCE CO	942	8.1	105517	105517	100.0
JIO FINANCIAL SE	290.35	-0.4	46245	49288	93.8

Call Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Call OI	Avg OI Call 20D	20D Call OI Ratio
LIC INSURANCE CO	942	8.1	24270	5975	4.1
SOLAR INDUSTRIES	16113	1.4	10388	4256	2.4
BALKRISHNA INDS	2478	0.0	7114	3018	2.4
BOSCH LTD	31630	-2.6	4352	1969	2.2
INDIAN RAILWAY C	776.35	-2.1	17652	8315	2.1

Put Open Interest to 20-day Average

Ticker	Last Px	Chg (%)	Total Put OI	Avg OI Put 20D	20D Put OI Ratio
LIC INSURANCE CO	942	8.1	14616	4022	3.6
SOLAR INDUSTRIES	16113	1.4	11441	3968	2.9
BALKRISHNA INDS	2478	0.0	4984	2130	2.3
SUPREME INDS LTD	4253.8	1.3	2877	1623	1.8
MAX FINANCIAL SE	1503.5	1.3	4265	2443	1.7

Call Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Call Vol	Avg Vol Cal 20D	20D Call Vol Ratio
BOSCH LTD	31630	-2.6	27562	3407	8.1
MANAPPURAM FINAN	232.08	0.1	16460	2660	6.2
HINDUSTAN COPPER	248.48	1.4	24674	4847	5.1
SHREE CEMENT	29895	-3.4	35156	7488	4.7
CUMMINS INDIA	2976.1	0.1	39622	12487	3.2

Put Volume Relative to 20-day Average

Ticker	Last Px	Chg (%)	Total Put Vol	Avg Vol Put 20D	20D Put Vol Ratio
SHREE CEMENT	29895	-3.4	54815	5450	10.1
BOSCH LTD	31630	-2.6	14353	1615	8.9
MANAPPURAM FINAN	232.08	0.1	12713	2107	6.0
HINDUSTAN COPPER	248.48	1.4	8490	1963	4.3
GRANULES INDIA	522.4	-1.2	10535	2778	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	2600	1233600	3.4%	2515	2400	510600	-4.6%	ITC	440	9305600	4.7%	420	420	2318400	0.0%
ADANIPTS	1400	1166400	-0.8%	1411	1400	1034800	-0.8%	JIOFIN	300	5808000	3.3%	290	250	3164700	-13.9%
APOLLOHOSP	7000	172875	0.6%	6957	6150	89500	-11.6%	JSWSTEEL	1050	976725	4.9%	1001	970	890325	-3.1%
ASIANPAINT	2500	598800	8.5%	2303	2300	476800	-0.1%	KOTAKBANK	2200	1092400	6.1%	2074	2100	390800	1.2%
AXISBANK	1220	2996250	2.1%	1195	1200	1606875	0.4%	LT	3500	822750	-4.0%	3646	3600	552000	-1.3%
BAJAJ-AUTO	9000	147300	1.7%	8849	8600	83250	-2.8%	M&M	3300	811825	10.1%	2998	2900	372400	-3.3%
BAJAJFINSV	2100	2455000	3.8%	2022	2000	431000	-1.1%	MARUTI	13000	322550	5.4%	12331	12000	215650	-2.7%
BAJFINANCE	9500	407750	2.5%	9268	9000	322125	-2.9%	NESTLEIND	2500	354000	3.3%	2419	2440	127400	0.9%
BEL	400	6985350	2.4%	390	380	4907700	-2.7%	NTPC	350	13060500	2.9%	340	345	3900000	1.5%
BHARTIARTL	1900	2824825	2.4%	1856	1840	1542325	-0.9%	ONGC	250	10433500	3.0%	243	240	5661425	-1.1%
CIPLA	1600	1326000	9.0%	1469	1300	430950	-11.5%	POWERGRID	330	4161600	13.3%	291	320	1101600	9.9%
COALINDIA	410	3725400	3.0%	398	390	2251200	-2.1%	RELIANCE	1450	7069000	2.6%	1413	1350	2946500	-4.5%
DRREDDY	1240	1461875	-0.2%	1243	1150	614375	-7.5%	SBILIFE	1780	1616250	-1.5%	1807	1780	769875	-1.5%
EICHERMOT	5700	208600	7.0%	5327	4500	135975	-15.5%	SBIN	820	8740500	2.9%	797	800	3003000	0.4%
ETERNAL	240	10460000	7.1%	224	230	5542000	2.6%	SHRIRAMFIN	700	1615500	6.8%	656	600	1191750	-8.5%
GRASIM	2740	307000	6.3%	2578	2340	126000	-9.2%	SUNPHARMA	1700	2333100	2.0%	1666	1600	624750	-4.0%
HCLTECH	1700	1239700	2.6%	1657	1580	662550	-4.7%	TATACONSUM	1300	752400	15.9%	1121	1100	443232	-1.9%
HDFCBANK	1980	4414850	2.9%	1924	1920	1888150	-0.2%	TATAMOTORS	740	4942300	3.1%	718	700	2896850	-2.5%
HDFCLIFE	760	1806200	-3.7%	789	750	1853500	-5.0%	TATASTEEL	160	15961000	-0.8%	161	155	11473000	-3.9%
HEROMOTOCO	4500	323100	3.2%	4362	3900	198900	-10.6%	TCS	3600	807800	2.9%	3498	3400	364000	-2.8%
HINDALCO	700	2672600	7.7%	650	630	834400	-3.1%	TECHM	1600	728400	1.2%	1580	1580	496800	0.0%
HINDUNILVR	2400	728100	1.6%	2362	2400	362700	1.6%	TITAN	3500	231000	-2.1%	3575	3500	217175	-2.1%
ICICIBANK	1460	4017300	0.4%	1454	1400	1367800	-3.7%	TRENT	5700	323700	2.5%	5559	5100	226100	-8.3%
INDUSINDBK	850	2723000	5.6%	805	750	1900000	-6.8%	ULTRACEMCO	12500	142100	11.2%	11238	10000	89100	-11.0%
INFY	1600	2492400	1.8%	1572	1500	988000	-4.6%	WIPRO	300	9783000	21.2%	247	250	2379000	1.0%

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

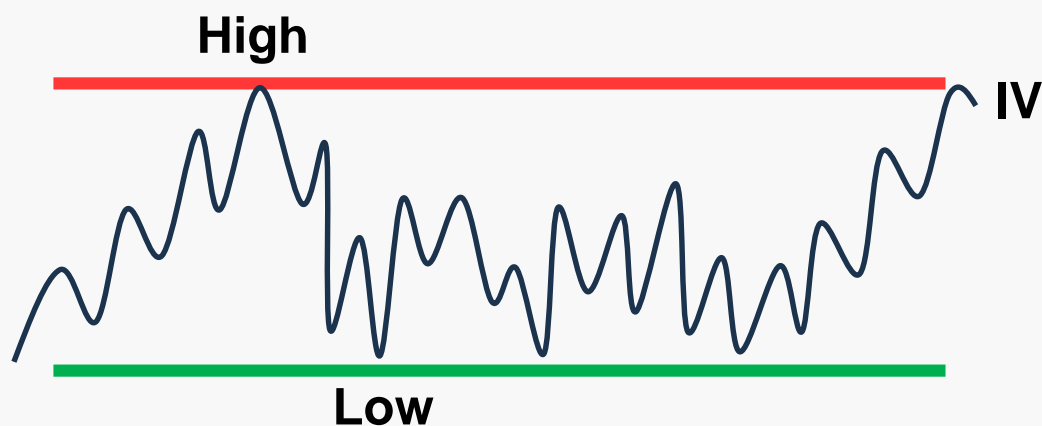
If distance to call strike from current market price = distance to put strike from current market price, then the %Away columns will be uncolored

- 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**

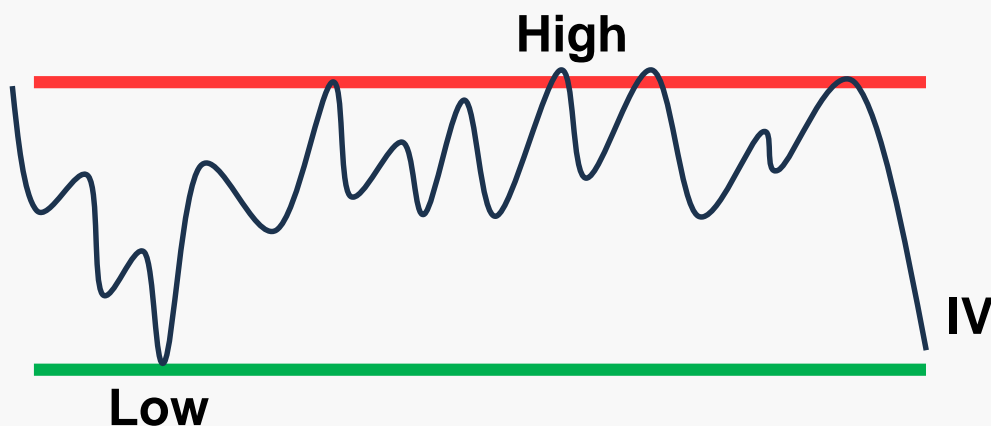
**ATM IV is the midpoint of the IV for the ATM call and put respectively*

- **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), 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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